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LOCKHEED MARTIN

December 19, 2018

VIA OVERNIGHT CARRIER

Mr. James R. Carroll
Program Administrator
Land Restoration Program
Land Management Administration
Maryland Department of the Environment
1800 Washington Road, Suite 625
Baltimore, Maryland 21230

Re: Transmittal of the 2018 Groundwater Monitoring Report for the
Dump Road Area and Main Terminal Area
Martin State Airport, 701 Wilson Point Road, Middle River, Maryland

Dear Mr. Carroll:

For your review, please find enclosed two hard copies with CDs of the above-referenced document. This document presents groundwater monitoring results from 2018 monitoring of the Dump Road Area and the Main Terminal Area on Martin State Airport in Middle River, Maryland.

If you have any questions or require any additional information please contact me by phone at 301-548-2223, or via e-mail at charles.trione@lmco.com.

Sincerely,

Charles Trione
Project Lead, Environmental Remediation
Lockheed Martin Corporation

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Jann Richardson, Lockheed Martin

2018 GROUNDWATER MONITORING REPORT FOR THE DUMP ROAD AREA AND MAIN TERMINAL AREA, MARTIN STATE AIRPORT 701 WILSON POINT ROAD MIDDLE RIVER, MARYLAND

Prepared for:
Lockheed Martin Corporation

Prepared by:
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December 2018

Approved by:
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ACRONYMS AND ABBREVIATIONS

BTEX	benzene, toluene, ethylbenzene, and xylenes
CD	compact disc
cis-1,2-DCE	cis-1,2-dichloroethene
cVOCs	chlorinated volatile organic compounds
DA	Drum Area
DCE	dichloroethene
DO	dissolved oxygen
DRA	Dump Road Area
DRO	diesel-range organics
GRO	gasoline-range organics
HAA	haloacetic acid
IDW	investigation-derived waste
Lockheed Martin	Lockheed Martin Corporation
MAA	Maryland Aviation Administration
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
µg/L	microgram(s) per liter
mL/min	milliliter(s) per minute
MSA	Martin State Airport
MT	Main Terminal
NAA	natural-attenuation assessment
NAVD88	North American Vertical Datum of 1988
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
pCi/L	picocurie(s) per liter
PHA	Petroleum Hydrocarbon Area
PPE	personal protective equipment
QA/QC	quality assurance/quality control
REC	recognized environmental condition
SVOC	semivolatile organic compound

Tetra Tech	Tetra Tech, Inc.
TB	trip blank
TCE	trichloroethene
TDS	total dissolved solids
TIC	tentatively identified compound
TPH	total petroleum hydrocarbon
TT Area East	Taxiway Tango Area East
TT Median Area	Taxiway Tango Median Area
USDOT	United States Department of Transportation
USEPA	United State Environmental Protection Agency
UST	underground storage tank
VAS	vertical aquifer sampling
VC	vinyl chloride
VOC	volatile organic compound

SECTION 1
INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this 2018 Groundwater Monitoring Report for the Dump Road Area and Main Terminal Area summarizing groundwater sampling procedures and chemical analytical results for groundwater samples collected in May–July 2018 at Martin State Airport (MSA) in Middle River, Maryland (Figure 1-1). Sampling objectives in accordance with the groundwater monitoring work plan (Tetra Tech, Inc. [Tetra Tech], 2018a) were to:

- provide a current round of groundwater data for selected monitoring wells in the Dump Road Area and Main Terminal area
- better understand the nature and extent of contamination in groundwater
- evaluate the natural attenuation of the chemicals of concern in groundwater at Martin State Airport

These data, in conjunction with previously collected site data, support numerical modeling of shallow-groundwater flow-patterns, including that imparted by the groundwater interim remedial action (IRA) and direct groundwater discharge to Frog Mortar Creek. These data also support review of the ongoing Dump Road Area (DRA) groundwater extraction and treatment system that has been operating since November 2017.

All groundwater samples were chemically analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) including 1,4-dioxane, total metals, and dissolved metals. Some groundwater samples were also analyzed for perchlorate (a propellant constituent), total petroleum hydrocarbons (TPH)-diesel-range organics (DRO), TPH-gasoline-range organics (GRO), hexavalent chromium, total radium, radium-228, haloacetic acids (HAAs), and natural-attenuation assessment (NAA) parameters. This report is organized as follows:

Section 2—Site Background: Briefly summarizes the site background and references recent reports containing detailed background information related to the project.

Section 3—Investigation Approach and Methodology: Presents the technical approach for groundwater monitoring and describes the field methodology employed for the investigation.

Section 4—Results: Presents the investigation results.

Section 5—Summary: Summarizes the investigation findings.

Section 6—References: Cites references used to compile this report.

SECTION 2
SITE BACKGROUND

Martin State Airport (MSA) is at 701 Wilson Point Road in Middle River, Maryland. It is bounded by Frog Mortar Creek to the east, Stansbury Creek to the west, and Eastern Boulevard to the north (Figure 2-1). These creeks conjoin at the southern site boundary and continue south to feed Middle River and Chesapeake Bay. The Dump Road Area (DRA), in the southeastern portion of MSA, is bounded by Frog Mortar Creek to the east and the main airport runway to the west. The Main Terminal (MT) area comprises approximately 280 acres in the northwestern portion of MSA, just east of Wilson Point Road and Dark Head Cove. The MT area consists of the main terminal building, aircraft hangars and fueling stations, several taxiways, and the northern portion of the runway. Figure 2-1 shows the locations of Martin State Airport, the Dump Road Area, and the Main Terminal area.

Lockheed Martin Corporation (Lockheed Martin) has conducted detailed environmental investigations at the DRA and at the MT since 1999 and 2010, respectively. Lockheed Martin has also conducted additional investigations at Strawberry Point, Greater Strawberry Point, and Frog Mortar Creek (Figure 2-1). Investigations of these latter areas are reported separately.

2.1 DUMP ROAD AREA

Environmental investigations of MSA began in the mid-1980s, when the Maryland Department of the Environment (MDE) made site inspections related to stored drums and a reported chemical dump. In 1989, MDE conducted a preliminary assessment of MSA that identified fill areas and ponds, the latter of which were reportedly used from the 1930s through the 1960s to dispose of spent battery acid, acid-type strippers, and other acidic solutions (MDE, 1989). Detailed investigations of the DRA began after July 1991, when the Maryland Aviation Administration (MAA) encountered four buried drums adjacent to Taxiway Tango while excavating trenches to install an electrical cable. Discovery of these drums led to an investigation of the surrounding area

for possible soil and groundwater contamination, as MDE required in its letters of January 6, 1992 and January 14, 1997 to MAA (MDE, 1992; 1997).

MAA conducted several investigations of the DRA from 1991–1998. These studies identified four areas where environmental sampling investigations have been focused: the Taxiway Tango Median Area (TT Median Area), the Petroleum Hydrocarbon Area (PHA), Pond 1, and the Drum Area (DA). These early investigation areas are shown on Figure 2-2.

From 1999–2010, Lockheed Martin conducted a remedial investigation (Tetra Tech, 2012c) and supplemental fieldwork to further delineate the extent of chemical contamination in soil, groundwater, and pond-sediment indicated by earlier DRA studies. Large areas of buried fill and debris, and surface and subsurface soil contamination were identified through geophysical surveys, membrane-interface probe field data, test pits, soil borings, and chemical analyses of soil and pond-sediment samples. The extent of buried fill and debris at the DRA was estimated to be approximately 25 acres (see Figure 2-2).

A 2012 review of historical aerial photographs (Tetra Tech, 2013b) identified what appear to be open burning areas, open pits or ponds, soil or debris piles, possible ammunition bunkers, ground scars, and fill areas (see shaded areas in Figure 2-2). Several of these historical features coincide with areas of elevated contaminant concentrations in soil and/or groundwater; these areas were later identified as possible contaminant-source areas and were subsequently investigated in 2012–2014 (Tetra Tech, Inc. [Tetra Tech], 2013a and 2014a, b).

Trichloroethene (TCE) and TCE-degradation daughter-products have been detected in groundwater throughout the investigation area, with the highest concentrations appearing in the upper and intermediate regions of the surficial aquifer. TCE has been detected in DRA groundwater at concentrations up to 490,000 micrograms per liter (µg/L) and is therefore a primary contaminant of concern in groundwater at the DRA. 1,4-Dioxane, benzene, toluene, xylenes, and several metals (typically co-located with chlorinated solvents) are also considered chemicals of concern in groundwater. TCE-degradation daughter-products (e.g., dichloroethene [DCE], vinyl chloride [VC], etc.) are typically co-located with TCE at MSA and are considered primary contaminants of concern in DRA groundwater. Additional details regarding DRA background and

history, including details of previous environmental investigations and discussions of contaminant-source areas at the DRA, are in the Dump Road Area Characterization of Possible Source Areas Report (Tetra Tech, 2013a), and therefore are discussed only briefly below. A detailed chronological discussion of investigations at the DRA from 1985–2012 is in Appendix A of the Dump Road Source-Areas Investigation Work Plan (Tetra Tech, 2012a).

2.2 MAIN TERMINAL

Previous investigations directly related to the MT area include the Environmental Evaluation Report for Martin State Airport Main Terminal (Tetra Tech, 2010b) and its addendum (Tetra Tech, 2010a). These evaluations concentrated on environmental impacts resulting from practices carried out between 1929–1975, when the Glenn L. Martin Company and Martin Marietta owned and operated on the property. Possible areas of environmental concern in the MT area were identified through local and federal library documents, historical aerial photographs, facility records, museum records, regulatory data, environmental database reviews, interviews with former employees, and environmental reports and data.

The environmental evaluation identified nine recognized environmental conditions (RECs)[1] (RECs #1–9) in the MT area (Tetra Tech, 2010b), along with five potential RECs (RECs #10–14). The addendum report (Tetra Tech, 2010a) identified eight additional RECs (RECs #15–22) and provided supplemental details on 10 of 14 initial/possible RECs. Additional information obtained during development of the addendum report led to upgrading potential REC #14 to a full REC, because an underground storage tank (UST) had once been located there. MT area RECs (exclusive of potential RECs #10–13) are shown in Figure 2-3.

A Phase II environmental site assessment for the MT area was conducted in 2010–2012 (Tetra Tech, 2012b and 2013c). Soil and groundwater samples were collected and analyzed for possible organic and inorganic constituents. Twelve shallow-aquifer wells (MT-MW-01S through MT-MW-12S) were installed around the perimeter of the airport hangars and the airport terminal building near the identified MT area RECs. Benzene (a petroleum-related volatile organic

[1]*Recognized environmental conditions (RECs) are based on the presence or likely presence of hazardous substances and/or petroleum products under conditions that could indicate a historical, existing, or potential release to the property's structures, soil, groundwater, or surface water.*

compound [VOC]) was detected in groundwater samples collected from well MT-MW02S in 2011 (50.5 micrograms per liter [µg/L]) and 2012 (87 µg/L); both concentrations exceed the MDE groundwater standard (5 µg/L) for benzene.

Seven other VOCs (acetone, carbon disulfide, carbon tetrachloride, chloroform, chloromethane, naphthalene, and toluene) were detected in groundwater samples collected in 2012, but concentrations of those analytes were below MDE groundwater standards. However, concentrations of total petroleum hydrocarbons (TPH)-gasoline-range organics (GRO), TPH-diesel-range organics (DRO), beryllium, nickel, and vanadium exceeded MDE groundwater standards in several samples. Detected concentrations of semivolatile organic compounds (SVOCs), including 1,4-dioxane, did not exceed MDE groundwater standards in the 2010–2012 samples. Additional details regarding the background and history of the MT area, including details of environmental investigations and REC discussions, are available in several previous documents (Tetra Tech, 2010a, 2010b, 2012b, and 2013c), and therefore are not repeated herein.

SECTION 3
INVESTIGATION APPROACH AND METHODOLOGY

This section summarizes the 2018 groundwater sampling program for the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport performed in accordance with the approved work plan (Tetra Tech, 2018a). The 2018 investigation includes synoptic groundwater-level measurements and laboratory analysis of collected groundwater samples. It augments previous data obtained from the DRA (between 2003 and 2016) and the MT area (between 2010 and 2016).

3.1 SYNOPTIC GROUNDWATER-LEVEL MEASUREMENTS

A round of synoptic groundwater-level measurements was conducted by a team of two field scientists for DRA and MT wells on July 3, 2018. Static water levels were measured using an electronic, graduated, water-level meter. The static water level was determined by lowering the meter's probe into the well until an audible tone indicated that the air/water interface had been reached. The water level relative to the top of the well casing was recorded to the nearest 0.01 foot. Groundwater-level measurement sheets are in Appendix A.

3.2 GROUNDWATER SAMPLING

Groundwater samples were collected from 107 wells at the DRA and from 12 wells at the MT area in May–July 2018 as part of the annual monitoring program (Figure 3-1). The four deep wells (MW-27D, MW-29D, MW-30D, and MW-31D) installed in permeable zones below the surficial aquifer of concern were also sampled as part of this investigation. Table 3-1 summarizes the groundwater sampling program. The following sections describe procedures for well purging and groundwater sampling, and describe the chemical analyses performed on the samples collected.

Well purging—Monitoring wells were purged using United States Environmental Protection Agency (USEPA) low-flow purging techniques before sample collection. Groundwater was purged using a peristaltic pump fitted with dedicated, disposable Teflon®-lined tubing, or by using a submersible pump positioned in the center of the well's saturated screen. The pumping rate

during purging ranged between 100–300 milliliters per minute (mL/min) and was frequently measured using a graduated cylinder. The purge rate was adjusted (but not allowed to fall below 100 mL/min) to minimize groundwater drawdown from the initial static water level.

During groundwater purging, water-level drawdown and groundwater parameters (including pH [a measure of acidity and alkalinity], temperature, specific conductance, dissolved oxygen [DO], oxidation-reduction potential [ORP], and turbidity) were measured and recorded every five to 10 minutes until purging was complete. Data were recorded in the appropriate site-specific logbook and on low-flow-purge data sheets. Water-quality parameters were measured using an inline water-quality meter. Turbidity readings were collected using a separate turbidity meter.

Purging was deemed complete when the monitored water-quality parameters stabilized, when three saturated well-casing volumes had been removed, or when the well had been purged dry, and stabilization was achieved when three consecutive readings (taken at five-minute intervals) were within ±0.1 standard units for pH, ±3% for specific conductance and temperature, ±10% for DO and ORP, and less than 10 nephelometric turbidity units (NTUs) for turbidity. If the monitoring well was purged dry, the water level in the well was allowed to recover a minimum of 80% of its initial static water level before groundwater was sampled. Well-purging and sample-record sheets are in Appendix B. All purged water was collected in clean, previously unused, United States Department of Transportation (USDOT)-approved 55-gallon steel drums, which were properly labeled and staged at a location approved by the Maryland Air National Guard (MDANG) and Lockheed Martin Corporation (Lockheed Martin).

Sample collection—Monitoring wells were sampled after purging using the same dedicated tubing or submersible pump that had been used during purging. Groundwater samples were collected using low-flow sampling protocols at the same pumping rate that had been used during well purging. Groundwater was pumped directly into the appropriate sample containers (for all VOC samples), or into a certified-clean disposable container supplied by the laboratory that was then used to pour the collected water directly into the appropriate sample containers.

3.3 LABORATORY ANALYSES

Groundwater samples were collected and analyzed by an off-site laboratory using the following methods (see Table 3-1 for details):

- analysis for VOCs plus tentatively identified compounds (TICs), Freon 22 (dichlorodifluoromethane), and Freon 113 (1,1,2-trichlorotrifluoroethane) by USEPA Method 8260C—(107 DRA monitoring wells and 12 MT-area wells)
- 1,4-dioxane by USEPA Method 8270C SIM— (107 DRA wells and 12 MT-area wells)
- perchlorate by USEPA SW846 Method 6850— (45 DRA wells)
- mercury by USEPA SW846 Method 7470A— (107 DRA wells and 12 MT-area wells)
- hexavalent chromium by USEPA Method 218.6— (39 DRA wells)
- total and dissolved priority pollutant metals by USEPA Method 6020B— (107 DRA wells and 12 MT-area wells)
- radium-224, 226, and 228 by USEPA 900-series methods— (10 DRA wells in the upper, intermediate, and lower surficial-aquifers)
- gasoline-range organics (GRO) and diesel-range organics (DRO) by SW846 Method 8015B— (45 DRA wells and 12 MT-area shallow monitoring wells screened in the upper surficial-aquifer)
- haloacetic acids (HAAs) by USEPA Method 552.1–552.4— (three DRA monitoring wells within the chlorinated solvent plume in the upper surficial aquifer)
- nine monitoring wells were analyzed for natural-attenuation assessment (NAA) parameters (nitrate, nitrite, ammonia nitrogen, phosphate, sulfate, total alkalinity, dissolved organic carbon, total iron, total manganese, total potassium, total calcium, total magnesium, total chloride, total sodium, total silica, and total dissolved solids [TDS]) using USEPA SW846 protocols. Methane, ethane, and ethene were analyzed using Microseeps® AM 20GAX protocols.

Wells selected for sampling and chemical analyses were based on current data needs for the remedial design, past sampling results, and optimization of data collection and cost. Wells that did not affect the site evaluation (i.e., wells with VOC concentrations consistently below Maryland Department of the Environment [MDE] groundwater standards or other screening values) were not sampled for VOCs during this round.

Perchlorate and radium-224, 226, and 228 were sampled at strategic locations to determine site concentrations of these "emerging contaminants"[2] in groundwater. Radium samples were collected from 10 groundwater-monitoring wells within the lateral boundaries of the DRA. Samples for TPH-GRO and TPH-DRO analyses were only collected from wells in the upper surficial-aquifer, because petroleum-related constituents are lighter than water and are typically found at or near the water table.

Hexavalent chromium was analyzed using USEPA Method 218.6 (ion chromatography), with a specified detection limit of 0.02 µg/L, a value lower than the method's published detection limit (0.10 µg/L). Perchlorate was analyzed for by USEPA Method 6850, with a specified detection limit of 1 µg/L.

One trip blank per cooler (of VOC samples) per day was collected for quality assurance/quality control (QA/QC) purposes. Matrix-spike and matrix-spike-duplicate samples were collected on a 1:20 basis. Chemical results for this sampling event are discussed in Section 4. A table listing chemical results for all samples is in Appendix C.

3.4 DOCUMENTATION

A master site logbook was maintained by the field sampling team as an overall record of field activities. Sample documentation consisted of completed chain-of-custody reports and matrix-specific sample-log sheets. The chain-of-custody report is an individual laboratory-supplied standardized form summarizing and documenting pertinent sample information, such as sample identification and type, matrix, date and time of collection, preservation, and requested analyses. Sample custody procedures document sample acquisition and integrity. Chain-of-custody reports are with the data-validation reports in Appendix D.

[2]*Emerging contaminants are chemicals not commonly monitored by regulatory agencies, but which have recently been identified by USEPA and MDE as contaminants that pose possible environmental or public health risk if present in drinking water supplies or groundwater. Adequate data are not available to fully determine the risk of these contaminants.*

3.5 EQUIPMENT DECONTAMINATION

Reusable equipment (e.g., water-level meter) was decontaminated before and after each use. Small, reusable equipment was decontaminated as follows:

- Liquinox® and potable-water wash
- potable-water rinse
- distilled-water rinse
- air drying
- collecting decontamination solutions for disposal

Decontamination rinsate was transferred to properly labeled 55-gallon drums staged at a facility-approved location. Dedicated and/or disposable equipment used for groundwater purging and sampling did not require decontamination.

3.6 WASTE MANAGEMENT

Investigation-derived waste (IDW) consisting of decontamination-rinsate water, monitoring well purge water, disposable sampling equipment, and personal protective equipment (PPE) was generated during groundwater sampling. PPE was brushed off, placed in trash bags, and disposed of in a designated facility trash receptacle. Disposable equipment was also rinsed off and disposed of in a facility-approved trash receptacle. Well purge-water and decontamination fluids were collected and stored in USDOT-approved 55-gallon drums. All drums were properly labeled and logged on a drum inventory form. The drum contents were profiled and managed in accordance with Lockheed Martin corporate waste management procedures and the MSA waste management plan (Tetra Tech, 2018b). All IDW drums were characterized and removed from the site as nonhazardous waste.

3.7 GENERAL SAMPLING PROCEDURES, NOMENCLATURE, AND HANDLING

Each sample received a unique sample identification consisting of the site location, well number, and six-digit sampling date. For example, a groundwater sample collected on May 13, 2018 from monitoring well MSA-MW-06 was labeled MSA-MW-06-051318. Trip blanks were labeled with

a "TB" prefix, followed by the blank's six-digit submittal date (e.g., TB-071318). Field-related sample-handling considerations include selection of sample containers, preservatives, allowable holding times, and requested analyses.

Proper chain-of-custody procedures were followed throughout all phases of sample collection and handling. Empty sample containers were released under signature from the laboratory and accepted under signature by the sampler or other individual responsible for maintaining custody until the sample containers were transferred to the sampling team. Groundwater samples were collected in these containers, released under signature from the sampling team, and then accepted under signature by the laboratory. Transport containers returning to the laboratory were sealed with strapping tape and a tamper-resistant custody seal. The custody seal shows the signature of the individual releasing the transport container, along with the date and time.

3.8 DATA VALIDATION

Data validation involves having an independent (non-laboratory) party review data provided by the laboratory to ensure that specific criteria have been met. These criteria concern specifications that are not sample dependent; they specify performance requirements that should be fully under a laboratory's control. For data analyses of organic chemicals, specific validation areas include blanks, performance-evaluation standard materials, and instrument performance checks. For data analyses involving inorganic chemicals, specific validation areas include blanks, calibration standards, calibration verification standards, laboratory control standards, and interference check standards. The analytical laboratory supplies the chemical data as hard-copy reports and electronic databases.

Once the investigation was complete, chemical data were validated by Tetra Tech, Inc. (Tetra Tech) in accordance with established USEPA protocols to assess the reliability and accuracy of the data. This review was based on the USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, 2017a), the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, 2017b), and the specifics of the analytical method used. Data validation reports are in Appendix D (on compact disc).

Validation of these data concluded that they are acceptable for their intended uses (i.e., risk screening and risk assessment), except for data qualified as unreliable (UR flags). The data qualifiers (i.e., flags) applied to the chemical results during data validation are listed below:

J The analyte is considered present in the sample, but the value is estimated and may not meet highest accuracy or precision standards. In this program, samples were also qualified with "*J*" because quantitation was above the method detection limit but below the laboratory reporting-limit.

J+ The analyte is considered present in the sample, but the value is estimated and is biased high.

J– The analyte is considered present in the sample, but the value is estimated and is biased low.

NJ The analyte has been tentatively identified. This qualifier indicates presumptive evidence of a compound. Special methods may be required to confirm its presence or absence in future sampling efforts.

U Not detected; the analyte was not detected at the reported value.

UJ The analyte was not detected. However, the quantitation or detection limit may be inaccurate or imprecise.

UR The non-detect result is considered qualitatively or quantitatively unreliable. Results flagged with "UR" data qualifiers include 2-chloroethyl vinyl-ether (most DRA and all MT samples), tertiary-butyl alcohol (33 DRA samples), and hexavalent chromium (seven DRA samples).

Only one of these flags (i.e., *J*) appears on the chemical results tables in Section 4; all flags are noted in Appendices C and D.

SECTION 4
RESULTS

This section presents groundwater-elevation data and chemical analysis results for groundwater samples collected from the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport (MSA) in May-July 2018. These results are compared against current Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008) and other pertinent federal/state standards/criteria (if MDE has not established standards for an analyzed chemical).

At present, MDE has not established an advisory level or standard for 1,4-dioxane in drinking water or groundwater. Several states (e.g., California, Colorado, Connecticut, Florida, Maine, Massachusetts, Michigan, and North Carolina) have established drinking water standards or action levels for 1,4-dioxane. These values range from the Massachusetts Office of Research and Standards guideline of 0.3 micrograms per liter (µg/L) to Michigan's drinking water standard of 85 µg/L (Massachusetts Department of Environmental Protection, 2015, and United States Environmental Protection Agency [USEPA] 2006, respectively). USEPA has published a preliminary remedial goal of 6.1 µg/L for 1,4-dioxane in tap water (USEPA, 2006) and a risk-based regional screening-level of 0.46 µg/L for tap water (USEPA, 2017c). The current drinking water guideline used by the Massachusetts Office of Research and Standards (0.3 µg/L), the most conservative of these three screening values, is used as the comparison criterion to evaluate 1,4-dioxane groundwater concentrations in this report.

4.1 DUMP ROAD AREA

Groundwater samples were collected for chemical analyses from 107 DRA monitoring wells over a period of eight weeks (May 14–July 10, 2018). DRA groundwater levels were measured on July 3, 2018. The measurement of groundwater levels was postponed until July 2018, near the end of the sampling period, due to on-going activities and groundwater table fluctuation related to operation of the treatment system for the MSA groundwater interim remedial action (IRA), which started operation in November 2017.

Note that all groundwater well designations at the DRA contain the same "MSA" prefix; this prefix is left off in the following discussions to increase readability.

4.1.1 Groundwater-Level Data

Table 4-1 lists July 2018 groundwater-level measurements and computed groundwater elevations for sampled MSA wells. Figures 4-1 through 4-3 show groundwater-elevation contour maps for the upper, intermediate, and lower surficial-aquifer zones (respectively) at the DRA. Table 4-1 lists static groundwater levels recorded as groundwater depths measured from the top of the sampled well casings and includes their converted elevations based on the North American Vertical Datum of 1988 (NAVD88). For one month prior to groundwater-level measurements (June 7 to July 7, 2018), the groundwater IRA extraction and treatment system was inactive, allowing water levels in the area to equilibrate.

Groundwater elevations for the surficial aquifer range from 2.13 feet below NAVD88 at well MW-53S (in the south-central portion of the DRA) to 7.23 feet above NAVD88 at well MW-44S (adjacent to Pond 2). Accounting for well-casing stick-up for aboveground well-casing risers and well stick-down for flush-mounted well designs, groundwater depths in the surficial aquifer range from approximately 1–21 feet below grade. Shallow groundwater was encountered adjacent to Pond 2 (well MW-44S) and in the western part of the site near the airport runway (e.g., wells MW-24S and DMW-11S); deeper groundwater was found in the eastern portion of the site along the top of the fill embankment near Frog Mortar Creek (e.g., wells DMW-02S, DMW-04S, and DMW-05S).

As shown in Figures 4-1 through 4-3, groundwater in the upper, intermediate, and lower surficial-aquifers generally flows east–northeast from the runway and taxiway toward Frog Mortar Creek. Consistent with previous water-level measurements, the 2018 results show higher groundwater levels at DMW-03S, MW-53S, MW-43S, and MW-44S (Figure 4-1), indicating local groundwater mounding near Ponds 1 and 2. The shallow wells installed there are in a clay-rich material above more permeable sand (in which the surrounding wells are installed). Therefore, groundwater levels in these wells may reflect localized perched groundwater.

4.1.2 Groundwater-Chemical Data

Groundwater samples were collected from the DRA wells to evaluate and confirm the horizontal and vertical extent of groundwater contamination at the DRA, to assess the natural attenuation of VOCs in the subsurface, and to evaluate any changes in groundwater conditions in the groundwater treatment system flow field. Validated analytical results are in Appendices C and D. Validated groundwater-chemical data were used to generate a statistical summary table (Table 4-2) that lists only detected analytes.

Table 4-3 lists positive detections (or "hits") generated from these data. Gray shading in Table 4-3 indicates results that exceed comparison criteria (MDE groundwater standards or the Massachusetts advisory level for 1,4-dioxane). Table C-1 in Appendix C summarizes both detected and non-detected results but does not list screening criteria. Data-validation reports and chain-of-custody forms are on compact disc (CD) in Appendix D. Results of the groundwater-chemical analyses for the DRA are below.

4.1.2.1 Volatile Organic Compounds

Several volatile organic compounds (VOCs) were detected in groundwater (Table 4-2) during this sampling event. *cis*-1,2-Dichloroethene (*cis*-1,2-DCE), trichloroethene (TCE), and vinyl chloride (VC) are the most frequently detected constituents. These chlorinated VOCs (cVOCs) were detected in approximately 80%, 65%, and 69% of the samples collected, respectively (Table 4-2). The maximum detected concentrations of TCE (37,000 micrograms per liter [µg/L]), *cis*-1,2-DCE (27,000 µg/L), and VC (13,000 µg/L) are several orders of magnitude (i.e., powers of 10) greater than their groundwater standards (5 µg/L, 70 µg/L, and 2 µg/L, respectively).

Petroleum-related VOCs (e.g., benzene, toluene, ethylbenzene, and xylenes [BTEX]) were detected less frequently, ranging from 5% of samples for ethylbenzene to 30% of samples for benzene. The maximum BTEX concentrations are generally lower than concentrations of the three most frequently detected cVOCs; e.g., the maximum toluene concentration was 18,000 µg/L in MW-54S, while the maximum concentrations of *cis*-1,2-DCE and TCE in the same well were 27,000 µg/L and 37,000 µg/L (respectively).

VOCs exceeding groundwater standards in the upper, intermediate, and lower surficial-aquifer zones are shown in Figures 4-4, 4-5, and 4-6, respectively. The results for the current round are similar to those of previous groundwater sampling rounds. The lateral and vertical distributions of cVOCs in groundwater confirm that several source areas contribute to groundwater contamination at the site (Figures 4-4 through 4-6). These areas include the Taxiway Tango Median Area (TT Median Area), the Petroleum Hydrocarbon Area (PHA), Taxiway Tango Area East (TT Area East), former Pond 3, the Drum Area (DA), and the area east of Pond 1; see Figure 2-2 for the locations of these areas.

Taxiway Tango Median Area—The TT Median Area is in the western portion of the DRA near wells MW-54S/I and DMW-11S (Figures 4-4 through 4-6; Tables 4-2 and 4-3). Historically, DMW-11S has contained the highest concentrations of cVOCs in this area (up to 52,000 µg/L for TCE, and up to 53,000 µg/L for *cis*-1,2-DCE in 2004). Wells MW-54S/I were installed northeast of wells DMW-11S/I, in an area where elevated cVOC concentrations had been detected in the upper and intermediate surficial-aquifer zones during vertical aquifer-sampling (VAS) in 2013. Groundwater samples collected from MW-54S and MW-54I in 2018 have TCE concentrations (37,000 and 18,000 µg/L, respectively), more than 20 times greater than the TCE concentration at DMW-11S (780 µg/L). The 2018 TCE concentration in MW-54S is slightly less than the 2017 TCE concentration in this well (50,000 µg/L), which was the highest concentration in this area. In monitoring wells MW-54S and MW-54I, respectively, carbon tetrachloride (4,300 µg/L and 5,500 µg/L), chloroform (3,200 µg/L and 1,800 µg/L), toluene (18,000 µg/L and 1,700 µg/L), *cis*-1,2-DCE (27,000 µg/L and 4,000 µg/L), and VC (2,200 and 240*J* µg/L) were also detected at concentrations exceeding their respective MDE groundwater standards. Carbon tetrachloride, chloroform, toluene, *cis*-1,2-DCE, and VC have MDE groundwater standards of 5 µg/L, 80 µg/L, 1,000 µg/L, 70 µg/L, and 2 µg/L, respectively.

From 2004–2010, TCE concentrations at DMW-11S ranged from 29,000–52,000 µg/L, but they have declined sharply since 2011, to 780 µg/L in 2018. Historical data are not available for MW-54S/I, so it is unclear if TCE at DMW-11S migrated downgradient to MW-54S/I, or if MW-54S/I is simply an extension of the TCE-source area at the TT Median Area. An elevated TCE concentration was detected in a shallow soil sample (260,000 micrograms per kilogram at 6–8 feet below ground surface) when MW-54S/I was installed, suggesting that elevated

concentrations detected in this area are an extension of the TT Median Area source area (Tetra Tech, 2014d).

Petroleum Hydrocarbon Area—This area is in the central portion of the site (Figure 2-2) near well DMW-09 and Pond 1 (Figures 4-4 through 4-6). DMW-09S, with seven VOC exceedances, has the highest number of VOC exceedances among PHA wells (see Figures 4-4 through 4-6, and Table 4-3). *cis*-1,2-DCE (460 µg/L) and VC (3,700 µg/L) were six times and 1,850 times their respective criteria (70 µg/L and 2 µg/L). Higher concentrations of TCE (as compared to surrounding wells in the PHA) were detected in wells DMW-09I (590 µg/L) and DMW-09D (2,200*J* µg/L).

The benzene concentration at DMW-09S (170 µg/L [*J* qualified]) is the highest detected during this groundwater monitoring round (Table 4-2 and Figure 4-7). This concentration is 34 times higher than its groundwater standard (5 µg/L). Another well in this area with a benzene exceedance, MW-16S (6.6 µg/L), is hydraulically downgradient of DMW-09S (Figure 4-1). The groundwater sample from monitoring well DMW-09S also exhibited elevated concentrations of *o*-xylene (1,400 µg/L), *m*+*p*-xylenes (14,000 µg/L), total xylenes (15,000 µg/L), ethylbenzene (1,200 µg/L), and 1,2,4-trimethylbenzene (170*J* µg/L), although of these compounds only total xylenes and ethylbenzene concentrations exceeded their respective groundwater standards (10,000 µg/L and 700 µg/L); these five VOC concentrations were greater than those detected at all other DRA wells during this sampling event.

TT Area East—This area is in the central portion of the DRA, encompassing wells MW-45S, MW-41S/I, and DMW-01A/B. Historical aerial photographs indicate that an open burning area and a pond/pit formerly occupied this area. Well MW-45S appears to be installed in the TCE source-area at TT Area East. Benzene, TCE, VC, and *cis*-1,2-DCE concentrations exceed their MDE groundwater standards in each of the five wells in this area. The most notable concentrations are from MW-45S; its total cVOC concentration (69,000 µg/L) consisted of TCE (35,000 µg/L), *cis*-1,2-DCE (21,000 µg/L), and VC (13,000 µg/L).

Former Pond 3—This area is in the central portion of the DRA, south of Pond 1 (Figure 2-2), at wells MW-53S/I and DMW-08S/I/D. Wells MW-53S/I were installed in the former Pond 3 area, where elevated concentrations of cVOCs were detected in the upper and intermediate

surficial-aquifer zones during VAS in 2013. TCE concentrations at MW-53S (1.8 µg/L) and MW-53I (5,600 µg/L) in 2018 are similar to those collected in 2017 (2.0 µg/L and 4,300 µg/L, respectively); however, they are in the lower range of TCE concentrations (3,600–490,000 µg/L) previously detected during the 2013 VAS at similar depths.

Drum Area—This area is in the southern portion of the site between wells MW-02/MW-19, MW-05/DMW-07, and MW-40S/I. It extends downgradient and to the east at wells DMW-04, DMW-05, MW-50, and MW-51. The highest VOC concentrations in this area are in the upper surficial-aquifer near wells MW-19, DMW-07, MW-40S/I, and DMW-05; one or more of the three primary cVOCs (TCE, *cis*-1,2-DCE, and VC) exceed their respective groundwater standards in these wells (see Figures 4-4 through 4-6 and Table 4-3). The highest total cVOC concentrations (33,400 µg/L in 2007) in this area were generally detected at well DMW-07S. Concentrations of TCE (890 µg/L), *cis*-1,2-DCE (8,400 µg/L), and VC (2,100 µg/L) at DMW-07S in this round (2018) total 11,390 µg/L; all are exceedances of their respective MDE groundwater standards (5 µg/L, 70 µg/L, and 2 µg/L).

Area east of Pond 1—This area is in the northeastern portion of the site between Pond 1 and Frog Mortar Creek. The highest cVOC concentrations are generally near Frog Mortar Creek (Figures 4-4 through 4-6). In 2018, TCE concentrations at wells MW-52I (20,000 µg/L) and MW-52D (17,000 µg/L) were consistent with levels detected in these wells over several years (2014 through 2017). This area is east of a wetland and a former pond or pit observed in historical photographs and appears to be at the lowest drainage point behind the berm that was constructed when the former Limehouse Cove was filled.

TCE (510 µg/L), *cis*-1,2-DCE (320 µg/L), and VC (260 µg/L) in well MW-46I also exceed their respective MDE groundwater standards, with VC detected at concentrations 130 times its MDE groundwater standard (2 µg/L). cVOC concentrations in 2015 through 2017 were as much as 75 times their MDE groundwater standards. These current and historical concentrations at MW-46I suggest that high cVOC concentrations extend north of the area currently being monitored at the DRA. Additional wells with notable concentrations of cVOCs greater than screening levels were DMW-03S (with *cis*-1,2-DCE [830 µg/L] and VC [1,300 µg/L] concentrations 12 times and 650 times their standards, respectively); and DMW-03I (with *cis*-1,2-DCE [1,500 µg/L], TCE

[2,500 µg/L], and VC [520 µg/L] concentrations approximately 20 times, 500 times, and 260 times their standards, respectively).

Taxiway Tango Area North—TCE exceeds its groundwater standard (5 µg/L) at several intermediate wells north and west of Pond 2, with exceedances of 1,200 µg/L and 510 µg/L (respectively) detected at wells MW-16I and MW-17I (see Table 4-3 and Figure 4-5). These exceedances suggest that the groundwater-contaminant plume extends northwest of wells DMW-9S/I/D (Figures 4-4 and 4-5).

Shoreline wells—Wells MW-46S/I/D through MW-52S/I/D form a northwest–southeast trending line on the embankment along the Frog Mortar Creek shoreline. MW-46S, MW-48S, and MW-52S produced the only samples collected along the shoreline that did not contain a TCE concentration (all were non-detect) above its MDE groundwater standard (5 µg/L). TCE concentrations range from 12*J* µg/L (MW-51D) to 20,000 µg/L (MW-52I), with an average of approximately 3,335 µg/L, in the remaining 18 monitoring wells along the shoreline. Of the 21 shoreline monitoring wells, more than 65% (14 wells) produced TCE concentrations more than one order of magnitude (10 times) the MDE groundwater standard, with nearly 50% (ten wells) with TCE concentrations two orders of magnitude (or 100 times) higher than the MDE groundwater standard (5 µg/L). Intermediate and deep surficial-aquifer monitoring wells in the central region of the coastline (MW-52, MW-48, and MW-49) produced the highest shoreline TCE concentrations. In contrast, TCE concentrations north of the central area at MW-51S (4,300 µg/L) and in the central area at MW-49S (670 µg/L) are the highest detected TCE concentrations of the shoreline wells screened in the upper surficial-aquifer. These TCE concentrations are similar to those detected in shoreline wells in 2016. Note that over the last five annual monitoring events (2013–2018), TCE concentrations in some shallow-aquifer wells along the shoreline have fluctuated (e.g., at MW-51S, TCE was detected at 13,000 µg/L in 2013, 730 µg/L in 2014, 250 µg/L in 2015, 160 µg/L in 2016, 5,500 µg/L in 2017, and 4,300 µg/L in 2018). The concentrations of TCE daughter products *cis*-1,2-DCE and VC trending over time appear proportional to those of TCE.

Deep confined-aquifer wells—VOCs were not detected in the four wells (MW-27D, MW-29D, MW-30D, and MW-31D) screened in the deep confined aquifer.

Natural-attenuation assessment parameters and haloacetic acids—Nine groundwater samples in the current (2018) round were analyzed for natural-attenuation assessment (NAA) parameters, and three samples were analyzed for haloacetic acids (HAA). Groundwater samples for NAA parameters were collected from four wells in the upper surficial-aquifer zone (DMW-09S, DMW-11S, MW-18S, and MW-48S), from three wells in the intermediate surficial-aquifer zone (DMW-09I, MW-18I, and MW-48I), and from two wells in the lower surficial-aquifer zone (DMW-09D and MW-48D). These wells are in presumed VOC source-areas. Wells DMW-02S, DMW-03S, and DMW-05S were analyzed for HAA; all three wells are screened in a portion of the upper surficial-aquifer impacted by chlorinated solvents. Locations of these wells are shown in Figures 4-4 through 4-6.

HAAs, common byproducts of water treatment by chlorination or ozonation, include bromoacetic acid, chloroacetic acid, dibromoacetic acid, dichloroacetic acid, and trichloroacetic acid. HAAs were not detected in the three samples analyzed, except for a detection of dichloroacetic acid 2*J* µg/L in DMW-02S (see Appendix C1). NAA parameters include alkalinity, chloride, dissolved organic carbon, nitrate, nitrite, orthophosphate, sulfate, total dissolved solids, calcium, iron, magnesium, manganese, potassium, sodium, and analysis for dissolved gasses ethane, ethene, and methane. Some NAA parameters were measured in the field as well as at the laboratory. Field measurements of NAA parameters used for this evaluation (i.e., groundwater pH [a measure of acidity or alkalinity], oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) are recorded on the field forms in Appendix B.

NAA evaluates whether anaerobic reductive-dechlorination of cVOCs is occurring at the site. This information will be used during the evaluation of remedial alternatives to determine the extent of natural attenuation occurring, and the potential for continued attenuation to occur at the site, and whether site conditions can be stimulated to undergo anaerobic reductive-dechlorination by adding electron donors and/or by adjusting groundwater pH. Anaerobic reductive-dechlorination is evident at the site, as shown by multiple detections of *cis*-1,2-DCE, a breakdown product of TCE, and VC, a breakdown product of dichloroethene, in areas of elevated TCE groundwater concentrations.

cis-1,2-DCE also appears to be degrading readily in the upper and intermediate zones, as indicated by the relatively high concentrations of VC detected in wells DMW-09S/I, DMW-11S, and MW-48S/I/D, and the presence of VC in eight of nine wells sampled for NAA parameters. Furthermore, ethene concentrations greater than 10 µg/L at seven of nine wells, and elevated chloride concentrations at all nine wells, indicate that complete mineralization of VOC contaminants is likely occurring at these locations. Methane concentrations at these wells also indicate anaerobic conditions. BTEX at DMW-09S provides a carbon source that is expected to enhance biodegradation of cVOCs at the PHA and Pond 1 Area plumes.

Other NAA parameters indicate favorable conditions for reductive dechlorination in the upper and intermediate surficial-aquifer zones. Elevated methane concentrations (greater than 700 µg/L) detected at DMW-09S, DMW-11S, and MW-48I are slightly above the favorable assessment criterion. High methane concentrations at these locations indicate fermentation is occurring; thus, the potential for complete anaerobic dechlorination exists at these locations.

4.1.2.2 1,4-Dioxane

1,4-Dioxane was detected in 61% of groundwater samples collected in 2018 (Table 4-2 and Figure 4-8), at concentrations ranging from 0.92 (MW-51D) to 650 µg/L (MW-45S). The average of the detected 1,4-dioxane concentrations is 75.02 µg/L. 1,4-Dioxane concentrations exceeded the Massachusetts Office of Research and Standards drinking water guideline (0.3 µg/L) in all samples in which it was detected. The highest concentrations occur primarily in the upper and intermediate surficial-aquifer zones in wells east of Pond 1 (DMW-03S/DMW-03I [220 µg/L and 140 µg/L, respectively], and MW-52I/MW-52D [390 µg/L and 310 µg/L, respectively]). Elevated 1,4-dioxane concentrations are also present in two other areas at DRA. The first area includes the TT Area East (MW-45S, MW-41S, and MW-41I [650 µg/L, 210 µg/L, and 380 µg/L, respectively]) and area downgradient (DMW-02S, MW-53I, and MW-53S [220 µg/L, 240 µg/L, and 94 µg/L, respectively]). The second area of elevated 1,4-dioxane concentrations is in one sample from the TT median area (MW-54S [510 µg/L]).

An elevated concentration (230 µg/L) was also reported for MW-16S, north of the PHA. Substantially lower concentrations of 1,4-dioxane are reported for wells at the Drum Area plume (the highest concentration in the area was 54 µg/L [DMW-07S]). 1,4-Dioxane was not detected in

the deep confined-aquifer groundwater samples (i.e., MW-27D, MW-29D, MW-30D, and MW-31D).

In general, 1,4-dioxane levels in high cVOC-concentration areas have decreased from 2009 to 2018. The largest decrease occurred at well DMW-1A; the concentration (490 µg/L in 2009) decreased in 2010 (91 µg/L), remained steady in 2011 (93 µg/L), decreased again in 2012 (68 µg/L), increased slightly between 2013 and 2014 (170 µg/L to 180 µg/L, respectively), but then steadily decreased thereafter to 51 µg/L in 2015, 24 µg/L in 2016, but slightly increased to 36 µg/L in 2017. The 1,4-dioxane concentration at DMW-1A increased only slightly (to 71 µg/L) in 2018.

4.1.2.3 Metals

Tables 4-2 and 4-3 summarize descriptive statistics and detections, respectively, of total metals (unfiltered groundwater samples) and dissolved metals (filtered groundwater samples) in DRA monitoring wells. Metals concentrations that exceed MDE groundwater standards are listed in Table 4-3 and Figures 4-9 through 4-13. Concentrations of 13 total metals and 10 dissolved metals exceed groundwater standards in one or more groundwater samples collected in 2018.

As shown in Table 4-3, the maximum concentrations of cadmium, chromium, iron, manganese, nickel, and vanadium exceed standards by more than one order of magnitude in both the total and dissolved metals fractions. Maximum concentrations of arsenic in both the total and dissolved metals fractions (52 µg/L and 37 µg/L, respectively) are more than three times its standard of 10 µg/L. Additionally, maximum concentrations of total and dissolved selenium (68 µg/L and 66 µg/L, respectively) are slightly above its standard of 50 µg/L. Table 4-2 shows the maximum total (unfiltered) and dissolved (filtered) metals concentrations. Well MW-45S appears to be installed in the cadmium and chromium source-area in TT Area East. Total cadmium and chromium concentrations at MW-45S during this round (2,600 µg/L and 4,000*J*- µg/L, respectively) are several times higher than the respective cadmium and chromium concentrations in nearby wells DMW-01A (260 µg/L and 11 µg/L) and DMW-01B (86 µg/L and 2.3 µg/L).

Maximum concentrations of total and dissolved nickel and vanadium were detected in well MW-24S, south of Taxiway Tango and MW-45S. The maximum concentrations of total and

dissolved iron and selenium, and dissolved beryllium, were also detected in MW-24S. No exceedances of hexavalent chromium were detected in any of the 39 samples in which it was analyzed for. Only the common-earth metals iron and/or manganese exceed groundwater standards in samples collected from the deep confined-aquifer wells (i.e., in MW-27D and MW-31D).

4.1.2.4 Petroleum Hydrocarbons

Forty-five samples from the upper surficial-aquifer were submitted for total petroleum hydrocarbons (TPH)-diesel-range organics (DRO) and TPH-gasoline-range organics (GRO) analysis. As shown in Table 4-2, TPH-DRO were detected in 84% of the groundwater samples collected in 2018, at concentrations ranging from 200*J* to 5,100 µg/L, whereas TPH-GRO were detected in 53% of groundwater samples in 2018, at concentrations ranging from 52*J*–94,000 µg/L. TPH-DRO and TPH-GRO exceedances of the groundwater standard (47 µg/L for both) are in Figure 4-14. The average detected concentration of TPH-DRO is 1,054 µg/L; the highest concentration reported is for well MW-52S. The average detected concentration of TPH-GRO is 6,463 µg/L, with the highest concentration reported for 2018 at well MW-54S.

4.1.2.5 Perchlorate

Forty-five groundwater samples were analyzed for perchlorate (Table 4-2). Perchlorate was detected in 17 of 45 (38%) groundwater samples, at concentrations ranging from 0.1*J*–2.3 µg/L. None of the detected perchlorate concentrations in 2018 exceeded its MDE groundwater standard (2.6 µg/L).

4.1.2.6 Radium-228 and Total Alpha Radium

As shown in Table 4-2, radium-228 and total alpha radium were detected in six and five of 10 groundwater samples, respectively. Radium-228 concentrations range from 0.33–9.34 picocuries per liter (pCi/L). The average detected radium-228 concentration is 4.22 pCi/L, and the highest radium-228 concentration reported is at well DMW-06I, screened in the intermediate surficial-aquifer in the southeastern portion of the DRA. The radium-228 concentrations at DMW-06D (6.76 pCi/L), in the southeastern portion of the DRA, and DMW-03I (7.22 pCi/L), east of Pond 1, also exceed its groundwater standard (5 pCi/L). All concentrations of total alpha radium are less than the groundwater standard (5 pCi/L).

4.2 MAIN TERMINAL

Static groundwater-levels and groundwater samples for laboratory chemical analyses were collected from 12 MT-area monitoring wells. This section presents groundwater-elevation data collected on July 3, 2018, and the chemical results from groundwater samples collected on May 7-10, 2018. The MT-area groundwater samples were analyzed for VOCs, 1,4-dioxane, total and dissolved metals, TPH-DRO, and TPH-GRO.

4.2.1 Groundwater-Level Data

Groundwater-level measurements and computed elevations for upper surficial-aquifer wells MT-MW01S through MT-MW12S are in Table 4-1; these data are graphically depicted in Figure 4-15. Depth to groundwater ranged from level with the ground surface (in the low elevation area south of hangars H-1 to H-3 at well MT-MW03S) to approximately 11 feet below the ground surface (at the upslope ends of the hangar buildings at well MT-MW10S [hangar H-6; see Figure 2-1]). As shown in Figure 4-15, groundwater from the airport terminal area generally flows southwest toward Dark Head Cove.

4.2.2 Groundwater-Chemical Data

Validated groundwater-chemical data in the MT area were used to generate a statistical summary table (Table 4-4), and a positive detections (or "hits") table (Table 4-5). Gray shading in Table 4-5 indicates results that exceed MDE groundwater standards. Table C-2 in Appendix C summarizes both detected and non-detected results, and does not contain screening criteria. Data-validation reports and chain-of-custody forms are on CD in Appendix D. The following sections discuss groundwater results for the MT area. Concentrations of organic compounds and metals exceeding their groundwater standards are illustrated in Figures 4-16 and 4-17, respectively.

4.2.2.1 VOCs and SVOCs

Several VOCs were detected in groundwater at the MT area (Tables 4-4 and 4-5). However, MT-MW02S accounts for nearly all VOC detections; only trace concentrations (well below MDE groundwater standards) of three VOCs were detected in the other 11 wells. MT-MW02S is on the western side of hangar H-1, in an area where former underground storage tanks (USTs) stored fuel. The only VOCs exceeding MDE groundwater standards were benzene (17 µg/L) and naphthalene

(0.75 J µg/L) at well MT-MW02S. The only SVOC analyzed for in the MT area is 1,4-dioxane, and it was not detected in any sample. Therefore, 1,4-dioxane results do not appear in Tables 4-4 or 4-5, but are shown in Table C-2 in Appendix C.

4.2.2.2 Metals

Groundwater samples were analyzed for both total (i.e., unfiltered) and dissolved (i.e., filtered) metals. Sixteen total metals and dissolved metals were detected in MT groundwater samples. Five metals (beryllium, cadmium, iron, manganese, and nickel) were detected at concentrations exceeding MDE groundwater standards. Beryllium exceeded its MDE standard (4 µg/L) in six total metals samples (concentrations ranging from 4.7 µg/L to 110 µg/L) and in six dissolved samples from the same wells (concentrations ranging from 4.2 µg/L to 94 µg/L). Total and dissolved cadmium concentrations (6.2 µg/L and 5.8 µg/L, respectively) exceeded the MDE standard (5 µg/L) in only one well (MT-MW06S). Total iron exceeded its standard (300 µg/L) in nine samples at concentrations ranging from 360 µg/L to 110,000 µg/L, and dissolved iron exceedances (ranging from 320 µg/L to 110,000 µg/L) were detected in seven samples. Manganese exceeded its standard (50 µg/L) in 11 wells sampled, in both total and dissolved fractions, at concentrations ranging from 51 µg/L to 23,000 µg/L, and 56 µg/L to 21,000 µg/L, respectively. Nickel exceeded its standard (73 µg/L) in seven total and six dissolved samples, at concentrations ranging from 97 µg/L to 3,200 µg/L, and 380 µg/L to 2,700 µg/L, respectively.

Vanadium (4.9*J* µg/L) exceeded its MDE groundwater standard (3.7 µg/L) in one well sample (MT-MW01S) in the dissolved fraction only; vanadium in the total (unfiltered) sample did not exceed its standard. Other metals detected in MT groundwater samples, but at concentrations below MDE standards, consisted of arsenic, barium, chromium, copper, lead, selenium, silver, and thallium. Two detected metals have no MDE groundwater standards: cobalt (in all 12 samples) and molybdenum (in two total and dissolved samples).

4.2.2.3 Petroleum Hydrocarbons

TPH-GRO was detected in four of 12 MT wells at concentrations (50*J*–430 µg/L) exceeding its MDE groundwater standard (47 µg/L). All GRO results except the maximum detected concentration are *J*-qualified (i.e., estimated). The highest GRO exceedance was detected at MT-MW02S (430 µg/L), with the others occurring at MT-MW04S, MT-MW08S, and

MT-MW09S, at concentrations ranging from 50*J* to 56*J*. TPH-DRO concentrations exceeded the MDE groundwater standard (47 µg/L) in all five samples in which it was detected, at concentrations ranging from 230*J* µg/L (MT-MW08S) to 7,000 µg/L (MT-MW02S). TPH-DRO at similar concentrations was detected at MT-MW02S during previous sampling rounds (4,700 µg/L in 2013, 5,200 µg/L in 2014, 4,500 µg/L in 2015, 8,400 µg/L in 2016, and 7,800 in 2017).

SECTION 5
SUMMARY

The following summarizes the findings of the 2018 groundwater sampling and analysis program for the Dump Road Area (DRA) and Main Terminal (MT) area of Martin State Airport (MSA):

Dump Road Area—

- Groundwater in the upper, intermediate, and lower surficial-aquifer zones flows east and northeast to Frog Mortar Creek. The Groundwater Interim Remedial Action extraction and treatment system, which started operation in November 2017, has operated discontinuously and was inactive for the month preceding water-level measurements. When the system is operating, the groundwater flow field at all aquifer levels is directed towards the 16 extraction wells in the Dump Road Area.

- Concentrations of chlorinated volatile organic compounds (cVOCs) exceed Maryland Department of the Environment (MDE) groundwater standards throughout much of the Dump Road Area, and at multiple depths. The two highest trichloroethene (TCE) concentrations observed in the current sampling round are 37,000 micrograms per liter (µg/L) and 35,000 µg/L, reported for upper surficial-aquifer wells MW-54S (west of MW-45S in the Taxiway Tango median area) and MW-45S (east of Taxiway Tango), respectively. The trichloroethene concentration in the intermediate-aquifer zone in the same well, MW-54I (18,000 µg/L), is less (approximately one-half the concentration) than the upper-surficial aquifer concentration. Multiple volatile organic compound (VOC) sources at the site have resulted in volatile organic compound plumes in groundwater that extend to areas north of Pond 2, south to wells DMW-06I and DMW-07I, and west to the area between Taxiway Tango and the airport runway. Concentrations of chlorinated volatile organic compounds in groundwater are consistent with the May-June 2017 results, with some exceptions.

- Samples from nine groundwater wells were analyzed for natural-attenuation assessment (NAA) parameters and their impacts. Anaerobic reductive-dechlorination is indicated by the presence of the trichloroethene-breakdown product cis-1,2-dichloroethene. Vinyl chloride (VC), methane, ethene, and elevated chloride concentrations indicate that complete dechlorination is likely occurring in the upper, intermediate, and lower surficial-aquifer zones at the Dump Road Area. However, higher oxidation-reduction potential values and lower groundwater pH indicate that the conditions for reduction dechlorination may be less favorable in the lower surficial zone.

- Volatile organic compounds were detected in groundwater at concentrations greater than the Maryland Department of the Environment groundwater standards in delineated areas north, east, and west of the waste material in the central portion of the Dump Road Area.

- The semivolatile organic compound (SVOC) 1,4-dioxane was detected primarily in groundwater samples from the upper and intermediate surficial-aquifer zones. 1,4-Dioxane is co-located in areas that contain the highest concentrations of chlorinated volatile organic compounds (west of Taxiway Tango at MW-54S, east of Taxiway Tango at MW-45S and MW-41S/I, the area hydraulically downgradient of MW-45S, and near and east of Pond 1).

- Concentrations of 13 (total) metals exceed groundwater standards in one or more surficial-aquifer groundwater samples. Maximum detected concentrations of cadmium, chromium, iron, manganese, nickel, and vanadium exceed Maryland Department of the Environment groundwater standards by more than one order of magnitude.

- Well MW-45S appears to be installed in the cadmium and chromium source-area east of Taxiway Tango. During this round, total cadmium (2,600 µg/L) and chromium (4,000*J* µg/L) concentrations at MW-45S are several times higher than any other cadmium and chromium concentrations detected during the sampling event. Measured dissolved concentrations were similar, 2900 µg/L and 4800*J* µg/L, respectively.

- Concentrations of hexavalent chromium were detected in 10 of 39 samples; however, no concentrations exceed the Maryland Department of the Environment groundwater standard.

- Total petroleum hydrocarbons (TPH) diesel-range organics (DRO) and gasoline-range organics (GRO) were frequently detected in upper surficial-aquifer groundwater samples. Most concentrations exceed the Maryland Department of the Environment groundwater standard (47 µg/L).

- Perchlorate was detected in 17 of 45 groundwater samples. However, none of the detected concentrations (ranging from 0.1J µg/L to 2.3 µg/L) exceed the Maryland Department of the Environment groundwater standard of 2.6 µg/L.

- Radium-228 and total alpha radium were detected in five and four of 10 groundwater samples, respectively. Detected radium-228 concentrations range from 0.33 picocuries per liter (pCi/L) to 9.34 pCi/L, and detected total alpha radium concentrations range from 0.379 pCi/L to 3.66 pCi/L. Detected concentrations of radium-228 exceed the groundwater standard of 5 pCi/L in samples from three monitoring wells. Alpha radium concentrations were below the standard.

Main Terminal—

- Groundwater elevation data indicate that groundwater at the Main Terminal area flows southwest from the airport terminal area toward Dark Head Cove.

- Benzene and other petroleum-related volatile organic compounds (e.g., naphthalene, 1,2,3- and 1,2,4-trimethylbenzene, xylenes, etc.) were detected infrequently (in one or two samples), primarily in well MT-MW02S. This well is on the western side of hangar H-1, in an area where former underground storage tanks (USTs) were previously used to store fuel.

- Benzene and naphthalene are the only volatile organic compounds exceeding Maryland Department of the Environment groundwater standards. The benzene concentration in the groundwater sample collected at well MT-MW02S was 17 µg/L, which is slightly higher than the concentrations detected during the 2016 sampling (11 µg/L) and 2017 (14 µg/L). Naphthalene in the same well (MT-MW02S) at a concentration of 0.75J µg/L slightly exceeded its Maryland Department of the Environment groundwater standard (0.65 µg/L).

- Five metals (beryllium, cadmium, iron, manganese, and nickel) were detected at concentrations exceeding Maryland Department of the Environment groundwater standards.

- Gasoline-range organics were detected in, and concentrations exceed Maryland Department of the Environment groundwater standards (47 µg/L) in, four of 12 wells. Diesel-range organic concentrations exceed the groundwater standard (47 µg/L) in all samples in which it was detected (five of 12 wells). Diesel-range-organics exceedances of the groundwater standard were detected at two of 12 locations sampled in 2017.

SECTION 6
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FIGURES

Figure 1-1 Martin State Airport, Dump Road Area and Frog Mortar Creek Location Map

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Figure 2-2 Site Features and Areas of Concern—Dump Road Area

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Figure 4-3 Groundwater Elevation Contour Map, July 2018—Lower Surficial Aquifer—Dump Road Area

Figure 4-4 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2018—Upper Surficial Aquifer—Dump Road Area

Figure 4-5 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2018—Intermediate Surficial Aquifer, Dump Road Area

Figure 4-6 Concentrations of Trichloroethene, *cis*-1,2-Dichloroethene and Vinyl Chloride Exceeding Groundwater Standards, 2018—Lower Surficial and Deep Confined Aquifers, Dump Road Area

Figure 4-7 Concentrations of Benzene Exceeding the Groundwater Standard, 2018—Dump Road Area

Figure 4-8 Concentrations of 1,4-Dioxane Exceeding the Groundwater Screening Criterion, 2018—Dump Road Area

**Figure 4-9 Concentrations of Total Metals Exceeding Groundwater Standards, 2018—Upper Surficial Aquifer,
Dump Road Area**

**Figure 4-10 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2018—Upper Surficial Aquifer,
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**Figure 4-11 Concentrations of Total Metals Exceeding Groundwater Standards, 2018—Intermediate Surficial Aquifer,
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**Figure 4-12 Concentrations of Dissolved Metals Exceeding Groundwater Standards, 2018—Intermediate Surficial Aquifer,
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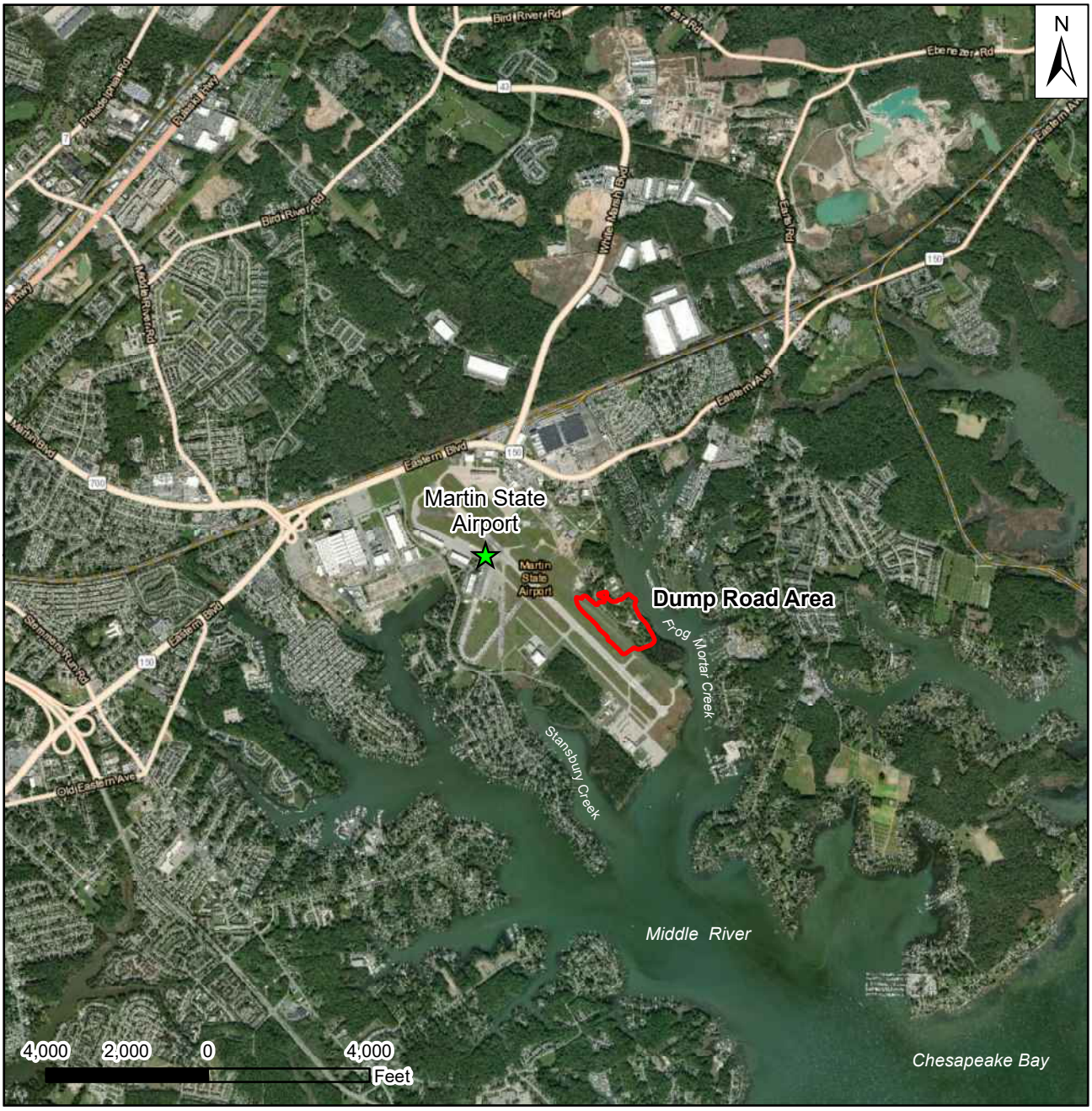
Figure 4-13 Concentrations of Total and Dissolved Metals Exceeding Groundwater Standards, 2018—Lower Surficial and Deep Confined Aquifers, Dump Road Area

Figure 4-14 Concentrations of Petroleum Hydrocarbons Exceeding Groundwater Standards, 2018—Upper Surficial Aquifer, Dump Road Area

Figure 4-15 Groundwater Elevation Contour Map, July 2018—Main Terminal Area

Figure 4-16 Concentrations of Organic Compounds Exceeding Groundwater Standards, 2018—Main Terminal Area

Figure 4-17 Concentrations of Total and Dissolved Metals Exceeding Groundwater Standards, 2018—Main Terminal Area



Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2017 ESRI and its data suppliers).

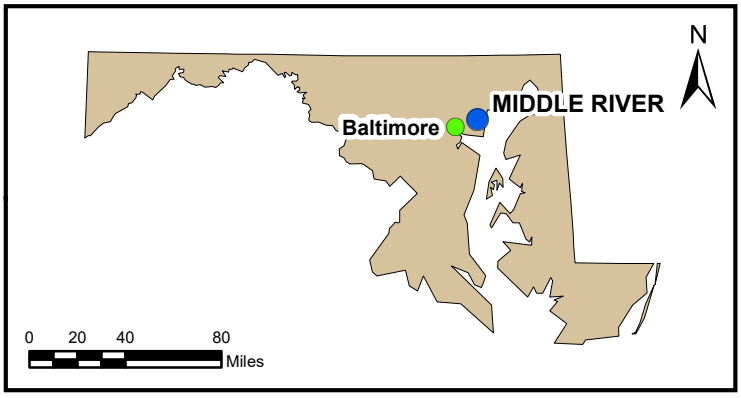


FIGURE 1-1
MARTIN STATE AIRPORT
DUMP ROAD AREA AND FROG MORTAR CREEK LOCATION MAP

Lockheed Martin, Martin State Airport
Middle River, Maryland

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09/10/18	JEE

TETRA TECH

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09/10/18 -- JEE



2017 aerial photograph provided by the State of Maryland.

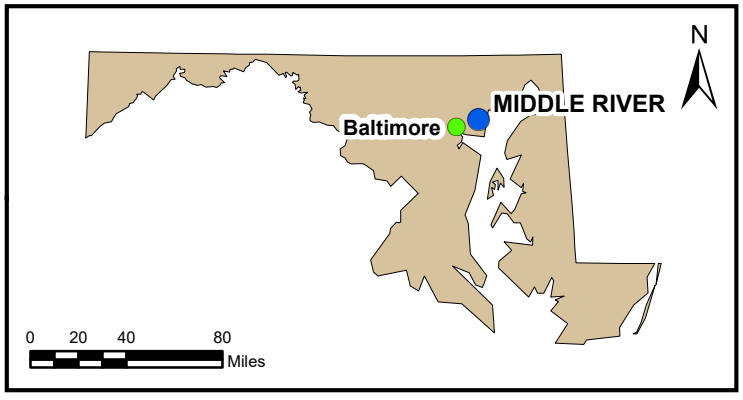

FIGURE 2-1

MARTIN STATE AIRPORT AND SURROUNDING FEATURES

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
09/12/18	JEE

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MARYLAND AIR NATIONAL GUARD

#26

TAXIWAY TANGO AREA NORTH

Gate

Gate

#20

POND 2

AREA EAST OF POND 1

PETROLEUM HYDROCARBON AREA

#42

Frog Mortar Creek

POND 1

FORMER POND 3 AREA

GROUNDWATER TREATMENT SYSTEM BUILDING

#2

#44

#15

TAXIWAY TANGO MEDIAN AREA

TAXIWAY TANGO AREA EAST

TAXIWAY J

AIRPORT RUNWAY

AREA OF FOUR EXCAVATED DRUMS

#45

DRUM AREA

#43

Gate

TAXIWAY TANGO

TAXIWAY D

TAXIWAY F

Numbered Former Features from 2013 Aerial Photograph Study	
#2	Pit
#15	Burn Area
#20	Bunker
#26	Bunker
#42	Pond/Pit
#43	Acid Pit
#44	Pit
#45	Burn Area

FIGURE 2-2

SITE FEATURES AND AREAS OF CONCERN
DUMP ROAD AREA

LEGEND

- MARYLAND AIR NATIONAL GUARD BOUNDARY
- FORMER AMMUNITION BUNKER
- FORMER OPEN BURNING AREA
- FORMER POND/PIT
- FORMER POND
- EXTENT OF UNSATURATED CONTAMINATED SOIL AND LANDFILL MATERIAL
- POND
- **#20** FORMER FEATURE NUMBER (FROM 2012 AERIAL PHOTOGRAPH STUDY)

2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/17/18

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Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_study_areas_features_sep2018.mxd)
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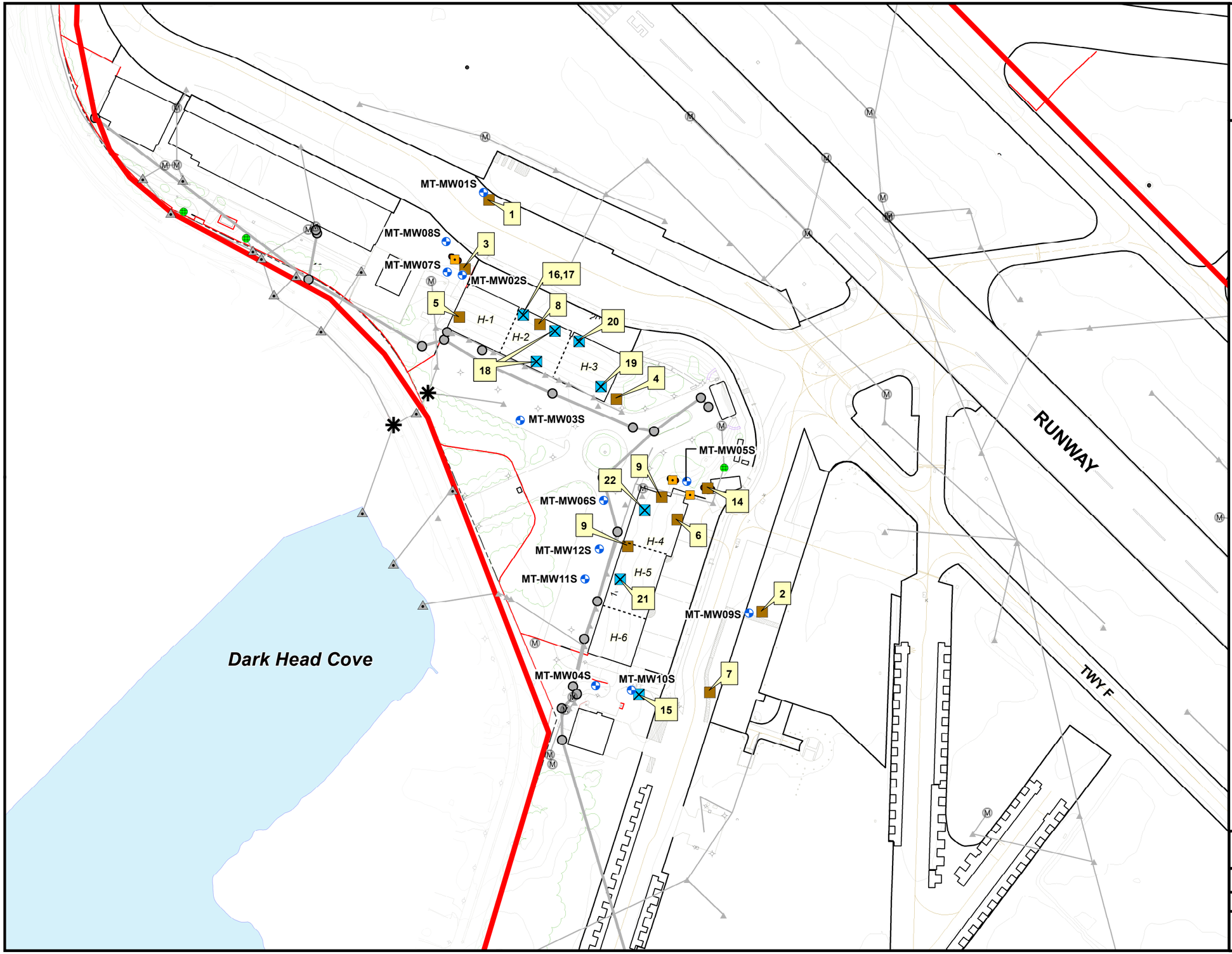

FIGURE 2-3

RECOGNIZED ENVIRONMENTAL CONDITIONS MAIN TERMINAL AREA

Legend

- REC Identified in Main Terminal Environmental Evaluation Report (Tetra Tech, 2010)
- Addendum REC
- TT Wells
- MTN Infiltration Trenches
- MSA Inlets
- MSA Manholes
- MSA Outfalls
- Sediment_Basin
- Subject Property Boundaries
- Current Structures
- Trench Drain
- Sanitary MH
- MTN_Tanks
- MTN_WellsPipes
- Sanitary Pipes
- Storm Pipes
- Electric Utilities
- H-1 Hangar No.

MSA – Martin State Airport
UST - Underground Storage Tank
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TT- Tetra Tech

REC # REC Name
REC 1 - Former Fueling Station "A" near Hangar 1
REC 2 - Former Fueling Station "B" near Hangar 6
REC 3 - Former Fueling/De-Fueling Pits and Fuel Oil USTs at Hangar 1
REC 4 - Hangar 3 Historical Gasoline USTs
REC 5 - Hangar 1 Former Propeller Cleaning Area
REC 6 - Hangar 4 Former Machine Gun Cleaning/Assembly Area
REC 7 - Missile Engine Test Area c. 1959 (estimated location)
REC 8 - Hangar 2 Heating Room/Boiler
REC 9 - Hangar 4 and 5 Heating/Boiler Rooms
REC 14 - Current MAA Self-Fueling Station and Former 1,000 - gal oil UST
REC 15 - Hangar 6 Former Fuel Oil USTs
REC 16 - Hangar 2 Oil Room
REC 17 - Hangar 2 Solvent Booth
REC 18 - Hangar 2 Radar/shielded Rooms
REC 19 - Hangar 3 Washing Area/Rotating Lift
REC 20 - Hangar 3 Compressor/Motor Room
REC 21 - Hangar 5 Painting/Stripping, and Acid Neutralization Areas
REC 22 - Hangar 4 Parachute Drying Area

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 130 260 Feet

N

DATE MODIFIED: 10/02/17

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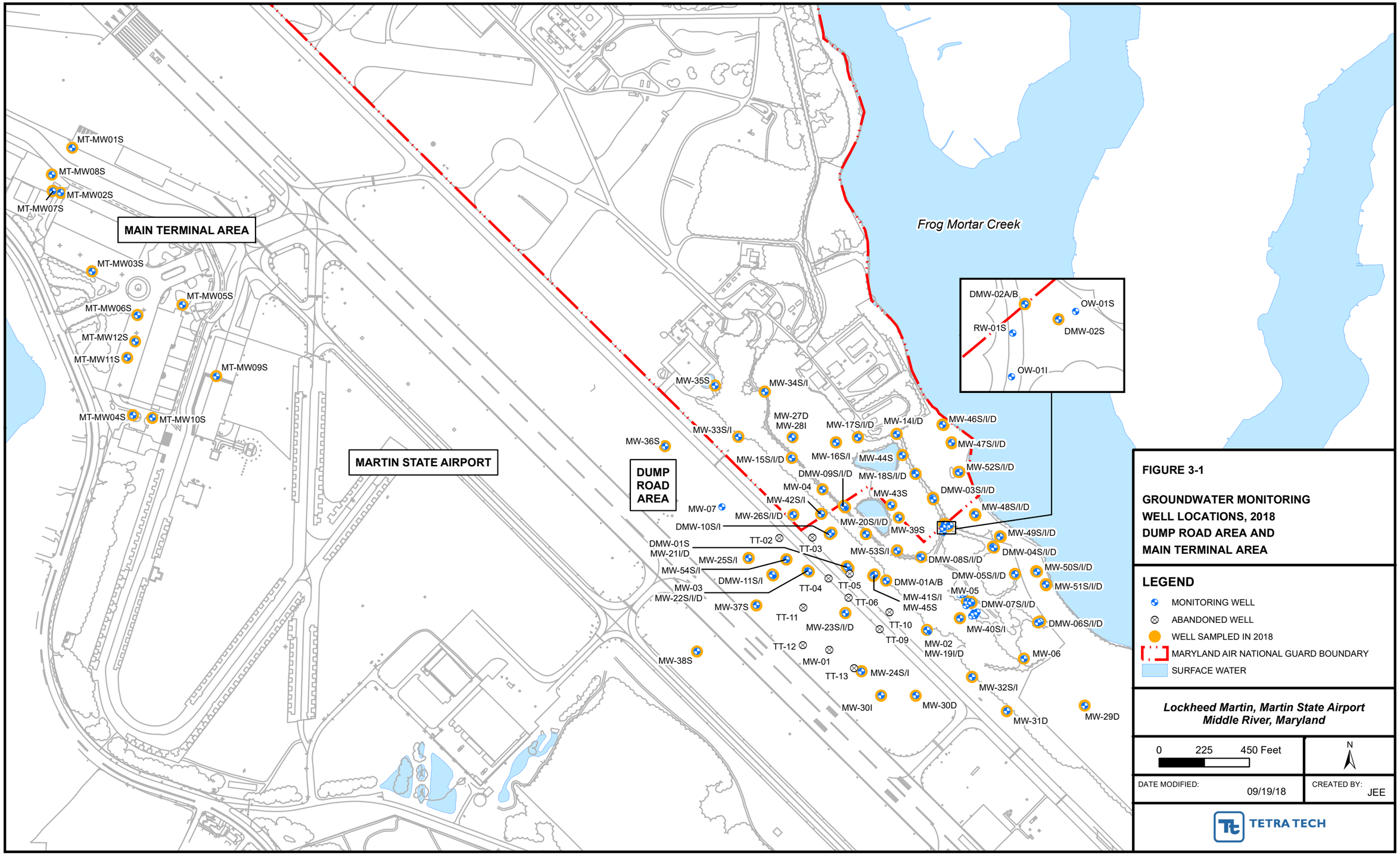

FIGURE 3-1

GROUNDWATER MONITORING WELL LOCATIONS, 2018 DUMP ROAD AREA AND MAIN TERMINAL AREA

LEGEND

- MONITORING WELL
- ABANDONED WELL
- WELL SAMPLED IN 2018
- MARYLAND AIR NATIONAL GUARD BOUNDARY
- SURFACE WATER

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 225 450 Feet

N

DATE MODIFIED: 09/19/18

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Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\msa_gw_sampling_2018.mxd)
09/19/18 -- JEE

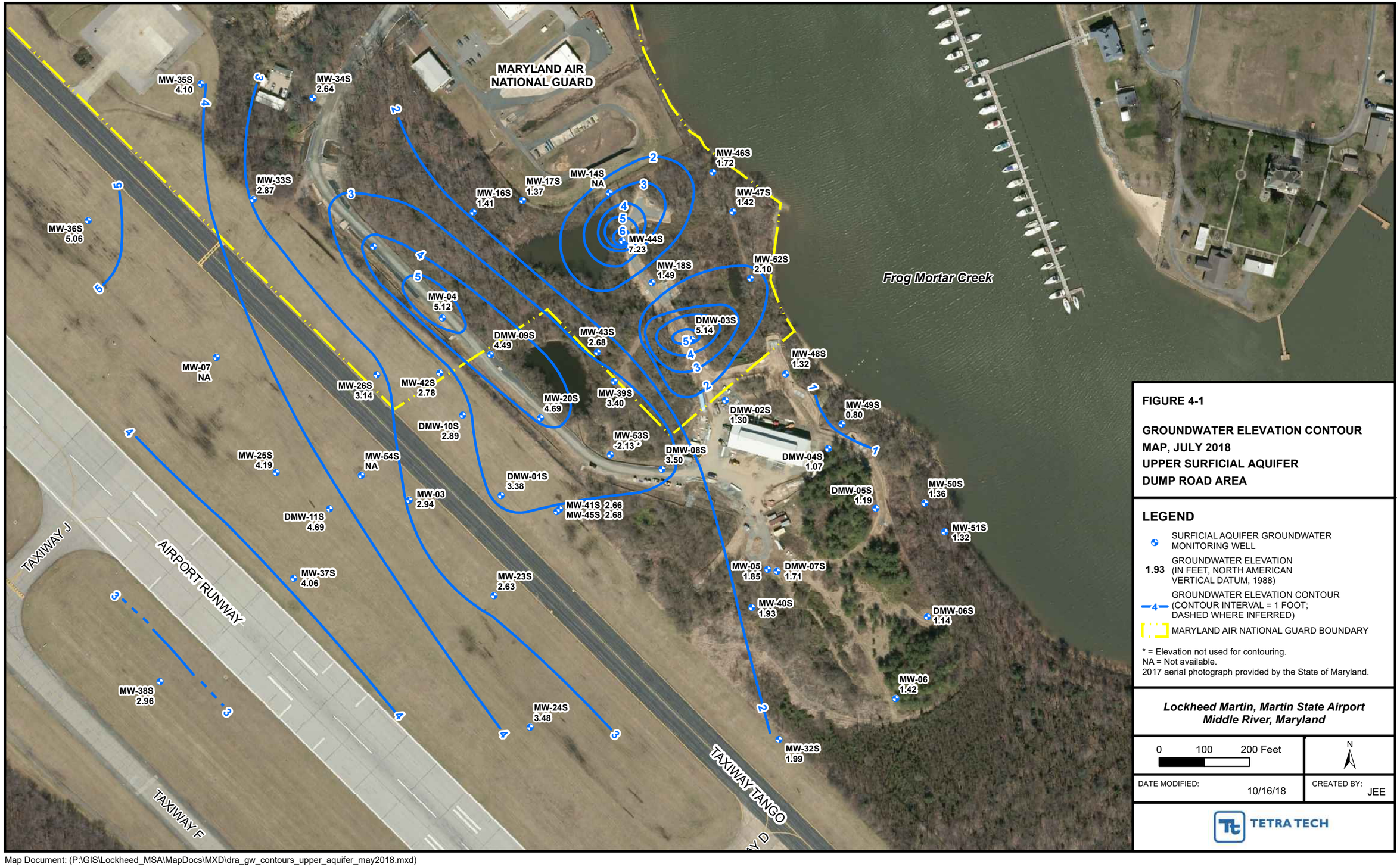

FIGURE 4-1

GROUNDWATER ELEVATION CONTOUR MAP, JULY 2018 UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 1.93 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 4 GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY

* = Elevation not used for contouring.
NA = Not available.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/16/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_upper_aquifer_may2018.mxd)
10/16/18 -- JEE



FIGURE 4-2

GROUNDWATER ELEVATION CONTOUR MAP, JULY 2018
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- **2.63** GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 4 GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY

NA = Not available.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/16/18

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TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_intermediate_aquifer_may2018.mxd)
10/16/18 -- JEE



FIGURE 4-3

GROUNDWATER ELEVATION CONTOUR MAP, JULY 2018
LOWER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- **2.83** GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 6 GROUNDWATER ELEVATION CONTOUR FOR DEEP SURFICIAL AQUIFER WELLS (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- 6 GROUNDWATER ELEVATION CONTOUR FOR DEEP CONFINED WELLS (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY

NA = Not available.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/16/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_contours_lower_aquifer_may2018.mxd)
10/16/18 -- JEE

MARYLAND AIR NATIONAL GUARD

Frog Mortar Creek

MW-35S
VINYL CHLORIDE 2.1 J

MW-34S

MW-33S
CIS-1,2-DICHLOROETHENE 360
TRICHLOROETHENE 380
VINYL CHLORIDE 64

MW-36S

MW-16S
VINYL CHLORIDE 61

MW-17S

MW-14S

MW-46S

MW-47S
TRICHLOROETHENE 110
VINYL CHLORIDE 46

MW-44S
VINYL CHLORIDE 2.3

MW-15S

MW-18S

MW-52S
VINYL CHLORIDE 49

DMW-09S
CIS-1,2-DICHLOROETHENE 460
VINYL CHLORIDE 3700

MW-04

DMW-03S
CIS-1,2-DICHLOROETHENE 830
VINYL CHLORIDE 1300

MW-42S
CIS-1,2-DICHLOROETHENE 600
VINYL CHLORIDE 270

MW-07

MW-43S

MW-49S
CIS-1,2-DICHLOROETHENE 170
TRICHLOROETHENE 670
VINYL CHLORIDE 37

MW-48S
VINYL CHLORIDE 120

MW-39S

MW-26S

MW-20S
VINYL CHLORIDE 2.7

MW-54S
CIS-1,2-DICHLOROETHENE 27000
TRICHLOROETHENE 37000
VINYL CHLORIDE 2200

DMW-10S

DMW-02S
CIS-1,2-DICHLOROETHENE 2800
TRICHLOROETHENE 1000
VINYL CHLORIDE 290

DMW-05S
CIS-1,2-DICHLOROETHENE 6100
TRICHLOROETHENE 19000
VINYL CHLORIDE 350 J

MW-53S
VINYL CHLORIDE 8.7

MW-25S
VINYL CHLORIDE 17

MW-54S

DMW-08S

MW-50S
CIS-1,2-DICHLOROETHENE 80
TRICHLOROETHENE 160
VINYL CHLORIDE 18

DMW-04S
CIS-1,2-DICHLOROETHENE 190
TRICHLOROETHENE 770
VINYL CHLORIDE 58

MW-03

DMW-01S

DMW-11S
CIS-1,2-DICHLOROETHENE 4700
TRICHLOROETHENE 780
VINYL CHLORIDE 4700

MW-41S
CIS-1,2-DICHLOROETHENE 1100
TRICHLOROETHENE 2400
VINYL CHLORIDE 770

MW-51S
CIS-1,2-DICHLOROETHENE 3700
TRICHLOROETHENE 4300
VINYL CHLORIDE 100

TAXIWAY J

MW-37S

MW-05
CIS-1,2-DICHLOROETHENE 3400
VINYL CHLORIDE 590

DMW-07S
CIS-1,2-DICHLOROETHENE 8400
TRICHLOROETHENE 890
VINYL CHLORIDE 2100

MW-23S
VINYL CHLORIDE 5.4

AIRPORT RUNWAY

MW-45S
CIS-1,2-DICHLOROETHENE 21000
TRICHLOROETHENE 35000
VINYL CHLORIDE 13000

MW-02

MW-40S
CIS-1,2-DICHLOROETHENE 3300
VINYL CHLORIDE 56 J

DMW-06S

MW-38S

MW-01

MW-06

MW-24S

MW-32S

TAXIWAY TANGO

TAXIWAY F

FIGURE 4-4

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2018
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

SURFICIAL AQUIFER GROUNDWATER MONITORING WELL

MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value.
Samples collected May 14 - July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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MARYLAND AIR NATIONAL GUARD

Frog Mortar Creek

TAXIWAY TANGO

AIRPORT RUNWAY

TAXIWAY J

TAXIWAY F

TAXIWAY D

MW-34I
VINYL CHLORIDE 82

MW-17I
CIS-1,2-DICHLOROETHENE 990
TRICHLOROETHENE 510
VINYL CHLORIDE 32

MW-14I
CIS-1,2-DICHLOROETHENE 260
VINYL CHLORIDE 740

MW-46I
CIS-1,2-DICHLOROETHENE 320
TRICHLOROETHENE 510
VINYL CHLORIDE 260
MW-46D
TRICHLOROETHENE 38

MW-47I
CIS-1,2-DICHLOROETHENE 400
TRICHLOROETHENE 980
VINYL CHLORIDE 370
MW-47D
CIS-1,2-DICHLOROETHENE 110
TRICHLOROETHENE 1200
VINYL CHLORIDE 26 J

MW-33I

MW-28I

MW-15I

DMW-09I
CIS-1,2-DICHLOROETHENE 1300
TRICHLOROETHENE 590
VINYL CHLORIDE 500

MW-16I
CIS-1,2-DICHLOROETHENE 250
TRICHLOROETHENE 1200
VINYL CHLORIDE 18 J

MW-18I
TRICHLOROETHENE 7.4
VINYL CHLORIDE 2.1

MW-52I
CIS-1,2-DICHLOROETHENE 7400
TRICHLOROETHENE 20000
VINYL CHLORIDE 2700
MW-52D
CIS-1,2-DICHLOROETHENE 3900
TRICHLOROETHENE 17000
VINYL CHLORIDE 1900

MW-48I
CIS-1,2-DICHLOROETHENE 7200
TRICHLOROETHENE 1200
VINYL CHLORIDE 7700
MW-48D
CIS-1,2-DICHLOROETHENE 570
TRICHLOROETHENE 370
VINYL CHLORIDE 210

MW-42I
CIS-1,2-DICHLOROETHENE 820
TRICHLOROETHENE 7.9 J
VINYL CHLORIDE 340

DMW-03I
CIS-1,2-DICHLOROETHENE 1500
TRICHLOROETHENE 2500
VINYL CHLORIDE 520

DMW-10I
CIS-1,2-DICHLOROETHENE 110
TRICHLOROETHENE 170
VINYL CHLORIDE 24

MW-26I

DMW-02A
CIS-1,2-DICHLOROETHENE 1800
TRICHLOROETHENE 3700
VINYL CHLORIDE 660

MW-49I
CIS-1,2-DICHLOROETHENE 1300
TRICHLOROETHENE 3600
VINYL CHLORIDE 530
MW-49D
CIS-1,2-DICHLOROETHENE 2100
TRICHLOROETHENE 6400
VINYL CHLORIDE 280

MW-54I
CIS-1,2-DICHLOROETHENE 4000
TRICHLOROETHENE 18000
VINYL CHLORIDE 240 J

MW-20I

MW-53I
CIS-1,2-DICHLOROETHENE 16000
TRICHLOROETHENE 5600
VINYL CHLORIDE 5000

MW-25I

DMW-04I
CIS-1,2-DICHLOROETHENE 1100
TRICHLOROETHENE 2100
VINYL CHLORIDE 210

MW-50I
TRICHLOROETHENE 62
VINYL CHLORIDE 5.4
MW-50D
TRICHLOROETHENE 29
VINYL CHLORIDE 3.2

DMW-11I
CIS-1,2-DICHLOROETHENE 280
TRICHLOROETHENE 130
VINYL CHLORIDE 64

MW-22I

MW-21I
CIS-1,2-DICHLOROETHENE 370
TRICHLOROETHENE 110
VINYL CHLORIDE 100

DMW-08I
CIS-1,2-DICHLOROETHENE 180
TRICHLOROETHENE 180
VINYL CHLORIDE 65

DMW-05I
TRICHLOROETHENE 26
VINYL CHLORIDE 3.5

MW-51I
TRICHLOROETHENE 19
VINYL CHLORIDE 2.2
MW-51D
TRICHLOROETHENE 12 J

MW-23I

MW-41I
CIS-1,2-DICHLOROETHENE 950
TRICHLOROETHENE 280
VINYL CHLORIDE 1100

MW-19I

DMW-06I

MW-40I
CIS-1,2-DICHLOROETHENE 1200
TRICHLOROETHENE 120
VINYL CHLORIDE 39

DMW-07I
CIS-1,2-DICHLOROETHENE 190
TRICHLOROETHENE 77
VINYL CHLORIDE 40

MW-24I
TRICHLOROETHENE 290

DMW-01A
CIS-1,2-DICHLOROETHENE 2600
TRICHLOROETHENE 2200
VINYL CHLORIDE 1300

MW-32I

MW-30I
TRICHLOROETHENE 230

FIGURE 4-5

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2018
INTERMEDIATE SURFICIAL AQUIFER

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value.
Samples taken May 14 - July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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FIGURE 4-6

CONCENTRATIONS OF TRICHLOROETHENE, CIS-1,2-DICHLOROETHENE AND VINYL CHLORIDE EXCEEDING GROUNDWATER STANDARDS, 2018
LOWER SURFICIAL AND DEEP CONFINED AQUIFERS, DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated value.
Samples taken May 14 - July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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FIGURE 4-7

CONCENTRATIONS OF BENZENE EXCEEDING THE GROUNDWATER STANDARD, 2018
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 21 and July 2, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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TETRA TECH

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FIGURE 4-8

CONCENTRATIONS OF 1,4-DIOXANE EXCEEDING THE GROUNDWATER SCREENING CRITERION, 2018 DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

The U.S. Environmental Protection Agency Regional Screening Level for 1,4-dioxane (0.46 ug/L) was used as the criterion for exceedances shown.

J = estimated sample.
Samples taken between May 15 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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FIGURE 4-9

CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2018
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/09/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_may2018_metals_upper.mxd)
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FIGURE 4-10

CONCENTRATIONS OF DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2018
UPPER SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

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FIGURE 4-11

CONCENTRATIONS OF TOTAL METALS EXCEEDING GROUNDWATER STANDARDS, 2018
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/09/18

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TETRA TECH

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FIGURE 4-12

CONCENTRATIONS OF DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2018
INTERMEDIATE SURFICIAL AQUIFER
DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/09/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_may2018_dislv_metals_intermediate.mxd)
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FIGURE 4-13

CONCENTRATIONS OF TOTAL AND DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2018 LOWER SURFICIAL AND DEEP CONFINED AQUIFERS, DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- DEEP CONFINED AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/16/18

CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_may2018_all_metals_lower.mxd)
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FIGURE 4-14

CONCENTRATIONS OF PETROLEUM HYDROCARBONS EXCEEDING GROUNDWATER STANDARDS, 2018 UPPER SURFICIAL AQUIFER DUMP ROAD AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- MARYLAND AIR NATIONAL GUARD BOUNDARY

J = estimated sample.
TPH = Total petroleum hydrocarbons.
DRO = Diesel range organics.
GRO = Gasoline range organics.
Samples taken between May 14 and July 10, 2018.
All results in micrograms per liter (µg/L).
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 100 200 Feet

N

DATE MODIFIED: 10/16/18

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TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\dra_gw_exc_tags_may2018_tph_upper.mxd)
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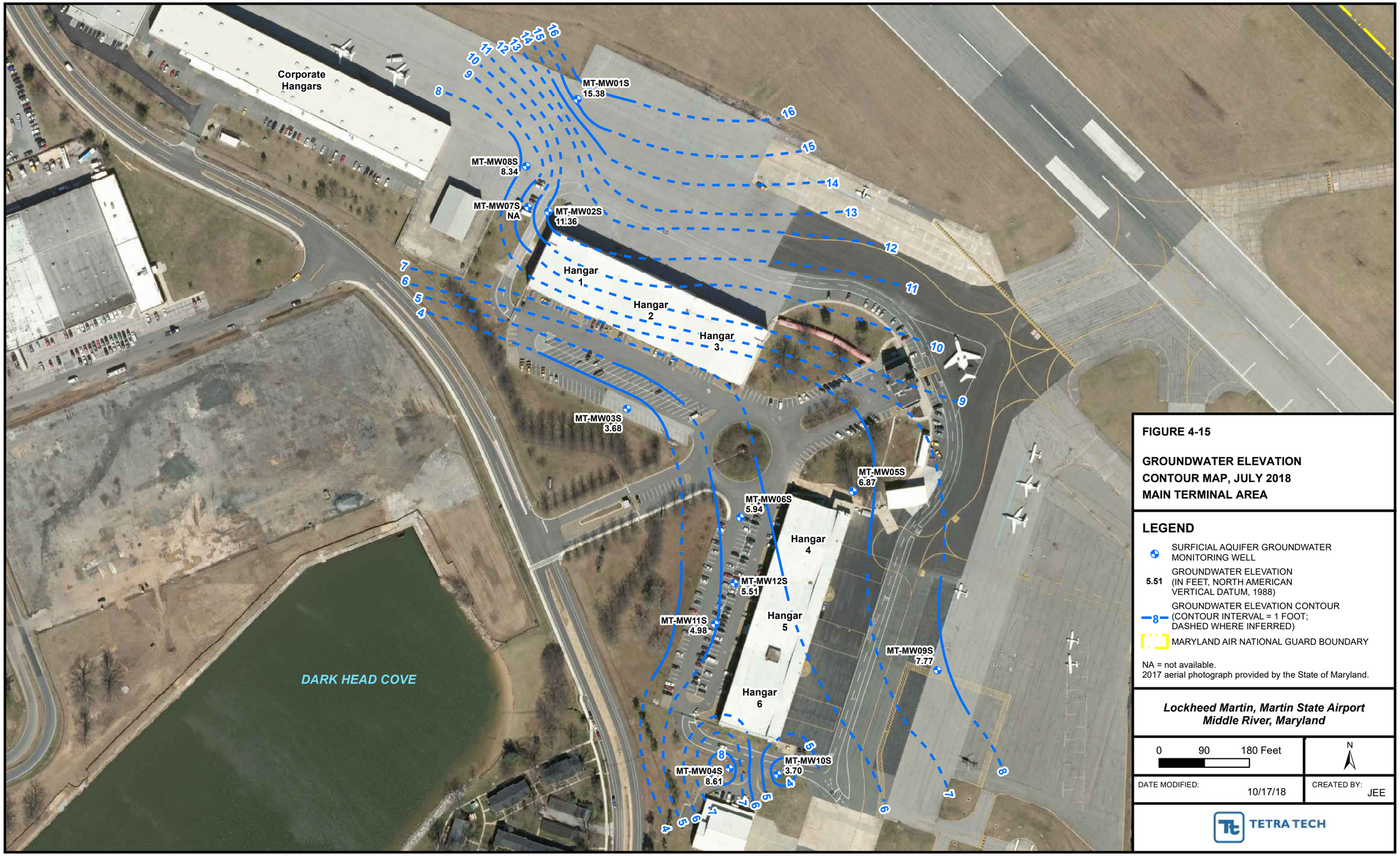

FIGURE 4-15

GROUNDWATER ELEVATION CONTOUR MAP, JULY 2018 MAIN TERMINAL AREA

LEGEND

- SURFICIAL AQUIFER GROUNDWATER MONITORING WELL
- 5.51 GROUNDWATER ELEVATION (IN FEET, NORTH AMERICAN VERTICAL DATUM, 1988)
- 8 GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL = 1 FOOT; DASHED WHERE INFERRED)
- MARYLAND AIR NATIONAL GUARD BOUNDARY

NA = not available.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

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CREATED BY: JEE

TETRA TECH

Map Document: (P:\GIS\Lockheed_MSA\MapDocs\MXD\mt_gw_contours_may2018.mxd)
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FIGURE 4-16

CONCENTRATIONS OF ORGANIC COMPOUNDS EXCEEDING GROUNDWATER STANDARDS, 2018
MAIN TERMINAL AREA

LEGEND

SURFICIAL AQUIFER GROUNDWATER MONITORING WELL

MARYLAND AIR NATIONAL GUARD BOUNDARY

Samples taken May 7-10, 2018.
J = Estimated value.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

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FIGURE 4-17

CONCENTRATIONS OF TOTAL AND DISSOLVED METALS EXCEEDING GROUNDWATER STANDARDS, 2018 MAIN TERMINAL AREA

LEGEND

SURFICIAL AQUIFER GROUNDWATER MONITORING WELL

MARYLAND AIR NATIONAL GUARD BOUNDARY

Samples taken May 7-10, 2018.
J = Estimated value.
2017 aerial photograph provided by the State of Maryland.

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 90 180 Feet

N

DATE MODIFIED: 09/21/18

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TABLES

Table 3-1 Groundwater Monitoring Wells and Chemical Analyses—2018

Table 4-1 Groundwater Levels and Elevations, July 3, 2018

Table 4-2 Statistical Summary of Groundwater Sampling Results—2018, Dump Road Area

Table 4-3 Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples—2018, Dump Road Area

Table 4-4 Statistical Summary of Groundwater Sampling Results—2018, Main Terminal Area

Table 4-5 Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples—2018, Main Terminal Area

Table 3-1

Groundwater Monitoring Wells and Chemical Analyses - 2018
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Analyses Perfomed										
	VOCs (TICs, Freon 22, Freon 113)	1,4-Dioxane	Perchlorate[1]	Hexavalent Chromium[2]	Total PPM	Dissolved PPM	Mercury (total and dissolved)	GRO and DRO	Radium 224, 226, and 228	Haloacetic Acids	Natural Attenuation Parameters[3]
	(USEPA 8260C)	(USEPA 8270C SIM)	(USEPA 6850)	(USEPA 218.6)	(USEPA 6020B)	(USEPA 6020B)	(USEPA 7470A)	(USEPA 8015B)	(USEPA 900 Series)	(USEPA 552.1 - 552.4)	(see below)[4]
	3x40mL vials w/ hydrochloric acid	2 liters Amber	125mL plastic (filtered)	250mL plastic	500mL w/ nitric acid	500mL filtered w/nitric acid	Included with total and dissolved metal analyses	2x40mL vials w/hydrochloric acid & 2 liters Amber	(Different labs) 2 liter plastic w/nitric acid	(Different lab) 2x250mL amber	(see below)[5,6]
Upper Surficial-Aquifer											
MW-3	X	X			X	X	X	X			
MW-4	X	X			X	X	X	X			
MW-5	X	X			X	X	X	X			
MW-6	X	X			X	X	X	X			
DMW-1S	X	X		X	X	X	X	X			
DMW-2S	X	X	X		X	X	X	X		X	
DMW-3S	X	X		X	X	X	X	X		X	
DMW-4S	X	X			X	X	X	X			
DMW-5S	X	X			X	X	X	X		X	
DMW-6S	X	X		X	X	X	X	X	X		
DMW-7S	X	X			X	X	X	X			
DMW-9S	X	X			X	X	X	X			X
DMW-10S	X	X			X	X	X	X			
DMW-11S	X	X			X	X	X	X			X
MW-16S	X	X			X	X	X	X	X		
MW-17S	X	X			X	X	X	X			
MW-18S	X	X			X	X	X	X			X
MW-20S	X	X			X	X	X	X			
MW-23S	X	X			X	X	X	X			
MW-24S	X	X			X	X	X	X			
MW-25S	X	X			X	X	X	X			
MW-26S	X	X			X	X	X	X			
MW-32S	X	X			X	X	X	X			
MW-33S	X	X			X	X	X	X			
MW-34S	X	X			X	X	X	X			
MW-35S	X	X			X	X	X	X			
MW-36S	X	X			X	X	X	X			
MW-37S	X	X			X	X	X	X			
MW-38S	X	X			X	X	X	X			
MW-39S	X	X			X	X	X	X			
MW-40S	X	X			X	X	X	X			
MW-41S	X	X			X	X	X	X			
MW-42S	X	X			X	X	X	X			
MW-43S	X	X			X	X	X	X			
MW-44S	X	X			X	X	X	X			
MW-45S	X	X			X	X	X	X			
MW-46S	X	X	X	X	X	X	X	X			
MW-47S	X	X	X	X	X	X	X	X			
MW-48S	X	X	X	X	X	X	X	X			X
MW-49S	X	X	X	X	X	X	X	X			
Upper Surficial-Aquifer (continued)											
MW-50S	X	X	X	X	X	X	X	X			
MW-51S	X	X	X	X	X	X	X	X			
MW-52S	X	X	X	X	X	X	X	X			
MW-53S	X	X	X	X	X	X	X	X			
MW-54S	X	X	X	X	X	X	X	X			
MT-MW-01S	X	X			X	X	X	X			
MT-MW-02S	X	X			X	X	X	X			
MT-MW-03S	X	X			X	X	X	X			
MT-MW-04S	X	X			X	X	X	X			
MT-MW-05S	X	X			X	X	X	X			
MT-MW-06S	X	X			X	X	X	X			
MT-MW-07S	X	X			X	X	X	X			

Table 3-1

Groundwater Monitoring Wells and Chemical Analyses - 2018
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Analyses Perfomed										
	VOCs (TICs, Freon 22, Freon 113)	1,4-Dioxane	Perchlorate[1]	Hexavalent Chromium[2]	Total PPM	Dissolved PPM	Mercury (total and dissolved)	GRO and DRO	Radium 224, 226, and 228	Haloacetic Acids	Natural Attenuation Parameters[3]
	(USEPA 8260C)	(USEPA 8270C SIM)	(USEPA 6850)	(USEPA 218.6)	(USEPA 6020B)	(USEPA 6020B)	(USEPA 7470A)	(USEPA 8015B)	(USEPA 900 Series)	(USEPA 552.1 - 552.4)	(see below)[4]
MT-MW-08S	X	X			X	X	X	X			
MT-MW-09S	X	X			X	X	X	X			
MT-MW-10S	X	X			X	X	X	X			
MT-MW-11S	X	X			X	X	X	X			
MT-MW-12S	X	X			X	X	X	X			
Intermediate Surficial-Aquifer											
DMW-1A	X	X		X	X	X	X				
DMW-2A	X	X	X		X	X	X				
DMW-3I	X	X			X	X	X		X		
DMW-4I	X	X	X		X	X	X				
DMW-5I	X	X	X		X	X	X				
DMW-6I	X	X			X	X	X		X		
DMW-7I	X	X	X		X	X	X				
DMW-8I	X	X		X	X	X	X				
DMW-9I	X	X			X	X	X				X
DMW-10I	X	X			X	X	X				
DMW-11I	X	X			X	X	X				
MW-14I	X	X			X	X	X				
MW-15I	X	X	X		X	X	X				
MW-16I	X	X			X	X	X		X		
MW-17I	X	X	X		X	X	X				
MW-18I	X	X	X		X	X	X				X
MW-20I	X	X	X		X	X	X				
MW-21I	X	X	X		X	X	X				
MW-24I	X	X	X		X	X	X				
MW-25I	X	X			X	X	X				
MW-30I	X	X			X	X	X				
MW-32I	X	X			X	X	X				
MW-33I	X	X		X	X	X	X				
MW-34I	X	X			X	X	X				
MW-40I	X	X			X	X	X				
MW-41I	X	X			X	X	X				
Intermediate Surficial-Aquifer (continued)											
MW-42I	X	X			X	X	X				
MW-46I	X	X	X	X	X	X	X				
MW-47I	X	X	X	X	X	X	X				
MW-48I	X	X	X	X	X	X	X				X
MW-49I	X	X	X	X	X	X	X				
MW-50I	X	X	X	X	X	X	X				
MW-51I	X	X	X	X	X	X	X				
MW-52I	X	X	X	X	X	X	X				
MW-53I	X	X	X	X	X	X	X				
MW-54I	X	X	X	X	X	X	X				
Lower Surficial-Aquifer											
DMW-1B	X	X			X	X	X				
DMW-2B	X	X			X	X	X				
DMW-3D	X	X			X	X	X		X		
DMW-4D	X	X	X		X	X	X				
DMW-6D	X	X	X		X	X	X		X		
DMW-7D	X	X			X	X	X				
DMW-9D	X	X			X	X	X				X
MW-14D	X	X		X	X	X	X				
MW-15D	X	X	X	X	X	X	X				
MW-16D	X	X	X	X	X	X	X		X		
MW-17D				X							
MW-19D	X	X			X	X	X				
MW-20D	X	X	X		X	X	X				
MW-21D	X	X			X	X	X				

Table 3-1

Groundwater Monitoring Wells and Chemical Analyses - 2018
Dump Road Area and Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Monitoring Well	Analyses Perfomed										
	VOCs (TICs, Freon 22, Freon 113)	1,4-Dioxane	Perchlorate[1]	Hexavalent Chromium[2]	Total PPM	Dissolved PPM	Mercury (total and dissolved)	GRO and DRO	Radium 224, 226, and 228	Haloacetic Acids	Natural Attenuation Parameters[3]
	(USEPA 8260C)	(USEPA 8270C SIM)	(USEPA 6850)	(USEPA 218.6)	(USEPA 6020B)	(USEPA 6020B)	(USEPA 7470A)	(USEPA 8015B)	(USEPA 900 Series)	(USEPA 552.1 - 552.4)	(see below)[4]
MW-22D	X	X			X	X	X				
MW-23D	X	X			X	X	X				
MW-46D	X	X	X	X	X	X	X				
MW-47D	X	X	X	X	X	X	X				
MW-48D	X	X	X	X	X	X	X				X
MW-49D	X	X	X	X	X	X	X				
MW-50D	X	X	X	X	X	X	X				
MW-51D	X	X	X	X	X	X	X				
MW-52D	X	X	X	X	X	X	X				
Deep Confined Aquifer											
MW-27D	X	X	X	X	X	X	X		X		
MW-29D	X	X	X	X	X	X	X		X		
MW-30D	X	X	X	X	X	X	X				
MW-31D	X	X	X	X	X	X	X				
	62	62	22		62	62	62	20			7

Notes:
1. Perchlorate was analyzed by USEPA Method 6850 with a specified detection limit of 1 µg/L.
2. Hexavalent chromium was analyzed by USEPA Method 218.6 (ion chromotography) with a specified detection limit of 0.02 ug/L which is lower than the method's published detection limit of 0.10 µg/L.
3. Natural attenuation parameters: nitrate, nitrite, ammonium nitrogen, phosphate, sulfate, total alkalinity, dissolved organic carbon, total iron total calcium, total manganese, total potassium, total magnesium, total chloride, total silica, total dissolved solids, methane, ethane and ethene. ***Ferrous iron*** was measured in the field at the same 9 wells at the time of sampling using a wet chemistry field kit.
4. Natural attenuation parameters were analyzed by USEPA Method SW846, and methane, ethane, and ethene were analyzed using Microseeps © AM 20GAX HACH or Chemetrics test kits for ferrous iron determination in the field.
5. Dissolved gases (2 x 40 mL with hydrochloric acid); ammonia (250mL plastic with sulfuric acid); dissolved organic carbon (2 x 40 mL vial with sulfuric acid); remaining parameters of alkalility, total dissolved solids, anions (1 liter plastic)
6. Methane, ethane and ethene (2 x 40 mL vials with hydrochloric acid)

Wells not Sampled:

RW1S	MW19I	DMW5D
OW1S	MW22I	DMW8D
MW2	MW23I	MW18D
DMW8S	MW26I	
MW15S	MW28I	

Abbreviations:

µg/L - micrograms per liter	PPM - priority pollutant metals
DRO - diesel-range organics	TICs - tentatively identified compounds
GRO - gasoline-range organics	USEPA - Unites States Environmental Protection Agency
mL - milliliter	VOCs - volatile organic compounds

Table 4-1

Groundwater Levels and Elevations - April 12-13, 2017
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of Well Casing NAVD88[(1)] Feet	Depth to Groundwater Top of Well Casing 7/3/2018 Feet	Groundwater Elevation NAVD88[(1)] 7/3/2018 Feet
Dump Road Area - Upper surficial aquifer				
DMW-01S	S	11.08	7.51	3.57
DMW-02S	S	21.75	20.45	1.30
DMW-03S	S	16.52	11.38	5.14
DMW-04S	S	20.52	19.45	1.07
DMW-05S	S	21.34	20.15	1.19
DMW-06S	S	18.62	17.48	1.14
DMW-07S	S	21.84	20.13	1.71
DMW-08S	S	15.80	12.30	3.50
DMW-09S	S	11.45	6.96	4.49
DMW-10S	S	10.29	7.40	2.89
DMW-11S	S	9.20	4.51	4.69
MW-15S	S	8.60	4.25	4.35
MW-16S	S	10.20	8.79	1.41
MW-17S	S	7.61	6.24	1.37
MW-18S	S	8.89	7.40	1.49
MW-20S	S	12.44	7.75	4.69
MW-23S	S	10.01	7.38	2.63
MW-24S	S	7.72	4.24	3.48
MW-25S	S	9.69	5.50	4.19
MW-26S	S	11.72	8.58	3.14
MW-32S	S	7.27	5.28	1.99
MW-33S	S	9.97	7.10	2.87
MW-34S	S	7.44	4.80	2.64
MW-35S	S	12.63	8.53	4.10
MW-36S	S	11.88	6.82	5.06
MW-37S	S	10.70	6.64	4.06
MW-38S	S	10.81	7.85	2.96
MW-39S	S	15.70	12.30	3.40
MW-40S	S	17.48	15.55	1.93
MW-41S	S	10.23	7.57	2.66
MW-42S	S	8.88	6.10	2.78
MW-43S	S	18.08	15.40	2.68
MW-44S	S	9.21	1.98	7.23
MW-45S	S	10.03	7.35	2.68
MW-46S	S	11.26	9.54	1.72
MW-47S	S	11.96	10.54	1.42
MW-48S	S	19.92	18.60	1.32
MW-49S	S	19.84	19.04	0.80
MW-50S	S	12.55	11.19	1.36
MW-51S	S	9.69	8.37	1.32
MW-52S	S	13.24	11.14	2.10
MW-53S	S	14.37	16.50	-2.13

Table 4-1

Groundwater Levels and Elevations - April 12-13, 2017
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of Well Casing NAVD88[(1)] Feet	Depth to Groundwater Top of Well Casing 7/3/2018 Feet	Groundwater Elevation NAVD88[(1)] 7/3/2018 Feet
Dump Road Area - Upper surficial aquifer (continued)				
MW-54S	S	10.75	NM	--
MW-03	S	11.19	8.25	2.94
MW-04	S	10.34	5.22	5.12
MW-05	S	22.65	20.80	1.85
MW-06	S	15.72	14.30	1.42
MW-07	S	10.90	NM	--
Dump Road Area - Intermediate surficial aquifer				
DMW-01A	I	12.05	9.41	2.64
DMW-02A	I	21.65	20.38	1.27
DMW-03I	I	16.45	14.94	1.51
DMW-04I	I	20.48	19.10	1.38
DMW-05I	I	21.39	20.14	1.25
DMW-06I	I	18.64	17.28	1.36
DMW-07I	I	21.90	20.35	1.55
DMW-08I	I	16.30	13.56	2.74
DMW-09I	I	11.40	7.10	4.30
DMW-10I	I	10.27	7.58	2.69
DMW-11I	I	9.15	6.25	2.90
MW-14I	I	11.72	10.41	1.31
MW-15I	I	8.79	4.44	4.35
MW-16I	I	10.06	7.64	2.42
MW-17I	I	7.68	5.48	2.20
MW-18I	I	8.91	--	--
MW-19I	I	7.90	6.18	1.72
MW-20I	I	12.39	7.92	4.47
MW-21I	I	10.83	8.28	2.55
MW-22I	I	11.01	8.15	2.86
MW-23I	I	10.07	7.42	2.65
MW-24I	I	7.68	5.02	2.66
MW-25I	I	9.72	6.90	2.82
MW-26I	I	11.67	8.91	2.76
MW-28I	I	8.65	6.29	2.36
MW-30I	I	7.52	5.14	2.38
MW-32I	I	7.28	5.48	1.80
MW-33I	I	10.02	7.18	2.84
MW-34I	I	7.37	4.70	2.67
MW-40I	I	17.59	15.89	1.70
MW-41I	I	10.23	7.60	2.63
MW-42I	I	8.87	6.18	2.69
MW-46D	I	11.67	10.14	1.53
MW-46I	I	11.19	9.75	1.44
MW-47D	I	12.04	10.70	1.34

Table 4-1

Groundwater Levels and Elevations - April 12-13, 2017
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of Well Casing NAVD88[1] Feet	Depth to Groundwater Top of Well Casing 7/3/2018 Feet	Groundwater Elevation NAVD88[1] 7/3/2018 Feet
Dump Road Area - Intermediate surficial aquifer (continued)				
MW-47I	I	11.94	10.56	1.38
MW-48D	I	20.12	18.55	1.57
MW-48I	I	19.94	18.40	1.54
MW-49D	I	19.60	18.33	1.27
MW-49I	I	19.59	18.59	1.00
MW-50D	I	13.12	11.82	1.30
MW-50I	I	12.64	11.24	1.40
MW-51D	I	9.55	8.36	1.19
MW-51I	I	9.61	8.23	1.38
MW-52I	I	13.27	11.83	1.44
MW-53I	I	14.39	11.76	2.63
MW-54I	I	10.83	NM	--
MW-01[2]	I	10.69	--	--
MW-02	I	8.40	6.32	2.08
Dump Road Area - Lower surficial aquifer				
DMW-01B	D	12.04	10.01	2.03
DMW-02B	D	21.66	20.10	1.56
DMW-03D	D	16.46	14.78	1.68
DMW-04D	D	20.44	19.21	1.23
DMW-05D	D	21.38	20.12	1.26
DMW-06D	D	18.51	17.45	1.06
DMW-07D	D	21.94	20.32	1.62
DMW-08D	D	16.35	13.52	2.83
DMW-09D	D	11.41	7.50	3.91
MW-14D	D1	11.56	6.70	4.86
MW-15D	D	8.77	4.32	4.45
MW-16D	D	10.22	7.96	2.26
MW-17D	D	7.56	3.35	4.21
MW-18D	D	8.88	7.48	1.40
MW-19D	D	7.94	6.83	1.11
MW-20D	D	12.40	8.42	3.98
MW-21D	D	10.78	8.50	2.28
MW-22D	D	11.02	8.50	2.52
MW-23D	D	10.03	7.85	2.18
MW-26D	D	11.66	8.99	2.67
MW-52D	D	13.04	11.60	1.44
Dump Road Area - Deep confined aquifer				
MW-27D	DD	8.39	2.08	6.31
MW-29D	DD	11.43	7.60	3.83
MW-30D	DD	8.26	3.82	4.44
MW-31D	DD	6.95	3.05	3.90

Table 4-1

Groundwater Levels and Elevations - April 12-13, 2017
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Aquifer Level	Elevation Top of Well Casing NAVD88[(1)] Feet	Depth to Groundwater Top of Well Casing 7/3/2018 Feet	Groundwater Elevation NAVD88[(1)] 7/3/2018 Feet
Main Terminal Area - Upper surficial aquifer				
MT-MW-01S	S	17.61	2.23	15.38
MT-MW-02S	S	17.76	6.40	11.36
MT-MW-03S	S	3.68	0.00	3.68
MT-MW-04S	S	12.59	3.98	8.61
MT-MW-05S	S	12.37	5.50	6.87
MT-MW-06S	S	6.79	0.85	5.94
MT-MW-07S	S	16.89	--	--
MT-MW-08S	S	18.19	9.85	8.34
MT-MW-09S	S	15.33	7.56	7.77
MT-MW-010S	S	15.1	11.40	3.70
MT-MW-011S	S	7.33	2.35	4.98
MT-MW-012S	S	7.55	2.04	5.51
Frog Mortar Creek - River gage				
MSA-Gage01 (EL Marina)	SW	2.83	NM	--

1 Based on an October 2010 survey of all Dump Road Area wells

2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use

"--" - Not available; NM - not measured

S - Upper surficial aquifer

I - Intermediate surficial aquifer

D - Lower surficial aquifer

D1 - Aquitard beneath lower surficial aquifer

DD - Deep confined aquifer below the lower surficial aquifer

NAVD88 = North American Vertical Datum of 1988.

Table 4-2

Statistical Summary of Groundwater Sampling Results - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Annual 2018 Dump Road Martin State Airport Ground Water Samples												
	Frequency of		Minimum Conc Detected	Maximum Conc Detected	Sample of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Conc ND	Maximum Conc ND	Std Dev	Sample Date	Matrix	Site
	Number	Percent											
Volatile Organics (ug/L)													
1,1,1-TRICHLOROETHANE	2/104	2	3.2 J	68 J	MSA-MW-49D-062818	35.600	10.403	0.23	300	27.356	20180628	GW	DRA
1,1-DICHLOROETHANE	5/104	5	0.36 J	26 J	MSA-MW-49I-062818	6.702	7.240	0.17	210	19.025	20180628	GW	DRA
1,1-DICHLOROETHENE	18/104	17	0.27 J	150 J	MSA-MW-49D-062818	24.449	11.450	0.19	240	28.396	20180628	GW	DRA
1,2,3-TRIMETHYLBENZENE	1/104	1	1.1 J	1.1 J	MSA-MW-52S-062618	1.100	5.833	0.14	180	15.753	20180626	GW	DRA
1,2,4-TRICHLOROBENZENE	9/104	9	0.38 J	990 J	MSA-MW-45S-052318	186.842	24.786	0.26	330	106.035	20180524	GW	DRA
1,2,4-TRIMETHYLBENZENE	1/104	1	54 J	54 J	MSA-MW-42S-052118	54.000	3.361	0.07	88	9.284	20180521	GW	DRA
1,2-DICHLOROBENZENE	4/104	4	0.15 J	1.6	DMW-10S-052418	0.868	6.255	0.15	190	16.794	20180524	GW	MSA
1,2-DICHLOROETHANE	34/104	33	0.32 J	480 J	MSA-MW-45S-052318	36.282	17.895	0.21	260	57.376	20180524	GW	DRA
1,3-DICHLOROBENZENE	2/104	2	0.45 J	5.7 J	MSA-MW-48D-062918	3.075	6.271	0.15	190	16.796	20180629	GW	DRA
1,3-DICHLOROPROPANE	1/104	1	0.56 J	0.56 J	DMW-10S-052418	0.560	8.731	0.21	260	23.444	20180524	GW	MSA
1,4-DICHLOROBENZENE	9/104	9	0.39 J	210 J	MSA-MW-45S-052318	35.137	8.626	0.16	200	26.262	20180524	GW	DRA
2,2-DICHLOROPROPANE	2/104	2	0.42 J	1.5 J	MSA-MW-35S-051418	0.960	12.866	0.31	390	34.682	20180514	GW	DRA
2-BUTANONE	5/104	5	1.5 J	140 J	DMW-3I-062118	43.920	50.315	1	1500	133.462	20180621	GW	MSA
ACETONE	3/104	3	8.9 J	4200	MSA-MW-51D-062718	1409.300	263.475	1.8	6800	719.052	20180627	GW	DRA
BENZENE	29/104	28	0.13 J	170 J	MSA-MW-45S-052318	11.173	7.521	0.13	160	20.964	20180524	GW	DRA
CARBON DISULFIDE	1/104	1	0.56 J	0.56 J	DMW-5I-071018	0.560	11.602	0.28	350	31.300	20180710	GW	MSA
CARBON TETRACHLORIDE	7/104	7	0.59 J	5500	MSA-MW-54I-052918	1415.113	103.139	0.26	260	680.496	20180529	GW	DRA
CHLOROBENZENE	25/104	24	0.14 J	310	MSA-MW-41I-052218	41.929	14.428	0.14	180	43.777	20180522	GW	DRA
CHLOROETHANE	1/104	1	1	1	MSA-MW-44S-061518	1.000	34.226	0.41	1000	91.828	20180615	GW	DRA
CHLOROFORM	13/104	13	0.29 J	3200	MSA-MW-54S-052918	401.678	53.533	0.13	130	358.099	20180529	GW	DRA
CIS-1,2-DICHLOROETHENE	83/104	80	0.16 J	27000	MSA-MW-54S-052918	1695.803	1353.408	0.16	1	3909.751	20180529	GW	DRA
DICHLORODIFLUOROMETHANE	1/104	1	0.57 J	0.57 J	DMW-10S-052418	0.570	14.578	0.35	440	39.238	20180524	GW	MSA
DIISOPROPYL ETHER	3/104	3	0.18 J	3 J	DMW-16S-070218	1.163	7.077	0.17	210	18.940	20180702	GW	DRA
ETHYL TERT-BUTYL ETHER	1/104	1	0.18 J	0.18 J	DMW-16S-070218	0.180	6.229	0.15	190	16.803	20180702	GW	DRA
ETHYLBENZENE	4/104	4	0.11 J	200	MSA-MW-42S-052118	52.078	6.443	0.11	140	22.783	20180521	GW	DRA
ISOPROPYLBENZENE	3/104	3	0.13 J	0.33 J	MSA-MW-52S-062618	0.237	3.719	0.09	110	9.974	20180626	GW	DRA
M+P-XYLENES	8/104	8	0.12 J	3900	MSA-MW-42S-052118	521.874	42.882	0.08	80	382.433	20180521	GW	DRA
N-PROPYLBENZENE	1/104	1	0.21 J	0.21 J	MSA-MW-44S-061518	0.210	6.234	0.15	190	16.801	20180615	GW	DRA
NAPHTHALENE	1/104	1	4.7	4.7	MSA-MW-44S-061518	4.700	13.289	0.25	400	35.710	20180615	GW	DRA
O-XYLENE	7/104	7	0.13 J	320	MSA-MW-42S-052118	50.884	7.002	0.09	110	32.615	20180521	GW	DRA
SEC-BUTYLBENZENE	2/104	2	0.16 J	0.86 J	DMW-10S-052418	0.510	5.376	0.13	160	14.434	20180524	GW	MSA
TERT-BUTYLBENZENE	3/104	3	0.14 J	0.77 J	DMW-10S-052418	0.400	5.834	0.14	180	15.752	20180524	GW	MSA
TERTIARY-BUTYL ALCOHOL	3/104	3	11 J	7100	MSA-MW-51D-062718	3070.333	160.975	1.7	2100	740.442	20180627	GW	DRA
TETRACHLOROETHENE	3/104	3	0.34 J	7.7 J	MSA-DMW-2A-061518	2.923	6.270	0.15	190	16.800	20180615	GW	MSA
TOLUENE	13/104	13	0.15 J	18000	MSA-MW-54S-052918	1613.028	204.670	0.14	140	1772.028	20180529	GW	DRA
TOTAL XYLENES	6/104	6	0.17 J	4200	MSA-MW-42S-052118	721.532	47.672	0.15	190	411.615	20180521	GW	DRA
TRANS-1,2-DICHLOROETHENE	29/104	28	0.19 J	240	DMW-3S-062118	21.507	12.864	0.19	240	32.778	20180621	GW	MSA
TRICHLOROETHENE	68/104	65	0.1 J	37000	MSA-MW-54S-052918	2843.378	1859.657	0.1	60	6042.104	20180529	GW	DRA
VINYL CHLORIDE	71/104	68	0.27 J	13000	MSA-MW-45S-052318	729.817	498.347	0.2	10	1644.844	20180524	GW	DRA

Table 4-2

Statistical Summary of Groundwater Sampling Results - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Annual 2018 Dump Road Martin State Airport Ground Water Samples												
	Frequency of		Minimum Conc Detected	Maximum Conc Detected	Sample of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Conc ND	Maximum Conc ND	Std Dev	Sample Date	Matrix	Site
	Number	Percent											
Volatile Gases (ug/L)													
ETHANE	4/6	67	8	260	MSA-MW-48I-062918	105.500	70.350	0.1	0.1	107.485	20180629	GW	DRA
ETHENE	4/6	67	59	1900	MSA-MW-48I-062918	702.250	468.185	0.11	0.11	749.773	20180629	GW	DRA
METHANE	6/6	100	87	2300	MSA-MW-48I-062918	707.833	707.833	NULL	NULL	862.044	20180629	GW	DRA
Volatile Acid (ug/L)													
DICHLOROACETIC ACID	1/3	33	2 J	2 J	DMW-5S-071018	2	0.993	0.98	0.98	0.872	20180710	GW	MSA
Semivolatile Organics (ug/L)													
1,4-DIOXANE	62/104	60	0.92	650	MSA-MW-45S-052318	76.276	45.544	0.24	0.39	108.505	20180524	GW	DRA
Inorganics (ug/L)													
ANTIMONY	20/104	19	0.59 J	51 J-	DMW-17I-070518	3.675	0.937	0.57	0.57	4.977	20180705	GW	DRA
ARSENIC	68/104	65	0.76 J	52	DMW-17I-070518	6.938	4.666	0.75	0.75	7.914	20180705	GW	DRA
BARIUM	104/104	100	3.8 J	300	MSA-MW-52S-062618	40.663	40.663	NULL	NULL	44.030	20180626	GW	DRA
BERYLLIUM	45/104	43	0.31 J	51	DMW-17I-070518	3.254	1.510	0.31	0.92	5.161	20180705	GW	DRA
CADMIUM	59/104	57	0.23 J	2600	MSA-MW-45S-052318	82.912	47.083	0.21	0.3	262.323	20180524	GW	DRA
CALCIUM	6/6	100	36000	280000	MSA-MW-48S-062918	155500.000	155500.000	NULL	NULL	89692.252	20180629	GW	DRA
CHROMIUM	71/104	68	0.99 J	4000 J-	MSA-MW-45S-052318	61.215	41.947	0.98	0.98	391.935	20180524	GW	DRA
COBALT	104/104	100	0.2 J	480 J	MSA-MW-24S-052318	58.124	58.124	NULL	NULL	89.271	20180524	GW	DRA
COPPER	80/104	77	1.8 J	1700	DMW-8I-061918	41.960	32.497	1.7	4.7	169.651	20180619	GW	MSA
IRON	96/104	92	47 J	320000	MSA-MW-24S-052318	22948.177	21184.740	47	47	46378.556	20180524	GW	DRA
LEAD	46/104	44	0.45 J	49	DMW-17I-070518	3.105	1.500	0.45	0.59	4.961	20180705	GW	DRA
MAGNESIUM	6/6	100	22000	210000	MSA-MW-18I-070918	78166.667	78166.667	NULL	NULL	75974.777	20180709	GW	DRA
MANGANESE	104/104	100	2.8 J	9000	MSA-MW-6-061418	1880.646	1880.646	NULL	NULL	2091.068	20180614	GW	DRA
MERCURY	12/104	12	0.15 J	2.9	DMW-6D-062018	0.793	0.149	0.13	0.13	0.362	20180620	GW	MSA
MOLYBDENUM	24/104	23	1.1 J	49 J-	DMW-17I-070518	4.588	1.482	1.1	1.1	4.955	20180705	GW	DRA
NICKEL	93/104	89	1.5 J	740 J	MSA-MW-24S-052318	49.044	43.936	1.5	1.5	84.926	20180524	GW	DRA
POTASSIUM	6/6	100	3700 J	42000	MSA-MW-18I-070918	18783.333	18783.333	NULL	NULL	16229.777	20180709	GW	DRA
SELENIUM	54/104	52	0.91 J	68	MSA-MW-24S-052318	7.839	4.351	0.89	3.3	9.420	20180524	GW	DRA
SILICON DIOXIDE	6/6	100	3300	33000	MSA-MW-48S-062918	19183.333	19183.333	NULL	NULL	13200.972	20180629	GW	DRA
SILVER	24/104	23	0.054 J	49 J-	DMW-17I-070518	2.871	0.683	0.053	0.053	4.910	20180705	GW	DRA
SODIUM	6/6	100	6200	450000	MSA-MW-18I-070918	167533.333	167533.333	NULL	NULL	194955.858	20180709	GW	DRA
THALLIUM	12/104	12	0.21 J	49	DMW-17I-070518	4.433	0.600	0.2	0.31	4.793	20180705	GW	DRA
VANADIUM	66/104	63	0.89 J	180	MSA-MW-24S-052318	10.053	6.530	0.82	0.82	19.808	20180524	GW	DRA
Inorganics, Filtered (ug/L)													
ANTIMONY	12/104	12	0.67 J	2.8	DMW-1S-053018	1.321	0.405	0.57	0.57	0.401	20180530	GW	MSA
ARSENIC	69/104	66	0.77 J	37	MSA-MW-39S-070218	5.850	4.008	0.75	0.75	5.808	20180702	GW	DRA
BARIUM	104/104	100	3.9 J	290	MSA-MW-52S-062618	39.670	39.670	NULL	NULL	42.879	20180626	GW	DRA
BERYLLIUM	41/104	39	0.32 J	8.9	MSA-MW-24S-052318	2.255	0.996	0.31	0.89	1.624	20180524	GW	DRA
CADMIUM	51/104	49	0.21 J	2900	MSA-MW-45S-052318	95.357	46.815	0.21	0.21	289.467	20180524	GW	DRA
CHROMIUM	60/104	58	1 J	4800 J-	MSA-MW-45S-052318	83.998	48.668	0.98	0.98	470.445	20180524	GW	DRA

Table 4-2

Statistical Summary of Groundwater Sampling Results - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Parameter	Annual 2018 Dump Road Martin State Airport Ground Water Samples													
	Frequency of		Minimum Conc Detected	Maximum Conc Detected	Sample of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Conc ND	Maximum Conc ND	Std Dev	Sample Date	Matrix	Site	
	Number	Percent												
Inorganics, Filtered (ug/L), continued														
COBALT	104/104	100	0.2 J	460 J	MSA-MW-24S-052318	57.885	57.885	NULL	NULL	88.101	20180524	GW	DRA	
COPPER	58/104	56	1.7 J	820	DMW-8I-061918	35.759	20.396	1.7	12	85.127	20180619	GW	MSA	
IRON	91/104	88	47 J	330000	MSA-MW-24S-052318	23720.571	20758.438	47	47	46080.322	20180524	GW	DRA	
LEAD	25/104	24	0.53 J	6.8	DMW-1S-053018	1.738	0.589	0.45	0.52	0.979	20180530	GW	MSA	
MANGANESE	103/104	99	4.2 J	8900	MSA-MW-6-061418	1901.603	1883.328	2.1	2.1	2105.763	20180614	GW	DRA	
MERCURY	5/104	5	0.13 J	2.2	DMW-6D-062018	0.788	0.100	0.13	0.13	0.224	20180620	GW	MSA	
MOLYBDENUM	19/104	18	1.1 J	13	MSA-MW-14D-062218	3.016	1.000	1.1	1.1	1.509	20180622	GW	DRA	
NICKEL	93/104	89	1.5 J	700 J	MSA-MW-24S-052318	48.771	43.692	1.5	1.5	82.421	20180524	GW	DRA	
SELENIUM	49/104	47	1 J	66	MSA-MW-24S-052318	7.184	3.683	0.89	3.9	8.044	20180524	GW	DRA	
SILVER	8/104	8	0.059 J	0.68 J	MSA-MW-49D-062818	0.217	0.041	0.053	0.053	0.075	20180628	GW	DRA	
THALLIUM	13/104	13	0.2 J	1.1	MSA-MW-24S-052318	0.344	0.131	0.2	0.29	0.115	20180524	GW	DRA	
VANADIUM	54/104	52	0.91 J	170	MSA-MW-24S-052318	9.797	5.284	0.82	0.82	19.639	20180524	GW	DRA	
Miscellaneous (mg/L)														
HEXAVALENT CHROMIUM (ug/L)	10/39	26	0.085 J	4.8	MSA-MW-14D-062218	0.887	0.245	0.047	0.047	0.870	20180622	GW	DRA	
PERCHLORATE (ug/L)	17/45	38	0.1 J	2.3	DMW-4D-062918	0.514	0.220	0.082	0.082	0.462	20180629	GW	MSA	
ALKALINITY	6/6	100	8	530	MSA-MW-48S-062918	238.000	238.000	NULL	NULL	169.706	20180629	GW	DRA	
AMMONIA	6/6	100	0.56 J	13	MSA-MW-18I-070918	5.120	5.120	NULL	NULL	5.459	20180709	GW	DRA	
CHLORIDE	6/6	100	27	480	MSA-MW-18S-071018	195.000	195.000	NULL	NULL	208.469	20180710	GW	DRA	
DISSOLVED ORGANIC CARBON	9/9	100	2.4	40	MSA-MW-18S-071018	14.189	14.189	NULL	NULL	12.637	20180710	GW	DRA	
NITRATE-N	2/6	33	0.75	1.2	MSA-MW-48D-062918	0.975	0.331	0.014	0.028	0.519	20180629	GW	DRA	
NITRITE-N	1/6	17	0.037 J	0.037 J	MSA-MW-48D-062918	0.037	0.013	0.014	0.028	0.012	20180629	GW	DRA	
PHOSPHATE	2/3	67	0.44	0.68	MSA-MW-18S-071018	0.560	0.392	0.11	0.11	0.315	20180710	GW	DRA	
SULFATE	6/6	100	65	1900	MSA-MW-18I-070918	670.833	670.833	NULL	NULL	697.928	20180709	GW	DRA	
TOTAL DISSOLVED SOLIDS	6/6	100	430	3700	MSA-MW-18I-070918	1531.667	1531.667	NULL	NULL	1296.509	20180709	GW	DRA	
Petroleum Hydrocarbons (ug/L)														
TPH (C06-C10)	23/44	52	52 J	94000	MSA-MW-54S-052918	6462.957	3390.057	49	49	14635.673	20180529	GW	DRA	
TPH (C10-C32)	37/44	84	200 J	5100	MSA-MW-52S-062618	1054.054	903.636	200	230	979.453	20180626	GW	DRA	
Radiological (pci/L)														
RADIUM-228	6/10	60	0.33	9.34	DMW-6I-062018	4.221	2.578	0.0928	0.398	3.656	20180620	GW	MSA	
TOTAL ALPHA RADIUM	5/10	50	0.379	3.66	DMW-6I-062018	1.710	0.940	0.241	0.506	1.268	20180620	GW	MSA	

NULL - constituwnt was detected in 100% of the samples; not applicable
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
1/2 the detection limit was used for B qualified data.
J - estimated value
µg/L - micrograms per liter
mg/L - milligrams per liter
Pci/L - picocuries per liter
GW - groundwater
MSA - Martin State Airport
DRA - DRA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-DMW-04D
SAMPLE ID		DMW-1A-053018	DMW-1B-053018	DMW-1S-053018	MSA-DMW-2A-061518	DMW-2B-061918	DMW-2S-061918	DMW-3D-062118	DMW-3I-062118	DMW-3S-062118	DMW-4D-062918
SAMPLE DATE		20180530	20180530	20180530	20180615	20180619	20180619	20180621	20180621	20180621	20180629
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	14 J	0.49 J	25 J	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	120	--	--	--	200	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	22 J	--	--	29 J	--	13 J	--	18 J	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	2.3 J	--	--	140 J	70 J	--
ACETONE	550	--	--	--	--	--	--	--	--	--	--
BENZENE	5	15 J	12 J	--	11 J	--	12 J	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	0.68 J	--	--	11 J	--	--	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	2600	330	1.5	1800	18	2800	--	1500	830	400
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--	6.4 J	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	5.4 J	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	7.7 J	--	--	--	--	--	--
TOLUENE	1000	18 J	--	--	--	--	--	--	--	19 J	--
TOTAL XYLENES	10000	--	--	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	25 J	--	--	10 J	2.3	--	--	--	240	--
TRICHLOROETHENE	5	2200	180	--	3700	5.5	1000	0.24 J	2500	--	1800
VINYL CHLORIDE	2	1300	1000	0.71 J	660	2.2	290	--	520	1300	22 J
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	950 NJ	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	180 NJ	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-04I	MSA-DMW-04S	MSA-DMW-05I	MSA-DMW-05S	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID		DMW-4I-062918	DMW-4S-062918	DMW-5I-071018	DMW-5S-071018	DMW-6D-062018	DMW-6I-062018	DMW-6S-062018	DMW-7D-053118	DMW-7I-053118	DMW-7S-053118
SAMPLE DATE		20180629	20180629	20180710	20180710	20180620	20180620	20180620	20180531	20180531	20180531
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--	3.2 J	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	16 J	--	--	--	--	--	--	1.8 J	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--	--	--	2.3 J	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	8.5 J	0.91 J	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--	--	--
BENZENE	5	--	--	--	--	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	0.56 J	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	0.66 J	--	--	--	0.23 J	--	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	0.29 J	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	1100	190	25	6100	--	--	5	0.16 J	190	8400
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	11 J	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	1.3 J	--	--	--	0.43 J	--	6.8 J	63 J
TRICHLOROETHENE	5	2100	770	26	19000	--	--	--	0.24 J	77	890
VINYL CHLORIDE	2	210	58	3.5	350 J	--	--	--	--	40	2100
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-08I	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I
SAMPLE ID		DMW-8I-061918	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818
SAMPLE DATE		20180619	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	NA	--	NA	--	NA	--	--	--
1,1-DICHLOROETHANE	90	--	--	NA	--	NA	--	NA	--	--	--
1,1-DICHLOROETHENE	7	1.1 J	--	NA	--	NA	--	NA	2 J	--	3.2 J
1,2,3-TRIMETHYLBENZENE	NA	--	--	NA	--	NA	66 J	NA	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	NA	--	NA	--	NA	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	NA	--	NA	170 J	NA	--	--	--
1,2-DICHLOROBENZENE	600	--	--	NA	--	NA	--	NA	--	1.6	--
1,2-DICHLOROETHANE	5	2.5	--	NA	15 J	NA	--	NA	2.9 J	--	--
1,3-DICHLOROBENZENE	1.8	--	--	NA	--	NA	--	NA	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	NA	--	NA	--	NA	--	0.56 J	--
1,4-DICHLOROBENZENE	75	--	--	NA	--	NA	--	NA	--	0.39 J	--
2,2-DICHLOROPROPANE	NA	--	--	NA	--	NA	--	NA	--	--	--
2-BUTANONE	700	--	--	NA	--	NA	--	NA	--	--	--
ACETONE	550	--	--	NA	--	NA	--	NA	--	--	--
BENZENE	5	1.1 J	11 J	NA	17 J	NA	170 J	NA	0.57 J	2.1	--
CARBON DISULFIDE	100	--	--	NA	--	NA	--	NA	--	--	--
CARBON TETRACHLORIDE	5	--	--	NA	17 J	NA	--	NA	4.4	--	--
CHLOROBENZENE	100	--	--	NA	--	NA	110 J	NA	--	--	--
CHLOROETHANE	3.6	--	--	NA	--	NA	--	NA	--	--	--
CHLOROFORM	80	--	120	NA	29 J	NA	--	NA	3.7 J	--	--
CIS-1,2-DICHLOROETHENE	70	180	380	NA	1300	NA	460	NA	110	0.22 J	280
DICHLORODIFLUOROMETHANE	NA	--	--	NA	--	NA	--	NA	--	0.57 J	--
DIISOPROPYL ETHER	NA	--	--	NA	--	NA	--	NA	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	NA	--	NA	--	NA	--	--	--
ETHYLBENZENE	700	--	--	NA	--	NA	1200	NA	--	--	--
ISOPROPYLBENZENE	66	--	--	NA	--	NA	--	NA	--	0.13 J	--
M+P-XYLENES	NA	--	--	NA	--	NA	14000	NA	--	0.17 J	--
NAPHTHALENE	0.65	--	--	NA	--	NA	--	NA	--	--	--
N-PROPYLBENZENE	NA	--	--	NA	--	NA	--	NA	--	--	--
O-XYLENE	NA	--	--	NA	--	NA	1400	NA	--	--	--
SEC-BUTYLBENZENE	NA	--	--	NA	--	NA	--	NA	--	0.86 J	--
TERT-BUTYLBENZENE	NA	--	--	NA	--	NA	--	NA	--	0.77 J	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	NA	--	NA	--	NA	--	--	--
TETRACHLOROETHENE	5	--	--	NA	--	NA	--	NA	--	--	--
TOLUENE	1000	--	--	NA	--	NA	1600	NA	--	--	--
TOTAL XYLENES	10000	--	--	NA	--	NA	15000	NA	--	0.17 J	--
TRANS-1,2-DICHLOROETHENE	100	1.9 J	--	NA	--	NA	--	NA	1.1 J	1.9	--
TRICHLOROETHENE	5	180	2200 J	NA	590	NA	--	NA	170	0.27 J	130
VINYL CHLORIDE	2	65	50 J	NA	500	NA	3700	NA	24	0.8 J	64
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.2 NJ	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-11S		MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D
SAMPLE ID		DMW-11S-060818	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-062218	MSA-MW-14I-062218	MSA-MW-15D-052518
SAMPLE DATE		20180608	20180622	20180529	20180515	20180531	20180614	20180622	20180622	20180525
Volatile organic compounds (µg/L)										
1,1,1-TRICHLOROETHANE	200	--	NA	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	NA	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	59 J	NA	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	NA	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	NA	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	NA	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	NA	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	NA	--	0.74 J	--	--	--	--	--
1,3-DICHLOROBENZENE	1.8	--	NA	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	NA	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	NA	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	NA	--	--	--	--	--	--	--
2-BUTANONE	700	--	NA	--	--	--	--	1.5 J	--	--
ACETONE	550	--	NA	--	--	--	--	8.9 J	--	--
BENZENE	5	--	NA	--	0.54 J	--	--	--	6.3 J	--
CARBON DISULFIDE	100	--	NA	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	NA	--	--	--	--	--	--	--
CHLOROBENZENE	100	--	NA	--	1	--	--	--	67	--
CHLOROETHANE	3.6	--	NA	--	--	--	--	--	--	--
CHLOROFORM	80	--	NA	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	4700	NA	1.3	1.3	3400	--	--	260	--
DICHLORODIFLUOROMETHANE	NA	--	NA	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	NA	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	NA	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	NA	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	NA	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	NA	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	NA	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	NA	--	--	--	--	--	--	--
O-XYLENE	NA	--	NA	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	NA	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	NA	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	NA	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	NA	--	--	--	--	--	--	--
TOLUENE	1000	58 J	NA	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	NA	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	NA	--	0.84 J	64 J	--	--	--	--
TRICHLOROETHENE	5	780	NA	0.15 J	--	--	--	--	--	--
VINYL CHLORIDE	2	4700	NA	0.27 J	2	590	--	--	740	--
Tentatively identified compounds-volatiles (µg/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	2 NJ	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-15I	MSA-MW-16D	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I	MSA-MW-18S	MSA-MW-19D
SAMPLE ID		MSA-MW-15I-052518	DMW-16D-070218	DMW-16I-070218	DMW-16S-070218	DMW-17D-070218	DMW-17I-070518	DMW-17S-070518	MSA-MW-18I-070918	MSA-MW-18S-071018	MSA-MW-19D-053018
SAMPLE DATE		20180525	20180702	20180702	20180702	20180702	20180705	20180705	20180709	20180710	20180530
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	NA	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	NA	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	NA	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	NA	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	0.38 J	NA	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	NA	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	1.5	NA	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	0.33 J	NA	5.8 J	--	--	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	0.45 J	NA	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	NA	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	0.39 J	NA	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	NA	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	NA	--	--	--	--	--
ACETONE	550	--	--	--	--	NA	--	--	--	19	--
BENZENE	5	--	--	--	6.6	NA	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	NA	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	NA	--	--	--	--	0.59 J
CHLOROBENZENE	100	--	--	--	0.63 J	NA	--	--	0.24 J	--	--
CHLOROETHANE	3.6	--	--	--	--	NA	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	NA	--	--	--	--	0.32 J
CIS-1,2-DICHLOROETHENE	70	0.26 J	--	250	6.2	NA	990	0.17 J	5.7	4.2	1.6
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	NA	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	3 J	NA	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	0.18 J	NA	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	NA	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	NA	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	NA	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	NA	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	NA	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	NA	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	NA	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	NA	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	NA	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	NA	--	--	--	--	--
TOLUENE	1000	--	--	--	--	NA	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	NA	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	NA	--	--	--	--	--
TRICHLOROETHENE	5	0.6 J	--	1200	--	NA	510	0.23 J	7.4	--	16
VINYL CHLORIDE	2	--	--	18 J	61	NA	32	--	2.1	0.44 J	0.3 J
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	2.9 NJ	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-20D	MSA-MW-20I	MSA-MW-20S	MSA-MW-21D	MSA-MW-21I	MSA-MW-22D	MSA-MW-23D	MSA-MW-23S
SAMPLE ID		MSA-MW-20D-051618	MSA-MW-20I-051618	MSA-MW-20S-051618	MSA-MW-21D-052418	MSA-MW-21I-052418	MSA-MW-22D-052118	MSA-MW-23D-052218	MSA-MW-23S-052218
SAMPLE DATE		20180516	20180516	20180516	20180524	20180524	20180521	20180522	20180522
Volatile organic compounds (µg/L)									
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	3.4 J	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	0.15 J
1,2-DICHLOROETHANE	5	0.38 J	--	--	--	--	--	--	0.35 J
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--
BENZENE	5	--	--	--	--	--	--	--	2.5
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	3.3	--
CHLOROBENZENE	100	--	--	0.62 J	--	--	--	--	0.42 J
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--	1.6	--
CIS-1,2-DICHLOROETHENE	70	2	--	5.8	0.27 J	370	--	--	1.7
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	0.31 J
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	0.29 J
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	--	2.9 J	--	--	0.19 J
TRICHLOROETHENE	5	17	--	0.88 J	0.51 J	110	--	1.3	--
VINYL CHLORIDE	2	--	--	2.7	--	100	--	--	5.4
Tentatively identified compounds-volatiles (µg/L)									
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-24I	MSA-MW-24S	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D	MSA-MW-30I	MSA-MW-31D
SAMPLE ID		MSA-MW-24I-052318	MSA-MW-24S-052318	MSA-MW-25I-051518	MSA-MW-25S-051518	MSA-MW-26S-052118	MSA-MW-27D-061918	MSA-MW-29D-070918	MSA-MW-30D-062018	MSA-MW-30I-052318	MSA-MW-31D-062218
SAMPLE DATE		20180524	20180524	20180515	20180515	20180521	20180619	20180709	20180620	20180524	20180622
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	0.33 J	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--	--	--
BENZENE	5	--	0.19 J	--	--	--	--	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	88	--	--	--	--	--	--	--	9.5	--
CHLOROBENZENE	100	--	--	--	--	--	--	--	--	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	3.4 J	--	--	--	--	--	--	--	2.8 J	--
CIS-1,2-DICHLOROETHENE	70	1.9 J	--	0.34 J	58	0.51 J	--	--	--	1.7 J	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	0.12 J	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	2	--	--	--	--	--	--
TRICHLOROETHENE	5	290	--	--	0.39 J	--	--	--	--	230	--
VINYL CHLORIDE	2	--	--	--	17	0.32 J	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID		MSA-MW-32I-060818	MSA-MW-32S-060818	MSA-MW-33I-052518	MSA-MW-33S-052518	MSA-MW-34I-061518	MSA-MW-34S-061518	MSA-MW-35S-051418	MSA-MW-36S-051418	MSA-MW-37S-051418	MSA-MW-38S-071018
SAMPLE DATE		20180608	20180608	20180525	20180525	20180615	20180615	20180514	20180514	20180514	20180710
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	0.36 J	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	4.2 J	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	--	3.9 J	0.43 J	0.33 J	--	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	1.5 J	--	--	--
2-BUTANONE	700	5.8 J	--	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--	--	--
BENZENE	5	--	--	--	7.2 J	1.9 J	0.15 J	--	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	--	--	--	--	--	--	--	--	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	--	--	--	360	23	2	9.7	--	--	--
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	4.8 J	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	2.8 J	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--	--	--
TOLUENE	1000	--	--	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	7.6 J	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	--	--	3.7 J	--	--	--	--	--	--
TRICHLOROETHENE	5	--	--	0.19 J	380	--	--	2	--	--	--
VINYL CHLORIDE	2	--	--	--	64	82	1.5	2.1 J	--	--	--
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	2.1 NJ	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I	MSA-MW-42S	MSA-MW-43S
SAMPLE ID		MSA-MW-39S-070218	MSA-MW-40I-061418	MSA-MW-40S-061418	MSA-MW-41I-052218	MSA-MW-41S-052218	MSA-MW-42I-052118	MSA-MW-42S-052118	MSA-MW-43S-070218
SAMPLE DATE		20180702	20180614	20180614	20180522	20180522	20180521	20180521	20180702
Volatile organic compounds (µg/L)									
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	15 J	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	54 J	--
1,2-DICHLOROBENZENE	600	0.22 J	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	0.32 J	--	--	110	50 J	--	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	7.6 J	--	--	--	--
2,2-DICHLOROPROPANE	NA	0.42 J	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--
BENZENE	5	1.3	--	--	28 J	21 J	7.1 J	--	0.13 J
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	4.7	--	--	310	--	--	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	3.6	1200	3300	950	1100	820	600	0.41 J
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	200	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	99	3900	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	25 J	320	--
SEC-BUTYLBENZENE	NA	0.16 J	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	0.14 J	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--
TOLUENE	1000	0.15 J	--	--	--	--	10 J	170 J	--
TOTAL XYLENES	10000	--	--	--	--	--	120	4200	--
TRANS-1,2-DICHLOROETHENE	100	0.25 J	40	80	7.9 J	--	--	--	--
TRICHLOROETHENE	5	3.2	120	--	280	2400	7.9 J	--	--
VINYL CHLORIDE	2	1.9	39	56 J	1100	770	340	270	--
Tentatively identified compounds-volatiles (µg/L)									
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	2.5 NJ	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	3.2 NJ	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	4.4 NJ	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	120 NJ	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-44S	MSA-MW-45S	MSA-MW-46D	MSA-MW-46I	MSA-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID		MSA-MW-44S-061518	MSA-MW-45S-052318	MSA-MW-46D-062818	MSA-MW-46I-062818	MSA-MW-46S-062818	MSA-MW-47D-062718	MSA-MW-47I-062718	MSA-MW-47S-062718	MSA-MW-48D-062918	MSA-MW-48I-062918
SAMPLE DATE		20180615	20180524	20180628	20180628	20180628	20180627	20180627	20180627	20180629	20180629
Volatile organic compounds (µg/L)											
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	2.4	--	--	--	0.75 J	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--	11 J	1.3 J	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	990 J	--	--	--	--	14 J	--	9.9 J	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	480 J	0.6 J	22	--	13 J	39	4.7	4.4 J	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	5.7 J	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	2.4	210 J	--	--	--	--	5.5 J	--	39	50 J
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--	--	--
BENZENE	5	0.33 J	170 J	--	4.8 J	--	--	7.4 J	1.1 J	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	0.33 J	160 J	--	72	--	--	57	6.9	--	--
CHLOROETHANE	3.6	1	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	20 J	23 J	2.7	--	--
CIS-1,2-DICHLOROETHENE	70	1.5	21000	11	320	0.32 J	110	400	48	570	7200
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	0.11 J	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	0.25 J	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	0.19 J	--	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	4.7	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	0.21 J	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	0.13 J	--	--	--	--	--	2.5 J	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--	--	--
TOLUENE	1000	0.22 J	920 J	--	--	--	--	--	--	--	73 J
TOTAL XYLENES	10000	0.32 J	--	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	0.46 J	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	5	--	35000	38	510	0.1 J	1200	980	110	370	1200
VINYL CHLORIDE	2	2.3	13000	0.95 J	260	--	26 J	370	46	210	7700
Tentatively identified compounds-volatiles (µg/L)											
1,3-OXATHIOLANE	NA	4 NJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-48S	MSA-MW-49D	MSA-MW-49I	MSA-MW-49S	MSA-MW-50D	MSA-MW-50I	MSA-MW-50S	MSA-MW-51D	MSA-MW-51I
SAMPLE ID		MSA-MW-48S-062918	MSA-MW-49D-062818	MSA-MW-49I-062818	MSA-MW-49S-062818	MSA-MW-50D-062618	MSA-MW-50I-062618	MSA-MW-50S-062618	MSA-MW-51D-062718	MSA-MW-51I-062718
SAMPLE DATE		20180629	20180628	20180628	20180628	20180626	20180626	20180626	20180627	20180627
Volatile organic compounds (µg/L)										
1,1,1-TRICHLOROETHANE	200	--	68 J	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	26 J	4 J	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	150 J	130	17 J	--	0.27 J	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	--	--	6 J	0.37 J	0.51 J	1.9 J	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	0.95 J	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	4200	--
BENZENE	5	1.1 J	--	--	--	--	0.19 J	--	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	--	--	--
CHLOROBENZENE	100	1.1 J	--	--	--	0.28 J	0.39 J	1.8 J	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	--	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	1.2 J	2100	1300	170	16	51	80	8.6 J	44
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	--	--	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	--	--	--	--	7100	--
TETRACHLOROETHENE	5	--	--	--	--	--	0.34 J	0.73 J	--	--
TOLUENE	1000	0.64 J	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	--	--	--	--	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	--	39 J	--	--	0.54 J	0.79 J	2.8 J	--	1.6
TRICHLOROETHENE	5	--	6400	3600	670	29	62	160	12 J	19
VINYL CHLORIDE	2	120	280	530	37	3.2	5.4	18	--	2.2
Tentatively identified compounds-volatiles (µg/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-51S	MSA-MW-52D	MSA-MW-52I	MSA-MW-52S	MSA-MW-53I	MSA-MW-53S	MSA-MW-54I	MSA-MW-54S
SAMPLE ID		MSA-MW-51S-062718	MSA-MW-52D-062618	MSA-MW-52I-062618	MSA-MW-52S-062618	MSA-MW-53I-070218	MSA-MW-53S-070218	MSA-MW-54I-052918	MSA-MW-54S-052918
SAMPLE DATE		20180627	20180626	20180626	20180626	20180702	20180702	20180529	20180529
Volatile organic compounds (µg/L)									
1,1,1-TRICHLOROETHANE	200	--	--	--	--	--	--	--	--
1,1-DICHLOROETHANE	90	--	--	--	--	--	--	--	--
1,1-DICHLOROETHENE	7	--	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	--	--	--	1.1 J	--	--	--	--
1,2,4-TRICHLOROBENZENE	70	--	--	330 J	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	600	--	--	--	--	--	--	--	--
1,2-DICHLOROETHANE	5	--	200 J	190 J	1.2	--	0.52 J	--	--
1,3-DICHLOROBENZENE	1.8	--	--	--	--	--	--	--	--
1,3-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	75	--	--	--	--	--	--	--	--
2,2-DICHLOROPROPANE	NA	--	--	--	--	--	--	--	--
2-BUTANONE	700	--	--	--	--	--	--	--	--
ACETONE	550	--	--	--	--	--	--	--	--
BENZENE	5	--	--	--	1.9	--	0.52 J	--	--
CARBON DISULFIDE	100	--	--	--	--	--	--	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	--	--	5500	4300
CHLOROBENZENE	100	--	200 J	150 J	1.1	--	0.14 J	--	--
CHLOROETHANE	3.6	--	--	--	--	--	--	--	--
CHLOROFORM	80	--	89 J	75 J	--	--	--	1800	3200
CIS-1,2-DICHLOROETHENE	70	3700	3900	7400	24	16000	4.5	4000	27000
DICHLORODIFLUOROMETHANE	NA	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	--	--	0.18 J	--	--	--	--
ETHYL TERT-BUTYL ETHER	NA	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	--	--	1.8	--	--	--	--
ISOPROPYLBENZENE	66	--	--	--	0.33 J	--	--	--	--
M+P-XYLENES	NA	--	--	--	0.71 J	--	--	--	170 J
NAPHTHALENE	0.65	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	--	--	0.36 J	--	--	--	--
SEC-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--
TERT-BUTYLBENZENE	NA	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	2100 J	--	--	--	--
TETRACHLOROETHENE	5	--	--	--	--	--	--	--	--
TOLUENE	1000	--	--	--	0.36 J	--	--	1700	18000
TOTAL XYLENES	10000	--	--	--	1.1 J	--	--	--	--
TRANS-1,2-DICHLOROETHENE	100	19 J	--	--	4	--	--	--	--
TRICHLOROETHENE	5	4300	17000	20000	0.81 J	5600	1.8	18000	37000
VINYL CHLORIDE	2	100	1900	2700	49	5000	8.7	240 J	2200
Tentatively identified compounds-volatiles (µg/L)									
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	0.46	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-01A DMW-1A-053018 20180530	MSA-DMW-01B DMW-1B-053018 20180530	MSA-DMW-01S DMW-1S-053018 20180530	MSA-DMW-02A MSA-DMW-2A-061518 20180615	MSA-DMW-02B DMW-2B-061918 20180619	MSA-DMW-02S DMW-2S-061918 20180619	MSA-DMW-03D DMW-3D-062118 20180621	MSA-DMW-03I DMW-3I-062118 20180621	MSA-DMW-03S DMW-3S-062118 20180621	MSA-DMW-04D DMW-4D-062918 20180629
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	--	NA	NA	--	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	71	31	8.4	160	--	220	--	140	220	12
Total metals (µg/L)											
ANTIMONY	6	--	--	3.1	--	--	--	1.9 J	--	--	--
ARSENIC	10	10	1.2 J	1.5 J	--	--	--	2.2 J	1.5 J	4.1 J	--
BARIUM	2000	19	22	44	13	6.4	24	21	17	82	18
BERYLLIUM	4	--	--	--	2.8	--	--	--	0.84 J	--	3.9
CADMIUM	5	260	86	1.4	430	--	8.8	0.74 J	150	--	10
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	11	2.3	--	4.7	--	2.8	2.6	4.6	4.7	1.3 J
COBALT	NA	27	25	0.41 J	360	1.7	27	5.8	240	0.9 J	130
COPPER	1300	7	15	12	35	--	5	11	1.8 J	4	48
IRON	300	31000	20000	600	17000	--	5100	1100	37000	2300	220
LEAD	15	--	0.57 J	11	2.2	--	--	2.3	--	2.7	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	3200	3300	22	6900	7.9	1400	33 J	5700 J	160 J	3300 J-
MERCURY	2	0.18 J	--	--	--	--	--	--	--	--	2
MOLYBDENUM	NA	--	--	--	--	--	--	6	--	2.3 J	--
NICKEL	73	52	20	1.8 J	120	2.8	6.7	10	110	3.1	110
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	--	9.1	--	--	0.92 J	6.1	2 J	18
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	0.31 J	--	--	--	0.48 J	--	--
VANADIUM	3.7	--	--	1.3 J	11	--	--	8.7	9.8	6.4	--
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	2.8	--	1.3 J	--	1.9 J	--	--	--
ARSENIC	10	10	1.6 J	2.1 J	--	0.77 J	0.81 J	2.1 J	2.5 J	7	--
BARIUM	2000	18	23	49	12	6.8	26	19	17	85	19
BERYLLIUM	4	--	--	--	2.8	--	--	--	0.55 J	--	4
CADMIUM	5	260	89	1.2	450	0.28 J	1.3	0.66 J	140	--	11
CHROMIUM	100	10	2.4	--	3	--	3.1	--	4.2	1.9 J	--
COBALT	NA	26	25	0.59 J	360	1.7	30	5.7	260	0.76 J	130
COPPER	1300	6.1	16	6.9	34	--	--	11	2.9	--	50
IRON	300	30000	19000	910	16000	--	5700	180	42000	250	47 J
LEAD	15	--	0.55 J	6.8	1.9	--	--	--	--	--	--
MANGANESE	50	3200 J	3200 J	30 J	7000	4.9 J	1600	31	5900	140	3400 J-
MERCURY	2	0.13 J	--	--	--	--	--	--	--	--	0.57
MOLYBDENUM	NA	--	--	--	--	--	--	6.1	--	4.1 J	--
NICKEL	73	53	21	2.1	130	2.4	6.6	9.6	110	--	110
SELENIUM	50	--	--	--	8.1	--	1 J	1.1 J	5.1	2 J	18
SILVER	100	--	--	--	--	--	--	--	--	--	--
THALLIUM	2	--	--	--	0.3 J	--	--	--	0.48 J	--	--
VANADIUM	3.7	--	--	1.5 J	4 J	--	--	6.8	8.1	2.6 J	--
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	--	NA	--	NA	NA	NA	NA	NA	--	NA
PERCHLORATE	2.6	NA	NA	NA	--	NA	--	NA	NA	NA	2.3

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-04I DMW-4I-062918 20180629	MSA-DMW-04S DMW-4S-062918 20180629	MSA-DMW-05I DMW-5I-071018 20180710	MSA-DMW-05S DMW-5S-071018 20180710	MSA-DMW-06D DMW-6D-062018 20180620	MSA-DMW-06I DMW-6I-062018 20180620	MSA-DMW-06S DMW-6S-062018 20180620	MSA-DMW-07D DMW-7D-053118 20180531	MSA-DMW-07I DMW-7I-053118 20180531	MSA-DMW-07S DMW-7S-053118 20180531
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	2 J	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	31	16	2.3	26	--	--	--	--	4.5	54
Total metals (µg/L)											
ANTIMONY	6	--	--	--	--	1 J	1.6 J	--	--	--	--
ARSENIC	10	--	1.7 J	--	--	--	0.98 J	4.8 J	--	3.3 J	2 J
BARIUM	2000	13	9.4	16	14	44	16	48	40	9.7	11
BERYLLIUM	4	2.6	--	3	1.2	0.82 J	3.9	--	--	3.3	--
CADMIUM	5	16	3.6	4.5	1.6	0.69 J	4.6	--	0.27 J	6.6	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	3.5	--	4.7	2	--	3.2	--	--	5	--
COBALT	NA	100	40	96	82	35	59	5.6	11	48	12
COPPER	1300	80	--	150	20	8.3	23	--	9.3	24	2
IRON	300	25000	20000	660	63000	340	28000	130000	--	30000	22000
LEAD	15	1.3	1.2	3.6	0.72 J	--	1.6	--	3.5	5	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	4700 J-	3300 J-	1500	7000	920 J	4600 J	1300 J	35	2200	6400
MERCURY	2	--	--	--	--	2.9	0.45	--	0.84	--	--
MOLYBDENUM	NA	--	--	--	--	--	--	--	--	--	--
NICKEL	73	92	14	88	53	34	52	2.5	18	54	10
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	8.2	2.7 J	6.7	9.2	1.5 J	1.1 J	--	--	8.5	1.7 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	0.34 J	--	--	--	--
VANADIUM	3.7	7.1	1.1 J	--	4.3 J	--	1.5 J	--	--	11	--
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	--	--	--	--	--	--	--	--
ARSENIC	10	--	1.3 J	--	--	--	0.77 J	4.4 J	--	3.4 J	1.6 J
BARIUM	2000	13	9.3	16	13	46	15	47	40	9.7	12
BERYLLIUM	4	1.9	--	2.9	1.3	0.82 J	3.9	--	--	3.3	--
CADMIUM	5	16	2.1	4.7	1.5	0.68 J	3	--	0.22 J	6.5	--
CHROMIUM	100	3	--	4.8	2	--	1.6 J	--	--	4.4	--
COBALT	NA	100	40	100	80	38	62	5.5	11	48	12
COPPER	1300	54	--	160	24	16	8.3	--	9.7	22	3.6
IRON	300	24000	18000	670	63000	420	29000	120000	--	30000	19000
LEAD	15	1.1	--	3.6	0.82 J	--	0.83 J	--	3.3	3.8	--
MANGANESE	50	4700 J-	3300 J-	1600	6900	1000	4900	1300	34	2200	6400
MERCURY	2	--	--	--	--	2.2	--	--	0.67	--	--
MOLYBDENUM	NA	--	--	--	--	--	--	--	--	--	--
NICKEL	73	90	14	93	52	37	54	2.4	18	54	11
SELENIUM	50	7.8	2.5 J	6.8	8.6	1.7 J	1.1 J	--	--	8.4	2.4 J
SILVER	100	--	--	--	--	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	0.26 J	--	--	--	--
VANADIUM	3.7	6.3	--	--	4.8 J	--	--	--	--	11	--
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	--	NA	NA	NA
PERCHLORATE	2.6	0.13 J	NA	--	NA	0.13 J	NA	NA	NA	--	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-08I	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I
SAMPLE ID		DMW-8I-061918	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818
SAMPLE DATE		20180619	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608
Volatile gases (µg/L)							NA	NA			
ETHANE	NA	NA	0.1 U	NA	8.3	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	16	NA	46	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	390	NA	620	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)							NA	NA			
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	24	39	NA	79	NA	29	NA	13	7.4	--
Total metals (µg/L)											
ANTIMONY	6	--	--	NA	--	NA	--	NA	--	--	--
ARSENIC	10	--	5.7	NA	1.3 J	NA	1.4 J	NA	14	15	--
BARIUM	2000	15	40	NA	34	NA	75	NA	50	21	3.8 J
BERYLLIUM	4	4.7	0.66 J	NA	1.7	NA	--	NA	--	--	--
CADMIUM	5	64	--	NA	2.7	NA	--	NA	0.32 J	0.42 J	--
CALCIUM	NA	NA	8200	NA	60000	NA	81000	NA	NA	NA	NA
CHROMIUM	100	5.7	--	NA	--	NA	1.1 J	NA	3.1 J-	1.5 J	--
COBALT	NA	140	320	NA	270	NA	--	NA	11 J	3.3 J	1.1
COPPER	1300	1700	2.2	NA	7	NA	--	NA	4 J	--	13
IRON	300	--	13000	NA	6000	NA	22000	NA	10000	57000	180
LEAD	15	4.3	0.53 J	NA	3.2	NA	--	NA	1.4 J-	--	2.2
MAGNESIUM	NA	NA	5900	NA	28000	NA	53000	NA	NA	NA	NA
MANGANESE	50	4900	2200	NA	4600	NA	2400	NA	260 J	1400 J	27
MERCURY	2	--	--	NA	--	NA	--	NA	--	--	0.17 J
MOLYBDENUM	NA	--	--	NA	--	NA	--	NA	--	--	--
NICKEL	73	95	42	NA	70	NA	--	NA	7.7 J	--	3.4
POTASSIUM	NA	NA	840 J	NA	12000	NA	9100	NA	NA	NA	NA
SELENIUM	50	10	1.1 J	NA	3.4 J	NA	1.6 J	NA	1.1 J	1.3 J	--
SILICON DIOXIDE	NA	NA	7600	NA	10000	NA	4900	NA	NA	NA	NA
SILVER	100	--	--	NA	--	NA	--	NA	--	--	--
SODIUM	NA	NA	30000	NA	81000	NA	110000	NA	NA	NA	NA
THALLIUM	2	0.24 J	--	NA	--	NA	--	NA	--	--	--
VANADIUM	3.7	--	1.9 J	NA	--	NA	10	NA	6	--	--
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	NA	--	NA	--	NA	--	--	--
ARSENIC	10	--	5.1	NA	0.92 J	NA	1.3 J	NA	15	15	0.82 J
BARIUM	2000	13	39	NA	34	NA	77	NA	50	21	3.9 J
BERYLLIUM	4	4.5	0.6 J	NA	1.9	NA	--	NA	--	--	--
CADMIUM	5	63	--	NA	2.9	NA	--	NA	--	--	--
CHROMIUM	100	3.4	--	NA	--	NA	1.1 J	NA	1.4 J	--	--
COBALT	NA	140	310	NA	290	NA	--	NA	11 J	3.2 J	1.2
COPPER	1300	820	--	NA	5.4	NA	--	NA	--	--	13
IRON	300	900	12000	NA	6700	NA	23000	NA	11000	55000	180
LEAD	15	4.1	--	NA	2.6	NA	--	NA	--	--	2.2
MANGANESE	50	4600	2200	NA	4900	NA	2500	NA	280 J	1300 J	28
MERCURY	2	--	--	NA	--	NA	--	NA	--	--	--
MOLYBDENUM	NA	--	--	NA	--	NA	--	NA	--	--	--
NICKEL	73	95	41	NA	73	NA	--	NA	7.6 J	--	3.3
SELENIUM	50	9.8	1.2 J	NA	3.9 J	NA	1.6 J	NA	--	1.4 J	--
SILVER	100	--	--	NA	--	NA	--	NA	--	--	--
THALLIUM	2	0.22 J	--	NA	--	NA	--	NA	--	--	--
VANADIUM	3.7	--	1.8 J	NA	--	NA	10	NA	3.6 J	--	--
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-11S		MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D
SAMPLE ID		DMW-11S-060818	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-062218	MSA-MW-14I-062218	MSA-MW-15D-052518
SAMPLE DATE		20180608	20180622	20180529	20180515	20180531	20180614	20180622	20180622	20180525
Volatile gases (µg/L)										
ETHANE	NA	140	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	700	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	1100	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)										
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)										
1,4-DIOXANE	0.46	5.4	NA	--	12	6.2	--	--	32	--
Total metals (µg/L)										
ANTIMONY	6	--	NA	--	0.76 J	--	--	0.99 J	--	--
ARSENIC	10	6.4	NA	1.2 J	--	2.8 J	1.5 J	1.6 J	21	--
BARIUM	2000	54	NA	26	46	22	11	130	15	4.1 J
BERYLLIUM	4	--	NA	0.4 J	--	--	--	--	--	--
CADMIUM	5	--	NA	--	0.32 J	--	0.77 J	--	--	--
CALCIUM	NA	97000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	1.3 J	NA	1.4 J	1.1 J	--	--	12	--	1.2 J
COBALT	NA	8.7	NA	0.8 J	1.9	0.65 J	37	1	8.4	12
COPPER	1300	3	NA	14	2.9	--	3 J+	27	--	5.1
IRON	300	28000	NA	2400	4600	37000	84000	280	65000	390
LEAD	15	--	NA	1.4	0.76 J	--	--	0.49 J	--	--
MAGNESIUM	NA	25000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	610	NA	62	1100	1500	9000	2.8 J	1600 J	30
MERCURY	2	--	NA	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	NA	--	5.3	2.9 J	--	14	--	--
NICKEL	73	3.6	NA	--	7.8	--	19	2.7	3.5	17
POTASSIUM	NA	6100	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	NA	--	--	4.8 J	--	1.1 J	1.6 J	--
SILICON DIOXIDE	NA	3300	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	NA	--	--	--	--	--	--	--
SODIUM	NA	6200	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	NA	--	--	--	--	--	--	--
VANADIUM	3.7	--	NA	3 J	--	--	7	6.2	--	--
Dissolved metals (µg/L)										
ANTIMONY	6	--	NA	--	--	--	--	1 J	--	--
ARSENIC	10	6.7	NA	1.1 J	--	2.2 J	0.81 J	1.8 J	22	--
BARIUM	2000	53	NA	27	44	22	11	120	16	4 J
BERYLLIUM	4	--	NA	0.32 J	--	--	--	--	--	--
CADMIUM	5	--	NA	--	--	--	0.63 J	--	--	--
CHROMIUM	100	1.2 J	NA	1.4 J	1 J	--	--	9.3	--	--
COBALT	NA	7.7	NA	0.85 J	1.8	0.51 J	36	0.86 J	8.8	12
COPPER	1300	--	NA	2.6	--	--	--	22	--	5.7
IRON	300	29000	NA	2300	4600	37000	81000	130	67000	95 J
LEAD	15	--	NA	--	--	--	--	--	--	--
MANGANESE	50	600	NA	62	1100	1500	8900	--	1700	27
MERCURY	2	--	NA	--	--	--	--	--	--	--
MOLYBDENUM	NA	2.8 J	NA	--	5.3	2.9 J	--	13	--	--
NICKEL	73	3.4	NA	1.6 J	6.5	--	18	2.4	3.6	16
SELENIUM	50	--	NA	--	--	--	--	1.3 J	1.6 J	--
SILVER	100	--	NA	--	--	--	--	--	--	--
THALLIUM	2	--	NA	--	--	--	--	--	--	--
VANADIUM	3.7	--	NA	3.6 J	--	--	0.94 J	5.8	--	--
Miscellaneous parameters (µg/L)										
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	4.8	NA	0.23 J
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA	NA	NA	0.83

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-15I	MSA-MW-16D	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I	MSA-MW-18S	MSA-MW-19D
SAMPLE ID		MSA-MW-15I-052518	DMW-16D-070218	DMW-16I-070218	DMW-16S-070218	DMW-17D-070218	DMW-17I-070518	DMW-17S-070518	MSA-MW-18I-070918	MSA-MW-18S-071018	MSA-MW-19D-053018
SAMPLE DATE		20180525	20180702	20180702	20180702	20180702	20180705	20180705	20180709	20180710	20180530
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	--	--	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	--	--	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	370	170	NA
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	--	--	--	230	NA	--	--	3	3.2	--
Total metals (µg/L)											
ANTIMONY	6	--	--	--	--	NA	51 J-	0.59 J	--	0.86 J	--
ARSENIC	10	2.2 J	--	14	1.7 J	NA	52	6.5 J	1.7 J	2.5 J	2.1 J
BARIUM	2000	23	5.7	6.7	44 J	NA	50	68	100	180	51
BERYLLIUM	4	--	--	0.73 J	--	NA	51	0.67 J	0.34 J	0.36 J	2.4
CADMIUM	5	--	--	0.32 J	--	NA	49	--	1.5	0.42 J	2
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	230000	170000	NA
CHROMIUM	100	--	--	--	2.9	NA	51	1.9 J	2.5	6.6	4.1
COBALT	NA	2.4	8.2	43	18	NA	53	7.6 J	1.9	2.8	220
COPPER	1300	4.3	5.8	3	--	NA	2.5	3.3	1.9 J	5.5	23
IRON	300	1000	150	3400	24000	NA	13000 J-	16000 J	300000	110000	530
LEAD	15	--	--	--	--	NA	49	1.4	--	5	0.57 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	210000	130000	NA
MANGANESE	50	1400	26	59	3100	NA	250	1400 J	3900	1900	2500
MERCURY	2	--	--	--	--	NA	--	--	--	--	--
MOLYBDENUM	NA	3.4 J	--	--	--	NA	49 J-	1.2 J	1.8 J	1.7 J	--
NICKEL	73	4	11	56	20	NA	53	62 J	3.2	8	110
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	42000	36000	NA
SELENIUM	50	--	--	--	--	NA	50	--	1.4 J	1.5 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	29000	31000	NA
SILVER	100	--	--	--	--	NA	49 J-	--	--	0.066 J	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	450000	380000	NA
THALLIUM	2	--	--	--	--	NA	49	--	--	--	0.34 J
VANADIUM	3.7	--	--	--	2 J	NA	50	4 J	2.7 J	8.7	1.3 J
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	--	--	NA	--	--	--	--	--
ARSENIC	10	2.2 J	--	13	1.7 J	NA	19 J	6.1 J	1.3 J	1.5 J	1.8 J
BARIUM	2000	23	4.8 J	4.5 J	44 J	NA	15	64	110	160	57
BERYLLIUM	4	--	--	0.64 J	--	NA	--	0.43 J	--	0.48 J	2.5
CADMIUM	5	--	--	0.31 J	--	NA	--	--	1.3	0.51 J	2.1
CHROMIUM	100	--	--	--	2.9	NA	--	1.1 J	2	1.6 J	3.5
COBALT	NA	2.8	7.6	41	17	NA	28 J	6.3 J	2.9	2.3	240
COPPER	1300	--	7.7	2.4	3.9	NA	--	--	--	--	21
IRON	300	1000	--	2800	25000	NA	6200 J	15000 J	290000	99000	540
LEAD	15	--	--	--	--	NA	--	--	--	0.56 J	--
MANGANESE	50	1500	18 J	54 J	3000 J	NA	58 J	1200 J	3600	1800	2800 J
MERCURY	2	--	--	--	--	NA	--	--	--	--	--
MOLYBDENUM	NA	3.4 J	--	--	--	NA	--	1.1 J	1.6 J	1.4 J	--
NICKEL	73	4.1	10	52	19	NA	35 J	55 J	3.5	6.1	120
SELENIUM	50	--	--	--	--	NA	--	--	1.1 J	1.3 J	--
SILVER	100	--	--	--	--	NA	--	--	--	--	--
THALLIUM	2	--	--	--	--	NA	--	--	--	--	0.37 J
VANADIUM	3.7	--	--	--	1.7 J	NA	0.93 J	3 J	1.8 J	2.2 J	1.2 J
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	NA	0.14 J	NA	NA	0.11 J	NA	NA	NA	NA	NA
PERCHLORATE	2.6	--	0.6	NA	NA	NA	0.11 J	NA	--	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-20D MSA-MW-20D-051618 20180516	MSA-MW-20I MSA-MW-20I-051618 20180516	MSA-MW-20S MSA-MW-20S-051618 20180516	MSA-MW-21D MSA-MW-21D-052418 20180524	MSA-MW-21I MSA-MW-21I-052418 20180524	MSA-MW-22D MSA-MW-22D-052118 20180521	MSA-MW-23D MSA-MW-23D-052218 20180522	MSA-MW-23S MSA-MW-23S-052218 20180522
Volatile gases (µg/L)									
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)									
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)									
1,4-DIOXANE	0.46	1.5	--	--	--	2.2	--	--	4
Total metals (µg/L)									
ANTIMONY	6	--	0.79 J	0.85 J	--	--	1.3 J	--	--
ARSENIC	10	--	--	--	3 J	13	9.5	--	2.1 J
BARIUM	2000	110	46	46	49	29	67	88	29
BERYLLIUM	4	1.4	--	--	--	--	--	0.66 J	--
CADMIUM	5	3.7	--	--	--	--	0.32 J	42	0.65 J
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	--	--	--	5.7 J-	--	3.5	--	5.9
COBALT	NA	120	0.36 J	0.45 J	2.4 J	5.1 J	6.5	100	2.8
COPPER	1300	23	6.5	8.9	7.3 J	1.9 J	9.3	9.6	12
IRON	300	47 J	310	950	690	18000	840	--	5600
LEAD	15	--	0.47 J	--	1.4 J-	1.9 J-	4.2	--	4.4
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	1500	110	130	19 J	400 J	53	820	82
MERCURY	2	1.1	--	--	0.32	--	--	0.28	--
MOLYBDENUM	NA	--	2 J	2.2 J	1.2 J	1.5 J	2.3 J	--	--
NICKEL	73	48	1.5 J	1.7 J	5.2 J	2.6 J	6.8	110	5.9
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	--	--	0.98 J	--	2.5 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	0.062 J	--	0.11 J	--	0.24 J
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--	--	--
VANADIUM	3.7	--	2.2 J	2 J	5.4	0.91 J	10	--	2.6 J
Dissolved metals (µg/L)									
ANTIMONY	6	--	0.7 J	0.99 J	--	--	1.3 J	--	--
ARSENIC	10	--	--	--	2.5 J	13	10	--	1.5 J
BARIUM	2000	110	45	48	40	27	60	88	20
BERYLLIUM	4	1.1	--	--	--	--	0.39 J	0.7 J	--
CADMIUM	5	3.4	--	--	--	--	0.21 J	47	--
CHROMIUM	100	--	--	--	2 J-	--	2.9	--	1.7 J
COBALT	NA	120	0.29 J	0.38 J	1.6 J	4.7 J	7.7	110	2.5
COPPER	1300	24	5.2	3.9	4.7 J	--	6.1	17	--
IRON	300	--	--	620	300	18000	590	--	4700
LEAD	15	--	--	--	--	0.57 J	1.6	--	--
MANGANESE	50	1400	100	120	16 J	410 J	58	930	80
MERCURY	2	0.37	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	1.9 J	2.2 J	--	1.5 J	2.2 J	--	--
NICKEL	73	47	--	1.7 J	3.3 J	2.4 J	6.4	120	4.2
SELENIUM	50	--	--	--	--	1.2 J	--	2.8 J	--
SILVER	100	--	--	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	--	--	--
VANADIUM	3.7	--	1.9 J	1.2 J	3.1 J	--	10	--	--
Miscellaneous parameters (µg/L)									
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	--	0.1 J	NA	NA	--	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-24I	MSA-MW-24S	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D	MSA-MW-30I	MSA-MW-31D
SAMPLE ID		MSA-MW-24I-052318	MSA-MW-24S-052318	MSA-MW-25I-051518	MSA-MW-25S-051518	MSA-MW-26S-052118	MSA-MW-27D-061918	MSA-MW-29D-070918	MSA-MW-30D-062018	MSA-MW-30I-052318	MSA-MW-31D-062218
SAMPLE DATE		20180524	20180524	20180515	20180515	20180521	20180619	20180709	20180620	20180524	20180622
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	--	1.4	--	--	--	--	--	--	--	--
Total metals (µg/L)											
ANTIMONY	6	--	0.59 J	0.69 J	1.3 J	0.77 J	--	--	--	--	--
ARSENIC	10	--	--	12	2.4 J	12	--	--	--	0.96 J	--
BARIUM	2000	6.3	27	71	68	120	10	4.3 J	6	27	30
BERYLLIUM	4	0.51 J	8.9	--	--	0.31 J	--	--	--	--	--
CADMIUM	5	--	3.9	--	0.35 J	--	--	--	--	0.23 J	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	1.1 J	18 J-	6	1.8 J	7.1	--	--	--	1.5 J	2.7
COBALT	NA	4.2 J	480 J	1.5	3.7	0.71 J	4.3	1.3	3.5	12 J	0.69 J
COPPER	1300	7.5 J	240 J	7.1	7.6	8.2	4.2	--	--	8.5 J	--
IRON	300	720	320000	2400	730	30000	--	--	78 J	1000	3300
LEAD	15	--	0.68 J	0.88 J	--	2.2	--	--	--	0.74 J	0.47 J
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	58 J	7600 J	47	170	570	66	4.1 J	7.7 J	81 J	340 J
MERCURY	2	--	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	2 J	1.1 J	1.1 J	--	--	--	--	--
NICKEL	73	2.6 J	740 J	14	13	--	6.2	--	4.1	12 J	--
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	1.3 J	68	--	--	1.6 J	--	--	--	1 J	1 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	0.06 J	--	--	0.054 J	--	--	--	0.071 J	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	1.1	--	--	--	--	--	--	--	--
VANADIUM	3.7	--	180	6.8	1 J	7.1	--	--	--	3.3 J	1.5 J
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	0.67 J	0.69 J	--	--	--	--	--	--
ARSENIC	10	--	--	13	4.4 J	11	--	--	--	1.1 J	--
BARIUM	2000	6.5	25	68	68	120	9.9	4.3 J	5.5	26	31
BERYLLIUM	4	0.49 J	8.9	--	--	--	--	--	--	--	--
CADMIUM	5	--	3.7	--	0.31 J	--	--	--	--	0.22 J	--
CHROMIUM	100	--	18 J-	4.5	1.5 J	6.7	--	--	--	1.3 J	2.6
COBALT	NA	4.1 J	460 J	1.4	5.3	0.55 J	4	1.4	3.3	12 J	0.4 J
COPPER	1300	7.8 J	230 J	3.4	5	--	4.6	--	4.8	7.8 J	--
IRON	300	--	330000	2000	1200	32000	--	--	--	410	3200
LEAD	15	--	0.54 J	--	--	--	--	--	--	--	--
MANGANESE	50	57 J	7300 J	40	240	600	63	4.2 J	6.5	80 J	330
MERCURY	2	--	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	2.1 J	--	--	--	--	--	--	--
NICKEL	73	2.6 J	700 J	14	13	--	6	1.5 J	4.3	13 J	--
SELENIUM	50	1.1 J	66	--	--	1 J	--	--	--	1.1 J	1.1 J
SILVER	100	--	--	--	--	--	--	--	--	--	--
THALLIUM	2	--	1.1	--	--	--	--	--	--	--	--
VANADIUM	3.7	--	170	6.3	1.1 J	6.6	--	--	--	2.6 J	1.1 J
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	--	--	0.21 J	NA	0.17 J
PERCHLORATE	2.6	--	NA	NA	NA	NA	0.15 J	0.12 J	0.11 J	NA	--

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID		MSA-MW-32I-060818	MSA-MW-32S-060818	MSA-MW-33I-052518	MSA-MW-33S-052518	MSA-MW-34I-061518	MSA-MW-34S-061518	MSA-MW-35S-051418	MSA-MW-36S-051418	MSA-MW-37S-051418	MSA-MW-38S-071018
SAMPLE DATE		20180608	20180608	20180525	20180525	20180615	20180615	20180514	20180514	20180514	20180710
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	--	--	--	--	--	--	1.3 J	--	--	--
Total metals (µg/L)											
ANTIMONY	6	0.85 J	1.4 J	--	--	--	--	--	--	--	--
ARSENIC	10	4.9 J	12	2.6 J	16	--	1.8 J	--	1.8 J	--	11
BARIUM	2000	40	83	42	27	54	68	60	23	40	38
BERYLLIUM	4	--	0.32 J	--	0.51 J	2.8	1	4.4	--	--	0.68 J
CADMIUM	5	0.24 J	0.36 J	--	--	--	0.23 J	0.26 J	--	--	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	3.6	7.2	1 J	2.6	--	1.6 J	--	--	--	1.1 J
COBALT	NA	15	7.2	3.4	31	230	120	330	91	16	26
COPPER	1300	7.7	7.8	9.7	1.9 J	17	23	2.1	2	4.6	5.7
IRON	300	13000	46000	820	11000	930	540	6500	1900	2000	23000
LEAD	15	3.6	4.9	0.52 J	--	--	0.54 J	0.65 J	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	1300	4200	53	55	130	65	530	13	1200	400
MERCURY	2	0.15 J	--	--	--	--	0.46	--	--	--	--
MOLYBDENUM	NA	1.3 J	--	--	--	--	--	--	--	--	--
NICKEL	73	7.6	4.4	6.1	25	280	160	160	120	--	16
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	--	--	--	--	1.1 J	--	--	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	0.14 J	0.13 J	0.14 J	0.094 J	--	--	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--	0.27 J	--	--	--
VANADIUM	3.7	5.1	10	0.99 J	2.2 J	1.1 J	28	0.89 J	2.2 J	3.8 J	9.1
Dissolved metals (µg/L)											
ANTIMONY	6	0.8 J	1.4 J	--	--	--	--	--	--	--	--
ARSENIC	10	4.9 J	11	1.8 J	15	--	1 J	--	--	--	8.3
BARIUM	2000	42	84	38	24	54	65	54	23	45	38
BERYLLIUM	4	--	--	--	--	2.7	0.89 J	4.3	0.66 J	--	--
CADMIUM	5	--	--	--	--	--	--	0.25 J	--	--	--
CHROMIUM	100	3.3	7.3	--	2.3	--	--	--	--	--	--
COBALT	NA	14	6.6	2.2	28	220	120	290	99	17	20
COPPER	1300	3	2.7	7	--	21	5.8	1.8 J	2.7	--	--
IRON	300	13000	47000	180	10000	780	210	5800	990	1100	22000
LEAD	15	1.3	1.8	--	--	--	--	0.53 J	--	--	--
MANGANESE	50	1400	4400	37	50	130	63	470	12	1300	390
MERCURY	2	--	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	--	--	--	--	--
NICKEL	73	5.1	3.8	5	24	280	150	160	130	--	12
SELENIUM	50	--	--	--	--	--	--	--	--	--	--
SILVER	100	--	0.059 J	0.086 J	--	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	--	0.27 J	--	--	--
VANADIUM	3.7	4.8 J	10	--	1.7 J	0.91 J	14	--	--	1.1 J	--
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	NA	NA	--	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-39S MSA-MW-39S-070218 20180702	MSA-MW-40I MSA-MW-40I-061418 20180614	MSA-MW-40S MSA-MW-40S-061418 20180614	MSA-MW-41I MSA-MW-41I-052218 20180522	MSA-MW-41S MSA-MW-41S-052218 20180522	MSA-MW-42I MSA-MW-42I-052118 20180521	MSA-MW-42S MSA-MW-42S-052118 20180521	MSA-MW-43S MSA-MW-43S-070218 20180702
Volatile gases (µg/L)									
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)									
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)									
1,4-DIOXANE	0.46	10	5	5.2	380	210	43	--	1.2
Total metals (µg/L)									
ANTIMONY	6	--	--	--	--	--	--	--	--
ARSENIC	10	47	7.4	5	2.5 J	4.1 J	6.5	1.8 J	1.1 J
BARIUM	2000	27	12	14	100	26	140	31	74
BERYLLIUM	4	--	--	--	--	--	--	--	--
CADMIUM	5	--	0.33 J	--	--	6.9	0.26 J	--	--
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	1.2 J	1.5 J	--	1.7 J	1.6 J	3.6	2.3	--
COBALT	NA	3.6	3.5	11	0.41 J	43	2.4	3.6	0.2 J
COPPER	1300	--	--	13 J+	7.9	2.5	2.7	2.9	3.5
IRON	300	49000	17000	7700	2000	30000	26000	7600	650
LEAD	15	--	--	--	2.9	--	0.85 J	0.45 J	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	220	2900	1900	2000	2800	850	140	490
MERCURY	2	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	1.5 J	--	--
NICKEL	73	2.5	5.4	3.1	--	26	7.7	3.5	--
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	--	--	--	1.4 J	2.1 J	1.2 J	0.91 J	--
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	--	--	--	--	--	0.074 J	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	--	--	--	--	--	--
VANADIUM	3.7	4.3 J	1.4 J	1 J	17	--	1.5 J	3.3 J	--
Dissolved metals (µg/L)									
ANTIMONY	6	--	--	--	--	--	--	--	--
ARSENIC	10	37	7.5	2.1 J	--	4.5 J	6.6	1.8 J	1.3 J
BARIUM	2000	27	12	14	100	19	140	30	71
BERYLLIUM	4	--	--	--	--	--	--	--	--
CADMIUM	5	--	0.31 J	--	--	1.8	--	--	--
CHROMIUM	100	--	1.4 J	--	--	1.2 J	2.7	2.1	--
COBALT	NA	3.7	3.5	11	0.23 J	43	2.2	3.6	0.2 J
COPPER	1300	--	--	--	--	--	--	--	--
IRON	300	45000	17000	5800	1800	32000	26000	7500	1100
LEAD	15	--	--	--	--	--	--	--	--
MANGANESE	50	230 J	2900	1900	670	2800	860	140	510 J
MERCURY	2	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	--	1.5 J	--	--
NICKEL	73	2	5.2	3.1	--	26	7.3	3.4	--
SELENIUM	50	--	--	--	--	2.1 J	1.1 J	--	--
SILVER	100	--	--	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	--	--	--	--
VANADIUM	3.7	1.8 J	1.2 J	--	1.8 J	--	0.92 J	2.6 J	--
Miscellaneous parameters (µg/L)									
HEXAVALENT CHROMIUM	100	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	2.6	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-44S MSA-MW-44S-061518 20180615	MSA-MW-45S MSA-MW-45S-052318 20180524	MSA-MW-46D MSA-MW-46D-062818 20180628	MSA-MW-46I MSA-MW-46I-062818 20180628	MSA-MW-46S MSA-MW-46S-062818 20180628	MSA-MW-47D MSA-MW-47D-062718 20180627	MSA-MW-47I MSA-MW-47I-062718 20180627	MSA-MW-47S MSA-MW-47S-062718 20180627	MSA-MW-48D MSA-MW-48D-062918 20180629	MSA-MW-48I MSA-MW-48I-062918 20180629
Volatile gases (µg/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	260
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	59	1900
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	2300
GC volatiles (µg/L)											
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)											
1,4-DIOXANE	0.46	21	650	--	30	1.6	23	110	23	19	42
Total metals (µg/L)											
ANTIMONY	6	--	--	--	--	--	--	--	--	--	--
ARSENIC	10	--	0.94 J	4.9 J	1.5 J	3.4 J	4.6 J	7.2	9.9	--	8.6
BARIUM	2000	210	22	37	27	26	19	28	35	22	28
BERYLLIUM	4	--	0.4 J	--	0.58 J	--	--	1.8	--	1.5	--
CADMIUM	5	--	2600	--	0.64 J	--	--	79	--	36	32
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	36000	120000
CHROMIUM	100	1.2 J	4000 J-	--	--	2.7	--	2.8	1.1 J	1.3 J	5
COBALT	NA	0.36 J	23 J	9.3	190	6.3	25	81	7.9	180	120
COPPER	1300	4.3	9.4 J	--	--	2.1	--	50	--	20	2
IRON	300	4800	170	8500	10000	6400	8800	5000	7800	--	8000
LEAD	15	--	--	--	--	--	--	--	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	22000	46000
MANGANESE	50	1000	2600 J	22 J-	1400 J-	710 J-	390 J-	3500 J-	3900 J-	3100 J-	3300 J-
MERCURY	2	--	--	--	--	--	--	0.66	--	--	--
MOLYBDENUM	NA	--	1.1 J	--	--	--	--	--	--	--	--
NICKEL	73	--	130 J	11	94	3.7	14	33	3.1	77	31
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	3700 J	9900
SELENIUM	50	1.1 J	4.6 J	--	7.3	--	--	20	--	9	3.4 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	8800	10000
SILVER	100	--	--	--	--	--	11	1.6	--	0.073 J	0.17 J
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	56000 J	88000 J
THALLIUM	2	--	--	--	--	--	--	--	--	--	--
VANADIUM	3.7	10	67	--	--	0.94 J	--	2.3 J	1.2 J	--	1.4 J
Dissolved metals (µg/L)											
ANTIMONY	6	--	--	--	--	--	--	--	--	--	--
ARSENIC	10	--	1.3 J	4.7 J	1.1 J	2.3 J	3.8 J	4.6 J	9.4	--	8.4
BARIUM	2000	210	22	41	25	26	18	25	34	23	29
BERYLLIUM	4	--	0.45 J	--	0.53 J	--	--	0.76 J	--	1.8	--
CADMIUM	5	--	2900	--	0.53 J	--	--	18	--	35	16
CHROMIUM	100	1.3 J	4800 J-	--	--	3.5	--	1.2 J	1.1 J	1.3 J	5.5
COBALT	NA	0.42 J	25 J	10	170	6.1	23	79	8.1	170	150
COPPER	1300	--	10 J	--	--	--	--	--	--	19	1.7 J
IRON	300	8100	--	9200	9800	5800	8200	3700	7500	--	8700
LEAD	15	--	--	--	--	--	--	--	--	--	1
MANGANESE	50	1200	2700 J	24 J-	1300 J-	700 J-	360 J-	3400 J-	3800 J-	2900 J-	3700 J-
MERCURY	2	--	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	1.1 J	--	--	--	--	--	--	--	--
NICKEL	73	--	150 J	12	88	3.5	12	32	3.3	73	36
SELENIUM	50	1.5 J	5	--	6.6	--	--	9.1	--	8.9	2.5 J
SILVER	100	--	--	--	--	--	0.3 J	0.29 J	--	--	--
THALLIUM	2	--	--	--	--	--	--	--	--	0.2 J	--
VANADIUM	3.7	9.1	100	--	--	--	--	--	0.99 J	--	0.93 J
Miscellaneous parameters (µg/L)											
HEXAVALENT CHROMIUM	100	NA	NA	--	--	--	--	--	--	--	--
PERCHLORATE	2.6	NA	NA	--	--	--	--	--	--	--	--

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-48S MSA-MW-48S-062918 20180629	MSA-MW-49D MSA-MW-49D-062818 20180628	MSA-MW-49I MSA-MW-49I-062818 20180628	MSA-MW-49S MSA-MW-49S-062818 20180628	MSA-MW-50D MSA-MW-50D-062618 20180626	MSA-MW-50I MSA-MW-50I-062618 20180626	MSA-MW-50S MSA-MW-50S-062618 20180626	MSA-MW-51D MSA-MW-51D-062718 20180627	MSA-MW-51I MSA-MW-51I-062718 20180627
Volatile gases (µg/L)										
ETHANE	NA	14	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	150	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	87	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)										
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)										
1,4-DIOXANE	0.46	3.1	26	26	14	0.98	1.7	3.1	0.92	1.5
Total metals (µg/L)										
ANTIMONY	6	2.5	--	--	--	--	--	--	0.66 J	--
ARSENIC	10	0.76 J	--	--	--	--	11	--	1.2 J	0.77 J
BARIUM	2000	36	16	13	21	19	18	14	5.6	16
BERYLLIUM	4	--	7.6	6.8	--	2.4	3.6	3.1	0.5 J	2.1
CADMIUM	5	0.52 J	20	23	0.46 J	2.5	1.1	8.4	--	1.2
CALCIUM	NA	280000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	0.99 J	4.7	6.5	--	3.3	9.7	5.2	--	5.7
COBALT	NA	0.34 J	200	110	74	100	170	100	1.9	79
COPPER	1300	5	94	75	3.1	42	--	19	--	--
IRON	300	--	9000	35000	32000	17000	25000	30000	200	51000
LEAD	15	--	1.5	0.85 J	--	0.59 J	--	1.9	--	--
MAGNESIUM	NA	36000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	6.7 J-	6600 J-	6200 J-	4500 J-	2100 J	2700 J	2400 J	1400 J-	3900 J-
MERCURY	2	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	1.7 J	--	--	--	--	--	--	--	--
NICKEL	73	2.7	97	71	22	58	52	86	1.9 J	30
POTASSIUM	NA	15000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	1.1 J	30	28	--	7.3	8.1	12	--	14
SILICON DIOXIDE	NA	33000	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	--	1.1	1.7	--	--	--	--	0.31 J	--
SODIUM	NA	25000 J	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	0.38 J	0.25 J	--	--	--	--	--	0.21 J
VANADIUM	3.7	2.8 J	9.3	4.7 J	--	2.6 J	14	4.3 J	--	4.4 J
Dissolved metals (µg/L)										
ANTIMONY	6	2.3	--	--	--	--	--	--	--	--
ARSENIC	10	1.1 J	--	--	--	1.3 J	12	--	1.3 J	--
BARIUM	2000	36	15	15	22	21	18	14	5.5	16
BERYLLIUM	4	--	7.7	6.9	--	2.8	3.5	3	0.35 J	2
CADMIUM	5	0.62 J	19	24	0.48 J	2.6	1	8.1	--	1.1
CHROMIUM	100	1 J	4.8	5.6	--	3.5	9.9	5.1	--	5.8
COBALT	NA	0.4 J	200	120	81	100	160	100	1.3	80
COPPER	1300	12	97	77	--	32	6.7	11	--	--
IRON	300	--	8800	37000	35000	18000	25000	30000	170	52000
LEAD	15	--	1.4	0.73 J	--	0.6 J	--	1.5	--	--
MANGANESE	50	7.5 J-	6700 J-	6600 J-	5000 J-	2200	2700	2400	1500 J-	3900 J-
MERCURY	2	--	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	1.8 J	--	--	--	--	--	--	--	--
NICKEL	73	2.9	94	77	24	58	53	84	1.5 J	31
SELENIUM	50	1.1 J	30	30	--	7.3	8.2	12	--	14
SILVER	100	--	0.68 J	--	--	--	--	--	0.092 J	--
THALLIUM	2	--	0.36 J	0.25 J	--	0.22 J	--	--	--	0.2 J
VANADIUM	3.7	2.8 J	9.2	3.8 J	--	2.5 J	15	4.3 J	--	4.2 J
Miscellaneous parameters (µg/L)										
HEXAVALENT CHROMIUM	100	0.085 J	--	--	--	--	--	--	2.8	0.2 J
PERCHLORATE	2.6	--	1.5	1.6	--	0.17 J	--	--	0.16 J	--

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-51S	MSA-MW-52D	MSA-MW-52I	MSA-MW-52S	MSA-MW-53I	MSA-MW-53S	MSA-MW-54I	MSA-MW-54S
SAMPLE ID		MSA-MW-51S-062718	MSA-MW-52D-062618	MSA-MW-52I-062618	MSA-MW-52S-062618	MSA-MW-53I-070218	MSA-MW-53S-070218	MSA-MW-54I-052918	MSA-MW-54S-052918
SAMPLE DATE		20180627	20180626	20180626	20180626	20180702	20180702	20180529	20180529
Volatile gases (µg/L)									
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC volatiles (µg/L)									
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile organic compounds (µg/L)									
1,4-DIOXANE	0.46	25	310	390	84	240	94	82	510
Total metals (µg/L)									
ANTIMONY	6	--	--	--	--	--	--	--	--
ARSENIC	10	--	11	--	22	6.8	9.3	4.1 J	3.9 J
BARIUM	2000	17	21	16	300	18	49 J	24	25
BERYLLIUM	4	0.84 J	3	2.1	--	3	--	0.88 J	1.8
CADMIUM	5	1.4	91	410	--	130	--	41	250
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	100	1.3 J	13	3.1	2	29	5.7	5	6
COBALT	NA	28	170	320	1.8	200	13	170	88
COPPER	1300	--	2.6	16	--	260	--	--	--
IRON	300	7400	5400	13000	42000	17000	20000	5000	14000
LEAD	15	--	0.84 J	3.2	--	--	--	--	--
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	50	3600 J-	3800 J	6100 J	520 J	4200	430	3100	1800
MERCURY	2	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	1.3 J	--	2.2 J	--	--
NICKEL	73	23	73	100	--	160	12	150	84
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	50	6.2	8	7.7	1.6 J	12	--	5.1	5.2
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	100	0.32 J	0.47 J	0.96 J	0.96 J	--	--	--	--
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	2	--	--	0.27 J	--	--	--	--	--
VANADIUM	3.7	--	4 J	14	2.5 J	49	--	--	1.3 J
Dissolved metals (µg/L)									
ANTIMONY	6	--	--	--	--	--	--	--	--
ARSENIC	10	--	9.7	--	17	6.6	1.3 J	4.3 J	3.8 J
BARIUM	2000	19	20	16	290	26	44	25	25
BERYLLIUM	4	1.1	2.8	2.2	--	3	--	1.3	1.8
CADMIUM	5	1.6	72	240	--	120	--	40	250
CHROMIUM	100	1.3 J	12	2.8	1.7 J	29	1.7 J	5.2	5.9
COBALT	NA	32	160	320	1.8	220	12	170	88
COPPER	1300	--	4.6	2.9	--	100	2.6	--	6.4
IRON	300	9100	5300	13000	38000	21000	9000	5000	15000
LEAD	15	--	0.62 J	1.7	--	--	--	--	--
MANGANESE	50	4100 J-	3700	6000	530	4100 J	380 J	3000	1900
MERCURY	2	--	--	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	1.3 J	--	--	--	--
NICKEL	73	27	70	100	--	180	11	140	84
SELENIUM	50	7.4	7.7	7.5	1.2 J	12	--	6	5.4
SILVER	100	--	--	0.14 J	0.089 J	--	--	--	--
THALLIUM	2	--	--	0.24 J	--	--	--	--	--
VANADIUM	3.7	--	3 J	9.4	2.2 J	47	--	--	--
Miscellaneous parameters (µg/L)									
HEXAVALENT CHROMIUM	100	0.12 J	--	--	--	--	--	--	--
PERCHLORATE	2.6	0.27 J	--	--	--	0.34 J	--	0.12 J	--

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-DMW-04D
SAMPLE ID		DMW-1A-053018	DMW-1B-053018	DMW-1S-053018	MSA-DMW-2A-061518	DMW-2B-061918	DMW-2S-061918	DMW-3D-062118	DMW-3I-062118	DMW-3S-062118	DMW-4D-062918
SAMPLE DATE		20180530	20180530	20180530	20180615	20180619	20180619	20180621	20180621	20180621	20180629
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	NA	--	NA	NA	2000	NA	NA	660	NA
TPH-DRO (C10-C32)	47	NA	NA	--	NA	NA	2300	NA	NA	240 J	NA
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	NA	NA	--	7.22	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	--	0.379	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-04I	MSA-DMW-04S	MSA-DMW-05I	MSA-DMW-05S	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S
SAMPLE ID		DMW-4I-062918	DMW-4S-062918	DMW-5I-071018	DMW-5S-071018	DMW-6D-062018	DMW-6I-062018	DMW-6S-062018	DMW-7D-053118	DMW-7I-053118	DMW-7S-053118
SAMPLE DATE		20180629	20180629	20180710	20180710	20180620	20180620	20180620	20180531	20180531	20180531
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	520	NA	15000	NA	NA	--	NA	NA	2300
TPH-DRO (C10-C32)	47	NA	360 J	NA	630	NA	NA	480	NA	NA	910
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	6.76	9.34	1.06	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	2.85	3.66	0.579	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-08I	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I
SAMPLE ID		DMW-8I-061918	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818
SAMPLE DATE		20180619	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	--	NA	82	NA	500	NA	NA	NA	NA
AMMONIA	NA	NA	--	NA	5.3	NA	2	NA	NA	NA	NA
CHLORIDE	NA	NA	52	NA	100	NA	100	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	2.4	NA	9.6	NA	21	NA	NA	NA
NITRATE-N	NA	NA	--	NA	0.099 J	NA	--	NA	NA	NA	NA
NITRITE-N	NA	NA	--	NA	--	NA	--	NA	NA	NA	NA
PHOSPHATE	NA	NA	--	NA	--	NA	0.34	NA	NA	NA	NA
SULFATE	NA	NA	62	NA	300	NA	38	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	180	NA	660	NA	700	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	NA	NA	NA	NA	40000	NA	NA	90 J	NA
TPH-DRO (C10-C32)	47	NA	NA	NA	NA	NA	2000	NA	NA	1600	NA
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-DMW-11S		MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D
SAMPLE ID		DMW-11S-060818	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-062218	MSA-MW-14I-062218	MSA-MW-15D-052518
SAMPLE DATE		20180608	20180622	20180529	20180515	20180531	20180614	20180622	20180622	20180525
Miscellaneous parameters (mg/L)										
ALKALINITY	NA	270	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	2.8	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	27	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	9.6	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	--	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	--	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	--	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	65	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	430	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)										
TPH-GRO (C06-C10)	47	3600	NA	--	--	2000	--	NA	NA	NA
TPH-DRO (C10-C32)	47	1300	NA	--	850	870	1100	NA	NA	NA
Radionuclides (pCi/L)										
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-15I	MSA-MW-16D	MSA-MW-16I	MSA-MW-16S	MSA-MW-17D	MSA-MW-17I	MSA-MW-17S	MSA-MW-18I	MSA-MW-18S	MSA-MW-19D
SAMPLE ID		MSA-MW-15I-052518	DMW-16D-070218	DMW-16I-070218	DMW-16S-070218	DMW-17D-070218	DMW-17I-070518	DMW-17S-070518	MSA-MW-18I-070918	MSA-MW-18S-071018	MSA-MW-19D-053018
SAMPLE DATE		20180525	20180702	20180702	20180702	20180702	20180705	20180705	20180709	20180710	20180530
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	200	180	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	13	11	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	440	480	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	27	40	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	--	--	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	--	--	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	0.44	0.68	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	1900	1100	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	3700	2500	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	NA	NA	85 J	NA	NA	--	NA	--	NA
TPH-DRO (C10-C32)	47	NA	NA	NA	1300	NA	NA	200 J	NA	690	NA
Radionuclides (pCi/L)											
RADIUM-228	5	NA	0.33	--	0.617	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	--	--	1.08 J	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION / SAMPLE ID / SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-20D MSA-MW-20D-051618 20180516	MSA-MW-20I MSA-MW-20I-051618 20180516	MSA-MW-20S MSA-MW-20S-051618 20180516	MSA-MW-21D MSA-MW-21D-052418 20180524	MSA-MW-21I MSA-MW-21I-052418 20180524	MSA-MW-22D MSA-MW-22D-052118 20180521	MSA-MW-23D MSA-MW-23D-052218 20180522	MSA-MW-23S MSA-MW-23S-052218 20180522
Miscellaneous parameters (mg/L)									
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)									
TPH-GRO (C06-C10)	47	NA	NA	--	NA	NA	NA	NA	--
TPH-DRO (C10-C32)	47	NA	NA	800	NA	NA	NA	NA	820
Radionuclides (pCi/L)									
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-24I	MSA-MW-24S	MSA-MW-25I	MSA-MW-25S	MSA-MW-26S	MSA-MW-27D	MSA-MW-29D	MSA-MW-30D	MSA-MW-30I	MSA-MW-31D
SAMPLE ID		MSA-MW-24I-052318	MSA-MW-24S-052318	MSA-MW-25I-051518	MSA-MW-25S-051518	MSA-MW-26S-052118	MSA-MW-27D-061918	MSA-MW-29D-070918	MSA-MW-30D-062018	MSA-MW-30I-052318	MSA-MW-31D-062218
SAMPLE DATE		20180524	20180524	20180515	20180515	20180521	20180619	20180709	20180620	20180524	20180622
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	--	NA	55 J	68 J	NA	NA	NA	NA	NA
TPH-DRO (C10-C32)	47	NA	380 J	NA	--	280 J	NA	NA	NA	NA	NA
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	NA	--	--	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	--	--	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-32I	MSA-MW-32S	MSA-MW-33I	MSA-MW-33S	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S
SAMPLE ID		MSA-MW-32I-060818	MSA-MW-32S-060818	MSA-MW-33I-052518	MSA-MW-33S-052518	MSA-MW-34I-061518	MSA-MW-34S-061518	MSA-MW-35S-051418	MSA-MW-36S-051418	MSA-MW-37S-051418	MSA-MW-38S-071018
SAMPLE DATE		20180608	20180608	20180525	20180525	20180615	20180615	20180514	20180514	20180514	20180710
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	NA	--	NA	460	NA	--	--	--	--	--
TPH-DRO (C10-C32)	47	NA	750	NA	--	NA	--	930	--	300 J	--
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I	MSA-MW-41S	MSA-MW-42I	MSA-MW-42S	MSA-MW-43S
SAMPLE ID		MSA-MW-39S-070218	MSA-MW-40I-061418	MSA-MW-40S-061418	MSA-MW-41I-052218	MSA-MW-41S-052218	MSA-MW-42I-052118	MSA-MW-42S-052118	MSA-MW-43S-070218
SAMPLE DATE		20180702	20180614	20180614	20180522	20180522	20180521	20180521	20180702
Miscellaneous parameters (mg/L)									
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)									
TPH-GRO (C06-C10)	47	88 J	NA	1700	NA	--	NA	65 J	74 J
TPH-DRO (C10-C32)	47	2100	NA	960	NA	490	NA	1000	1300
Radionuclides (pCi/L)									
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-44S	MSA-MW-45S	MSA-MW-46D	MSA-MW-46I	MSA-MW-46S	MSA-MW-47D	MSA-MW-47I	MSA-MW-47S	MSA-MW-48D	MSA-MW-48I
SAMPLE ID		MSA-MW-44S-061518	MSA-MW-45S-052318	MSA-MW-46D-062818	MSA-MW-46I-062818	MSA-MW-46S-062818	MSA-MW-47D-062718	MSA-MW-47I-062718	MSA-MW-47S-062718	MSA-MW-48D-062918	MSA-MW-48I-062918
SAMPLE DATE		20180615	20180524	20180628	20180628	20180628	20180627	20180627	20180627	20180629	20180629
Miscellaneous parameters (mg/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	240
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.56 J	2.8
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	74	120
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.4	8.3
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	--
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.037 J	--
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	270	330
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	530	930
Petroleum hydrocarbons (µg/L)											
TPH-GRO (C06-C10)	47	52 J	25000	NA	NA	--	NA	NA	--	NA	NA
TPH-DRO (C10-C32)	47	780	3200	NA	NA	590	NA	NA	1200	NA	NA
Radionuclides (pCi/L)											
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION / SAMPLE ID / SAMPLE DATE	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-48S MSA-MW-48S-062918 20180629	MSA-MW-49D MSA-MW-49D-062818 20180628	MSA-MW-49I MSA-MW-49I-062818 20180628	MSA-MW-49S MSA-MW-49S-062818 20180628	MSA-MW-50D MSA-MW-50D-062618 20180626	MSA-MW-50I MSA-MW-50I-062618 20180626	MSA-MW-50S MSA-MW-50S-062618 20180626	MSA-MW-51D MSA-MW-51D-062718 20180627	MSA-MW-51I MSA-MW-51I-062718 20180627
Miscellaneous parameters (mg/L)										
ALKALINITY	NA	530	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	0.56 J	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	29	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	7.4	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	--	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	360	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	1100	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)										
TPH-GRO (C06-C10)	47	--	NA	NA	480	NA	NA	200	NA	NA
TPH-DRO (C10-C32)	47	360 J	NA	NA	330 J	NA	NA	340 J	NA	NA
Radionuclides (pCi/L)										
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-3

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1] [2] [3]	MSA-MW-51S	MSA-MW-52D	MSA-MW-52I	MSA-MW-52S	MSA-MW-53I	MSA-MW-53S	MSA-MW-54I	MSA-MW-54S
SAMPLE ID		MSA-MW-51S-062718	MSA-MW-52D-062618	MSA-MW-52I-062618	MSA-MW-52S-062618	MSA-MW-53I-070218	MSA-MW-53S-070218	MSA-MW-54I-052918	MSA-MW-54S-052918
SAMPLE DATE		20180627	20180626	20180626	20180626	20180702	20180702	20180529	20180529
Miscellaneous parameters (mg/L)									
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum hydrocarbons (µg/L)									
TPH-GRO (C06-C10)	47	--	NA	NA	73 J	NA	78 J	NA	94000
TPH-DRO (C10-C32)	47	440 J	NA	NA	5100	NA	520	NA	3200
Radionuclides (pCi/L)									
RADIUM-228	5	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	5	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008) unless noted.
2 United States Environmental Protection Agency $1x10^{-6}$ Regional Screening Level for 1,4-dioxane. MDE standard not available.
3 United States Environmental Protection Agency Radionuclides Rule 66 FR 76708. MDE standard not available.
Gray shading indicates value exceeds groundwater standard.
µg/L - micrograms per liter
DRO - diesel-range organic
GRO - gasoline-range organic
J - chemical detected, concentration is estimated
J+ - chemical detected, concentration is estimated high
J- - chemical detected, concentration is estimated low
-- - not detected
MT - Main Terminal
MW - monitoring well
NA - value not available (second column) or not analyzed
NJ - analyte tentatively identified; concentration is estimated
TPH - total petroleum hydrocarbons

Table 4-4

Statistical Summary of Groundwater Sampling Results - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Annual 2018 Main Terminal Ground Water Samples												
Parameter	Frequency of Detection		Minimum Conc Detected	Maximum Conc Detected	Sample of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Conc ND	Maximum Conc ND	Std Dev	Sample Date	Matrix
	Number	Percent										
Volatile Organics (ug/L)												
1,2,3-TRIMETHYLBENZEN	1/12	8	3.6 J	3.6 J	MT-MW02S-051018	3.600	0.401	0.22	0.22	1.007	20180510	GW
1,2,4-TRIMETHYLBENZEN	1/12	8	4.1	4.1	MT-MW02S-051018	4.100	0.452	0.24	0.24	1.149	20180510	GW
4-ISOPROPYLTOLUENE	1/12	8	0.52 J	0.52 J	MT-MW02S-051018	0.520	0.176	0.29	0.29	0.108	20180510	GW
BENZENE	2/12	17	0.65 J	17	MT-MW02S-051018	8.825	1.588	0.28	0.28	4.856	20180510	GW
CHLOROFORM	2/12	17	0.32 J	1.8	MT-MW12S-050818	1.060	0.306	0.31	0.31	0.473	20180508	GW
CIS-1,2-DICHLOROETHENE	1/12	8	2.3	2.3	MT-MW02S-051018	2.300	0.329	0.3	0.3	0.621	20180510	GW
DIISOPROPYL ETHER	1/12	8	1.2 J	1.2 J	MT-MW02S-051018	1.200	0.302	0.44	0.44	0.283	20180510	GW
ETHYLBENZENE	1/12	8	7.5	7.5	MT-MW02S-051018	7.500	0.744	0.26	0.26	2.128	20180510	GW
ISOPROPYLBENZENE	1/12	8	9.2	9.2	MT-MW02S-051018	9.200	0.863	0.21	0.21	2.626	20180510	GW
M+P-XYLENES	1/12	8	22	22	MT-MW02S-051018	22.000	1.943	0.24	0.24	6.316	20180510	GW
N-PROPYLBENZENE	1/12	8	2.1	2.1	MT-MW02S-051018	2.100	0.381	0.45	0.45	0.541	20180510	GW
NAPHTHALENE	1/12	8	0.75 J	0.75 J	MT-MW02S-051018	0.750	0.177	0.25	0.25	0.180	20180510	GW
O-XYLENE	1/12	8	13	13	MT-MW02S-051018	13.000	1.212	0.28	0.28	3.712	20180510	GW
SEC-BUTYLBENZENE	1/12	8	0.34 J	0.34 J	MT-MW02S-051018	0.340	0.152	0.27	0.27	0.059	20180510	GW
STYRENE	1/12	8	0.4 J	0.4 J	MT-MW02S-051018	0.400	0.139	0.23	0.23	0.082	20180510	GW
TERTIARY-BUTYL ALCOH	1/12	8	75	75	MT-MW02S-051018	75.000	8.358	4.6	4.6	20.987	20180510	GW
TOTAL XYLENES	1/12	8	35	35	MT-MW02S-051018	35.000	3.027	0.24	0.24	10.069	20180510	GW
TRICHLOROETHENE	1/12	8	0.54 J	0.54 J	MT-MW05S-050818	0.540	0.196	0.33	0.33	0.108	20180508	GW
Inorganics (ug/L)												
ARSENIC	2/12	17	1.7 J	3.2 J	MT-MW02S-051018	2.450	0.721	0.75	0.75	0.869	20180510	GW
BARIUM	12/12	100	11	250	MT-MW06S-050818	72.083	72.083	NULL	NULL	67.863	20180508	GW
BERYLLIUM	12/12	100	0.69 J	110	MT-MW06S-050818	17.442	17.442	NULL	NULL	31.785	20180508	GW
CADMIUM	3/12	25	0.42 J	6.2	MT-MW06S-050818	2.530	0.711	0.21	0.21	1.747	20180508	GW
CHROMIUM	3/12	25	1.1 J	1.5 J	MT-MW12S-050818	1.300	0.693	0.98	0.98	0.376	20180508	GW
COBALT	12/12	100	7.2	1400	MT-MW06S-050818	327.275	327.275	NULL	NULL	430.091	20180508	GW
COPPER	6/12	50	3	83	MT-MW04S-050918	32.083	16.467	1.7	1.7	26.546	20180509	GW
IRON	11/12	92	47 J	110000	MT-MW02S-051018	17396.091	15948.375	47	47	32558.310	20180510	GW
LEAD	4/12	33	0.6 J	1.6	MT-MW06S-050818	0.955	0.468	0.45	0.45	0.430	20180508	GW
MANGANESE	12/12	100	26	23000	MT-MW06S-050818	3979.500	3979.500	NULL	NULL	6845.248	20180508	GW

Table 4-4

Statistical Summary of Groundwater Sampling Results - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

Annual 2018 Main Terminal Ground Water Samples												
Parameter	Frequency of Detection		Minimum Conc Detected	Maximum Conc Detected	Sample of Maximum Concentration Detected	Average of Detected Results	Average of All Results	Minimum Conc ND	Maximum Conc ND	Std Dev	Sample Date	Matrix
	Number	Percent										
MOLYBDENUM	2/12	17	1.2 J	2.3 J	MT-MW12S-050818	1.750	0.750	1.1	1.1	0.523	20180508	GW
NICKEL	12/12	100	10	3200	MT-MW06S-050818	618.833	618.833	NULL	NULL	955.486	20180508	GW
SELENIUM	2/12	17	1.8 J	7.3	MT-MW06S-050818	4.550	1.129	0.89	0.89	1.982	20180508	GW
SILVER	1/12	8	0.37 J	0.37 J	MT-MW06S-050818	0.370	0.055	0.053	0.053	0.099	20180508	GW
THALLIUM	5/12	42	0.23 J	0.51 J	MT-MW05S-050818	0.392	0.222	0.2	0.2	0.164	20180508	GW
VANADIUM	4/12	33	0.82 J	1.7 J	MT-MW08S-050718	1.188	0.669	0.82	0.82	0.436	20180507	GW
Inorganics, Filtered (ug/L)												
ARSENIC	2/12	17	1.1 J	3.3 J	MT-MW02S-051018	2.200	0.679	0.75	0.75	0.851	20180510	GW
BARIUM	12/12	100	12	230	MT-MW06S-050818	65.333	65.333	NULL	NULL	61.183	20180508	GW
BERYLLIUM	12/12	100	0.53 J	94	MT-MW06S-050818	15.094	15.094	NULL	NULL	28.066	20180508	GW
CADMIUM	2/12	17	0.92 J	5.8	MT-MW06S-050818	3.360	0.648	0.21	0.21	1.639	20180508	GW
CHROMIUM	1/12	8	1.1 J	1.1 J	MT-MW01S-051018	1.100	0.541	0.98	0.98	0.176	20180510	GW
COBALT	12/12	100	6.7	1200	MT-MW06S-050818	298.958	298.958	NULL	NULL	385.521	20180508	GW
COPPER	8/12	67	1.8 J	86	MT-MW04S-050918	19.350	13.183	1.7	1.7	25.242	20180509	GW
IRON	9/12	75	160	110000	MT-MW02S-051018	17517.778	13144.208	47	47	31770.043	20180510	GW
LEAD	2/12	17	0.55 J	0.96 J	MT-MW05S-050818	0.755	0.313	0.45	0.45	0.224	20180508	GW
MANGANESE	12/12	100	25	21000	MT-MW06S-050818	3643.417	3643.417	NULL	NULL	6287.426	20180508	GW
MOLYBDENUM	2/12	17	1.3 J	1.9 J	MT-MW12S-050818	1.600	0.725	1.1	1.1	0.428	20180508	GW
NICKEL	12/12	100	11	2700	MT-MW06S-050818	565.667	565.667	NULL	NULL	828.324	20180508	GW
SELENIUM	3/12	25	1.1 J	5.2	MT-MW06S-050818	2.600	0.984	0.89	0.89	1.371	20180508	GW
SILVER	1/12	8	0.061 J	0.061 J	MT-MW06S-050818	0.061	0.029	0.053	0.053	0.010	20180508	GW
THALLIUM	4/12	33	0.34 J	0.47 J	MT-MW06S-050818	0.423	0.208	0.2	0.2	0.162	20180508	GW
VANADIUM	2/12	17	1.5 J	4.9 J	MT-MW01S-051018	3.200	0.875	0.82	0.82	1.306	20180510	GW
Petroleum Hydrocarbons (ug/L)												
TPH (C06-C10)	4/12	33	50 J	430	MT-MW02S-051018	146.750	65.250	49	49	115.542	20180510	GW
TPH (C10-C32)	5/12	42	230 J	7000	MT-MW02S-051018	1948.000	876.667	220	230	1980.583	20180510	GW

NULL - constituent was detected in 100% of the samples; not applicable
For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.
1/2 the detection limit was used for B qualified data.
J - estimated value
µg/L - micrograms per liter
MT - Main Terminal
GW - groundwater

Table 4-5

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[(1)]	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID		MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE		20180510	20180510	20180507	20180509	20180508	20180508	20180507	20180507	20180510	20180509	20180509	20180508
Volatile organic compounds (µg/L)													
1,2,3-TRIMETHYLBENZENE	NA	--	3.6 J	--	--	--	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	--	4.1	--	--	--	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	NA	--	0.52 J	--	--	--	--	--	--	--	--	--	--
BENZENE	5	--	17	--	--	--	--	--	--	--	0.65 J	--	--
CHLOROFORM	80	--	--	--	0.32 J	--	--	--	--	--	--	--	1.8
CIS-1,2-DICHLOROETH	70	--	2.3	--	--	--	--	--	--	--	--	--	--
DIISOPROPYL ETHER	NA	--	1.2 J	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	700	--	7.5	--	--	--	--	--	--	--	--	--	--
ISOPROPYLBENZENE	66	--	9.2	--	--	--	--	--	--	--	--	--	--
M+P-XYLENES	NA	--	22	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	0.65	--	0.75 J	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	NA	--	2.1	--	--	--	--	--	--	--	--	--	--
O-XYLENE	NA	--	13	--	--	--	--	--	--	--	--	--	--
SEC-BUTYLBENZENE	NA	--	0.34 J	--	--	--	--	--	--	--	--	--	--
STYRENE	100	--	0.4 J	--	--	--	--	--	--	--	--	--	--
TERTIARY-BUTYL ALC	NA	--	75	--	--	--	--	--	--	--	--	--	--
TOTAL XYLENES	10000	--	35	--	--	--	--	--	--	--	--	--	--
TRICHLOROETHENE	5	--	--	--	--	0.54 J	--	--	--	--	--	--	--
Tentatively identified compounds-volatiles (µg/L)													
CYCLOHEXANE	NA	NA	13 NJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total metals (µg/L)													
ARSENIC	10	1.7 J	3.2 J	--	--	--	--	--	--	--	--	--	--
BARIUM	2000	110	84	12	54	16	250	11	13	44	73	78	120
BERYLLIUM	4	3.1	2.7	2.4	4.7	45	110	0.71 J	0.69 J	5.9	19	1.1	14
CADMIUM	5	--	--	--	--	0.97 J	6.2	--	--	--	--	--	0.42 J
CHROMIUM	100	--	--	1.3 J	--	--	1.1 J	--	--	--	--	--	1.5 J
COBALT	NA	170	58	10	240	440	1400	9.1	7.2	13	330	320	930
COPPER	1300	--	3.5	3	83	29	53	--	--	--	--	--	21
IRON	300	36000	110000	2100	--	180	360	640	730	47 J	1900	3400	36000
LEAD	15	--	--	--	0.6 J	0.92 J	1.6	--	--	--	--	--	0.7 J
MANGANESE	50	2300	830	77	240	6400	23000	51	26	300	730	2800	11000
MOLYBDENUM	NA	--	--	--	--	--	1.2 J	--	--	--	--	--	2.3 J
NICKEL	73	97	48	23	380	900	3200	10	11	17	520	520	1700
SELENIUM	50	--	--	--	--	--	7.3	--	--	--	--	--	1.8 J
SILVER	100	--	--	--	--	--	0.37 J	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	0.51 J	0.44 J	--	--	--	0.34 J	0.44 J	0.23 J
VANADIUM	3.7	0.93 J	0.82 J	--	--	--	--	1.3 J	1.7 J	--	--	--	--

Table 4-5

Detected Analytes and Screening-Criteria Exceedances for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	Maryland Department of the Environment Groundwater Standard[1]	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID		MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE		20180510	20180510	20180507	20180509	20180508	20180508	20180507	20180507	20180510	20180509	20180509	20180508
Dissolved metals (µg/L)													
ARSENIC	10	1.1 J	3.3 J	--	--	--	--	--	--	--	--	--	--
BARIUM	2000	58	86	13	54	16	230	12	12	45	70	78	110
BERYLLIUM	4	1.1	2	2.2	4.7	46	94	0.72 J	0.53 J	5.9	19	0.78 J	4.2
CADMIUM	5	--	--	--	--	0.92 J	5.8	--	--	--	--	--	--
CHROMIUM	100	1.1 J	--	--	--	--	--	--	--	--	--	--	--
COBALT	NA	71	56	11	230	450	1200	9.8	6.7	13	320	330	890
COPPER	1300	7	--	4.3	86	38	13	1.8 J	2.8	--	1.9 J	--	--
IRON	300	13000	110000	320	--	160	--	790	160	--	930	2300	30000
LEAD	15	--	--	--	0.55 J	0.96 J	--	--	--	--	--	--	--
MANGANESE	50	960	940	80	230	6500	21000	56	25	310	720	2900	10000
MOLYBDENUM	NA	1.3 J	--	--	--	--	--	--	--	--	--	--	1.9 J
NICKEL	73	44	40	24	380	920	2700	12	11	17	500	540	1600
SELENIUM	50	--	1.1 J	--	--	1.5 J	5.2	--	--	--	--	--	--
SILVER	100	--	--	--	--	--	0.061 J	--	--	--	--	--	--
THALLIUM	2	--	--	--	--	0.46 J	0.47 J	--	--	--	0.34 J	0.42 J	--
VANADIUM	3.7	4.9 J	--	--	--	--	--	1.5 J	--	--	--	--	--
Petroleum hydrocarbons (µg/L)													
TPH-GRO (C06-C10)	47	--	430	--	50 J	--	--	--	51 J	56 J	--	--	--
TPH-DRO (C10-C32)	47	1700	7000	--	--	--	--	--	230 J	320 J	--	--	490 J

1 Maryland Department of the Environment (MDE) groundwater standards (MDE, 2008) unless noted.
Gray shading indicates value exceeds groundwater standard.

-- - not detected
µg/L - micrograms per liter
DRO - diesel-range organic
GRO - gasoline-range organic
J - detected, concentration is estimated
MT - Main Terminal
MW - monitoring well
NA - not available (column 2) or not analyzed
NJ - tentatively identified; concentration is estimated
TPH - total petroleum hydrocarbons

APPENDICES

Appendix A—Groundwater-Level Record Sheets

Appendix B—Monitoring-Well Purging and Sampling Records

Appendix C—Analytical Data Tables

Appendix D—Data-Validation Reports with Chain-of-Custody Forms

APPENDIX A—GROUNDWATER-LEVEL RECORD SHEETS

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Martin State Airport
Location: Dump Rd
Weather Conditions: Clear 80°
Tidally Influenced: Yes ___ No X

Project No.: 112IC08424
Personnel: MP JM
Measuring Device: Water Level meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-35S	7/3/18	0732		34.32	8.53			Broken Dog Ear
MW-34S		0735		35.61	4.80			Bolt ↓
MW-34I		0736		55.59	4.70			
MW-28I		0746		51.19	6.20			
MW-27D		0747		190.30	2.08			
MW-15S		0751		20.50	4.25			
MW-15I		0752		45.76	4.44			
MW-15D		0753		62.50	4.32			
MW-4		0755		25.70	5.22			
DMW-9S		0758		14.00	6.96			Bolt ↓
DMW-9I		0759		44.10	7.10			
DMW-9D		0800		69.60	7.50			
MW-20S		0804		20.43	7.75			
MW-20I		0805		45.69	7.92			
MW-20D		0806		71.00	8.42			
MW-53S		0808		27.80	16.50			
MW-53I		0809		42.60	11.76			
DMW-8S		0810		20.49	12.30			
DMW-8I		0811		45.36	13.56			
DMW-8D		0812		70.58	13.52			
MW-40S		0820	27.80	~~28~~.	15.55			
MW-40I		0821		43.22	15.89			
MW-5		0822		36.10	20.80			
DMW-7S		0824		26.60	20.13			
DMW-7I		0825		49.52	20.35			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: Martin State Airport
Location: Dump Rd
Weather Conditions: Clear 80°
Tidally Influenced: Yes ___ No X

Project No.: 112IC08424
Personnel: MP / JM
Measuring Device: Water level meter
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
DMW-7D	7/3/18	0826		74.54	20.32			
MW-6		0833		32.54	14.30			
MW-29D		0835		164.00	7.60			
MW-53S		0844		23.10	8.37			
MW-53I		0845		42.14	8.23			
MW-53D		0846		63.06	8.36			
MW-50S		0848		32.90	11.19			
MW-50I		0849		48.02	11.24			
MW-50D		0850		63.00	11.82			
DMW-6S		0855		27.15	17.48			
DMW-6I		0856		53.20	17.28			
DMW-6D		0857		71.80	17.45			
DMW-5S		0900		32.90	20.15			
DMW-5I		0901		58.70	20.14			
DMW-5D		0902		79.35	20.12			
DMW-4S		0905		32.68	19.45			
DMW-4I		0906		58.82	19.10			
DMW-4D		0907		82.40	19.21			
MW-49S		0912		33.04	19.04			
MW-49I		0913		48.02	18.59			
MW-49D		0914		63.15	18.33			
MW-48S		0917		22.58	18.60			
MW-48I		0918		37.85	18.40			
MW-48D		0919		53.05	18.55			
DMW-2S		0921		32.73	20.45			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA GW 2018
Project No.: 112IC08424
Location: MSA
Personnel: JM/WP
Weather Conditions: Sunny, 90°F
Measuring Device: Water Level meter
Tidally Influenced: Yes ___ No X
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
DMW-2A	7/3/18	0922		61.75	20.38			
DMW-2B		0924		94.50	20.10			
DMW-3S		0925		26.01	11.38			
DMW-3I		0926		57.45	14.94			
DMW-3D		0927		84.12	14.78			
MW-18S		0933		24.80	7.40			
MW-18I		0934			7.48			Transducer Stuck
MW-18D		0935		62.25	7.48			
MW-52S		0943		22.80	11.41			
MW-52I		0944		37.80	11.93			
MW-52D		0945		52.70	11.60			
MW-47S		0947		22.70	10.54			
MW-47I		0948		36.70	10.56			
MW-47D		0949		57.95	10.70			
MW-46S		0951		27.95	9.54			
MW-46I		0952		47.94	9.75			
MW-46D		0953		63.00	10.14			
MW-14I		0955		50.64	10.41			
MW-14D		0956		130.00	6.70			
DMW-17S		0958		19.75	6.24			Bolts
DMW-17I		0959		46.35	5.48			↓
DMW-17D		1000		69.98	19.40			↓
DMW-16S		1002		22.28	8.79			Lock
DMW-16I		1003		47.55	7.64			↓
DMW-16D		1004		70.60	7.96			↓

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA GW 2018
Project No.: 112EC08424
Location: MSA
Personnel: MP / JM
Weather Conditions: Sunny, 90°F
Measuring Device: ULM
Tidally Influenced: Yes ___ No X
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-4S	7/3/18	1007		15.00	1.98			
MW-39S		1009		29.60	12.30			Bolts
MW-43S		1011		16.61	15.40			
MW-33S				45.50	7.10			
MW-33I			70.60	~~45.50~~	7.18			
MW-36S		1028		34.80	6.82			
MW-25S		1039		19.72	5.50			
MW-25I		1040		44.00	6.90			
DMW-11S		1042		12.56	4.51			
DMW-11I		1043		32.50	6.25			
MW-37S		1050		24.95	6.64			Bolt
MW-3		1103		29.54	8.25			Bolt
MW-22S		1104		79.45	8.50			
MW-22I		1108		39.70	8.15			
MW-23S		1111		26.85	7.38			
MW-23I		1112		49.21	7.42			
MW-23D		1113		87.80	7.85			
MW-24S		1115		24.95	4.24			
MW-24I		1116		45.20	5.02			
MW-30I		1119		42.82	5.14			
MW-30D		1121		210.00	3.82			
MW-31D		1131		200.00	3.05			
MW-32S		1138		34.90	5.28			New Lid
MW-32I		1139		65.00	5.48			↓
MW-19I		1144		54.50	6.18			Bolt

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA GW 2018
Project No.: 112IC08424
Location: MSA
Personnel: MP / JM
Weather Conditions: Sunny, 90°F
Measuring Device: Water Level Meter
Tidally Influenced: Yes ___ No X
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MW-19D	7/3/18	1145		80.20	6.83			1
MW-2		1147		39.50	6.32			Bolts
DMW-7A		1150		46.63	9.41			
DMW-7B		1151		81.00	10.01			
MW-41S		1154		34.85	7.57			
MW-41I		1155		54.00	7.60			
MW-45S		1156		24.72	7.35			
DMW-01S								
MW-21I		1158		39.50	8.28			
MW-21D		1154		79.00	8.50			
DMW-10S		1200		13.25	7.40			
DMW-10I		1201		37.55	7.58			
MW-42S		1205		11.73	6.10			
MW-42I		1206		33.00	6.18			
MW-26S		1209		20.85	8.58			
MW-26I		1210		45.05	8.91			
MW-26D		1211		67.80	8.99			
~~MW-43S~~								
~~MW-43I~~								
GSP-MW-07		1339		29.82	4.15			
GSP-MW-04		1340		20.40	3.60			Bolts
GSP-MW-18		1342		29.75	2.70			
GSP-MW-24I		1344		58.08	6.20			Lock
GSP-MW-25I		1350		58.50	6.39			
GSP-MW-02		1352		31.03	6.56			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA GW 2018
Project No.: 112IC08424
Location: MSA
Personnel: JM/WP
Weather Conditions: Sunny 90°F
Measuring Device: WLM
Tidally Influenced: Yes ___ No (X)
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
GSP-MW-26I	7/3/18	1355		59.90	9.55			
GSP-MW-20		1357		14.75	5.45			
GSP-MW-01		1359		14.90	5.95			
GSP-MW-19		1401		15.55	3.49			
GSP-MW-03		1402		34.75	3.50			
GSP-MW-06		1410		22.30	4.36			
GSP-MW-05		1411		39.30	5.78			
GSP-MW-08		1417		16.98	3.99			
GSP-MW-09		1419		19.71	6.80			
GSP-MW-07		1422		21.60	3.91			
GSP-MW-23I		1424		39.40	5.15			
GSP-MW-10		1426		21.30	3.21			
GSP-MW-11		1428		14.50	3.90			
GSP-MW-14		1450		11.55	3.15			
GSP-MW-15		1453		19.70	4.46			
GSP-MW-16		1455		30.00	5.00			
GSP-MW-21I		1457		59.91	8.40			
GSP-MW-22I		1501		59.25	8.87			
GSP-MW-12		1505		27.70	4.90			
GSP-MW-13		1507		22.55	3.80			
MT-MW-06S		1520		15.60	.85			
MT-MW-12S		1521		34.00	2.04			
MT-MW-11S		1522		44.45	2.35			
MT-MW-04S		1525		29.75	4.88			
MT-MW-10S		1527		39.75	11.40			

* All measurements to the nearest 0.01 foot

Tetra Tech

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: MSA GW 2018
Location: MSA
Weather Conditions: Sunny, 90°F
Tidally Influenced: Yes ___ No X

Project No.: 112ZC08424
Personnel: WP / JM
Measuring Device: WLM
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
MT-MW-09S	7/3/18	1530		49.40	7.56			
MT-MW-01S		1535		17.78	2.23			
MT-MW-08S		1537		34.85	9.85			
MT-MW-07S								Covered
MT-MW-02S				17.75	6.40			
MT-MW-03S		1555		29.00	Top of PVC			
MT-MW-05S		1557		24.62	5.50			

* All measurements to the nearest 0.01 foot

APPENDIX B—MONITORING-WELL PURGING AND SAMPLING RECORDS

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GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112JC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-1A-053018
Sample Location: DMW-1A
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/30/18								
Time: 1051								
Method: Peristaltic Pump	Clear	5.71	0.635	17.31	0.0	0.33	0.3	91

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/30/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 8.65		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0955								
End Purge (hrs): 1046								
Total Purge Time (min): ~~2.6~~ 51								
Total Vol. Purged (gal/L): 2.6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Hex Chrom	Ce6	1 - 125 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-1B-053018
Sample Location: DMW-1B
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/30/18								
Time: 1208								
Method: Peristaltic pump	Clear	5.57	0.530	20.50	0.0	0.00	0.2	122

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/30/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 9.40				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1117								
End Purge (hrs): 1203								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: DMW-1S-053018
Sample Location: DMW-1S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/30/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0921								
Method: Peristaltic pump	clear	6.90	0.215	15.87	0.0	3.44	0.1	8

PURGE DATA:

Date: 5/30/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 7.51								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge Time: 0825								
End Purge Time: 0916								
Total Purge Time (min): 46								
Total Vol. Purged (gal) 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
Geo	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Hex Chrom	Ca6	1 - 125 ml Poly	

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Matt Re

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112TC08424

Sample ID No.: MSA-DMW-2A-061518
Sample Location: DMW-2A
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 6/15/18	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1410	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(ppt)	ORP
Method: low flow	clear	4.19	1.23	22.95	2.2	—	0.6	274

PURGE DATA:

Date: 6/15/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material								
Type: 2" PVC	See low flow purge sheet							
Total Well Depth (TD): —								
Static Water Level (WL): 20.25								
One Casing Volume(gal/L): —								
Start Purge (military): 1325								
End Purge (military): 1410								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE CONTAINER INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
Perchlorate	—	1-125 mL poly filtered	✓

COMMENTS / OBSERVATIONS:

Perchlorate filtered in field

QC Sample Collected:
MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112301/424

Sample ID No.: DMW-2B-061918
Sample Location: DMW-2B
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 6/19/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1435								
Method: Peristaltic pump	Clear	5.40	0.027	19.45	0.0	5.89	0.0	251

PURGE DATA

Date: 6/19/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 19.76			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 1344								
End Purge Time: 1430								
Total Purge Time (min): 46								
Total Well Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

DESCRIPTION/NOTES

MS / MSD Collected

MS/MSD Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: DMW-2S-061518
Sample Location: DMW-2S
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/15/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0855								
Method: Peristaltic pump	clear	6.25	1.52	17.32	0.5	0.00	0.8	72

PURGE DATA

Date: 6/14/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 20.40								
One Casing Volume(gal/L):			Data Sheet					
Start Purge Time: 0804								
End Purge Time: 0850								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Amber	
1,4 Dioxane	—	2 - 250 ml Amber	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Halo	H2SO4	2 - 250 ml Amber	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112SC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-3D-062118
Sample Location: DMW-3D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/21/18								
Time: 1050								
Method: Peristaltic pump	Clear	6.53	0.531	16.54	1.4	0.85	0.1	144

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/21/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow purge Data Sheet						
Total Well Depth (TD):								
Static Water Level (WL): 15.10								
One Casing Volume(gal/L):								
Start Purge (hrs): 0959								
End Purge (hrs): 1045								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total Metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Radium 224, 226, 228	HNO3	3 - 1L Poly	↓

OBSERVATIONS/NOTES

DATA APPROVAL

MS/MSD: —
Duplicate ID No.:
Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: Dmw-3I-062118
Sample Location: Dmw-3I
Sampled By: VP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/21/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0920								
Method: Peristaltic pump	Slight	6.88	0.266	16.61	23.8	2.53	0.1	144

PURGE DATA

Date: 6/21/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD):								
Static Water Level (WL): 15.13								
One Casing Volume(gal/L):								
Start Purge (hrs): 0829								
End Purge (hrs): 0915								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE CONTAINER, PRESERVATIVE

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Radium 224, 226, 228	~~HCl~~ HNO3	3 - 1L Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112Xc08424

Sample ID No.: DMW-3S-062118
Sample Location: DMW-3S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 6/21/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1305								
Method: Peristaltic pump	Clear	4.26	2.22	17.79	16.4	0.58	1.1	-263

PURGE DATA:

Date: 6/21/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	Low	Flow	purge		
Static Water Level (WL): 10.00								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge (hrs): 1129								
End Purge (hrs): 1366								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	XCS
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Haloacetic Acid	H2SO4	2 - 250 ml Ambers	
Hex Chrom	Cab	1 - 125 ml Poly	

QA/QC INFORMATION:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112Ic08424

Sample ID No.: OMW-40-062918
Sample Location: OMW-40
Sampled By: TAM
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 6/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(ppt)~~ pct	Other ORP
Time: 1035								
Method: low flow	Clear	4.19	0.451	28.89	8.04	2.47	0.5	300

PURGE DATA

Date: 6/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC	See low flow purge sheet							
Total Well Depth (TD): -								
Static Water Level (WL): 18.90								
One Casing Volume(gal/L): -								
Start Purge Time: 0945								
End Purge Time: 1030								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE PRESERVATION/PREPARATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	~~3~~ 3-40 mL vials	✓
1,4-dioxane	-	2-250 mL ambers	-
Total Metals	HNO3	1-500 mL poly	✓
Dissolved metals	HNO3	1-500 mL poly filtered	✓
Perchlorate	-	1-125 mL poly filtered	-

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

Sample ID No.: DMW-4I-062918
Sample Location: DMW-4I
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 6/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Time: 0925								
Method: low flow	clear	4.30	1.50	17.88	8.95	0.07	0.8	264

PURGE DATA

Date: 6/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): —	See low flow purge sheet							
Static Water Level (WL): 19.85								
One Casing Volume(gal/L): —								
Start Purge Time: 0840								
End Purge Time: 0925								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE CONTAINER INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
Perchlorate	—	1-125 mL poly filtered	✓
			—

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

JL

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 117ICOF424

Sample ID No.: DMW-45-062918
Sample Location: DMW-45
Sampled By: JAM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰) ppt	Other ORP
Time: 0813								
Method: low flow	clear	5.71	1.52	17.60	9.83	0.04	0.8	144

PURGE DATA

Date: 6/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): ~34'								
Static Water Level (WL): 16.51								
One Casing Volume(gal/L): —								
Start Purge Time: 0730								
End Purge Time: 0815								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
GRO	HCl	2-40 mL vials	✓
DRO	—	2-250 mL ambers	✓
Raw Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly Filtered	✓
1-4, Nitrate	—	2-250 mL ambers	✓

QUALITY CONTROL SAMPLES

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICU9424

Sample ID No.: DMW-MW-SZ-070118
Sample Location: DMW-SZ
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 7/10/18	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1120	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(‰)	ORP
Method: Peristaltic pump	Clear	3.02	0.934	19.57	9.4	6.28	NA	521

PURGE DATA

Date: 7/10/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 21.75				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge Time: 1029								
End Purge Time: 1115								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE CONTAINER INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-5S-071018
Sample Location: DMW-5S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/10/18								
Time: 0920								Unp
Method: Peristaltic pump	clear	5.28	1.57	17.98	6.4	3.44	NA	80

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/10/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 20.91			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 0829								
End Purge (hrs): 0915								
Total Purge Time (min): 46								
Total Vol. Purge (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3x3 - 40 ml VOA	YES
GRO	HCl	2x3 - 40 ml VOA	
DRO	—	2x3 - 250 ml Ambers	
1,4 Dioxane	—	2x3 - 250 ml Ambers	
Total metals	HNO3	1x3 - 500 ml Poly	
Diss metals	HNO3	1x3 - 500 ml Poly	
Haloacetic	H2SO4	2x3 - 250 ml Ambers	

OBSERVATIONS/NOTES:

MS/MSD Collected

Sample Abbreviation:
MS/MSD Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-6D.062018
Sample Location: DMW-6D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/20/18								
Time: 1100								
Method: Peristaltic pump	Clear	4.44	0.401	16.84	6.95	3.19	0.2	295

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/20/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 17.60				Data Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1009								
End Purge (hrs): 1055								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 7.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	

OBSERVATIONS/NOTES:

Duplicate/Duplicate:

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IG08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-6I-062018
Sample Location: DMW-6I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/20/18								
Time: 0915								
Method: Peristaltic pump		4.71	0.632	16.55	20.1	1.70	0.3	Orp 202

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/20/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 08	17.76	Data sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0809								
End Purge (hrs): 0910								
Total Purge Time (min): 61								
Total Vol. Purged (gal/L): 2.8								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Radium 224, 226, 228	HNO3	3 - 1L Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-6S 062014
Sample Location: DMW-6S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/20/14								
Time: 1235								
Method: Peristaltic pump	Clear	6.33	1.20	17.00	4.6	0.00	0.6	ORP -50

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/20/14								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 17.45			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1144								
End Purge (hrs): 1230								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - ~~250~~ 40 ml VOA	
DRO	-	2 - 250 ml Ambers	
1,4 Dioxane	-	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Hex. Chrom	Cr6	1 - 125 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-7D-053118
Sample Location: DMW-7D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other Gcp
Date: 5/31/18								
Time: 0950								
Method: Peristaltic pump	Clear	4.65	0.120	15.92	0.0	1.88	0.1	346

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/31/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 19.63			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0859								
End Purge (hrs): 0945								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Manlius State Airport
Project No.: 112I 009424

Sample ID No.: DMW-7I-053168
Sample Location: DMW-7I
Sampled By: VP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 5/31/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0835								
Method: Peristaltic pump	Clear	3.96	1.24	15.97	0.0	0.32	0.6	275

PURGE DATA

Date: 5/31/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 19.80				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0744								
End Purge (hrs): 0830								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Amber	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	

QUALITY ASSURANCE/QUALITY CONTROL

MS/MSD | Duplicate ID No.:

Signature(s): Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FCO 8424

Sample ID No.: DMW-75-053118
Sample Location: DMW-75
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/31/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1201								
Method: Peristaltic pump	Clear	5.97	1.67	15.93	0.8	0.00	0.8	42

PURGE DATA

Date: 5/31/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 19.45								
One Casing Volume(gal/L):								
Start Purge Time: 1110								
End Purge Time: 1156								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL

MS/MSD | Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-9I-061918
Sample Location: DMW-9I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/19/18								
Time: 1045								
Method: Peristaltic pump	clear	4.69	0.820	19.42	0.0	12.95	0.4	

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/19/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 13.30			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0954								
End Purge (hrs): 1040								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss. metals	HNO3	1 - 500 ml Poly	
Hex Chrom	CrG	1 - 125 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-9D-060418
Sample Location: DMW-9D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/4/18								
Time: 1103								
Method: Peristaltic pump	Clear	4.86	0.298	15.35	67.4	0.00	0.1	154

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/4/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 8.45				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1012								
End Purge (hrs): 1058								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	1 —	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
N/A			↓

OBSERVATIONS/NOTES:

Ferrous Iron 3.0 mg/L

Code (if applicable):

MS/MSD	Duplicate ID No.:	Signature(s):
		Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-9I-060418
Sample Location: DMW-9I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/4/18								
Time: 0933								
Method: Peristaltic pump	Clear	5.82	1.01	15.46	0.0	1.60	0.5	80

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/4/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 6.75								
One Casing Volume(gal/L):				Data	Sheet			
Start Purge (hrs): 0827								
End Purge (hrs): 0828								
Total Purge Time (min): 61								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
MEE	HCl	3 - 40 ml VOA	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Alk	—	1 - 250 ml Poly	
Total Select metals	HNO3	1 - 500 ml Poly	
Ammonia	H2SO4	1 - 500 ml Poly	
Nitrate, Nitrite Calcd	—	1 - 500 ml Poly	
Chloride, sulfate	—		

OBSERVATIONS/NOTES:

Ferrous Iron 4.0 Mg/L

Code Supplement:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: DMW-95-060418
Sample Location: DMW-95
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 6/4/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1425								
Method: Peristaltic pump	Clear	6.47	1.16	18.09	0.0	0.00	0.6	-92

PURGE DATA:

Date: 6/4/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.30			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 1334								
End Purge Time: 1420								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE PRESERVATION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
N/A			

OTHER OBSERVATIONS:

Ferrous Iron 3.0 mg/L

MS/MSD: —
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112EC08424

Sample ID No.: DMW-10I-052419
Sample Location: DMW-10I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/24/19	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1059								
Method: Peristaltic pump	Clear	6.13	0.174	17.45	7.5	3.03	0.1	116

PURGE DATA:

Date: 5/24/19	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC				See Low Flow Purge Data Sheet				
Total Well Depth (TD):								
Static Water Level (WL): 0948	7.45							
One Casing Volume(gal/L):								
Start Purge (hrs): 0944								
End Purge (hrs): 1054								
Total Purge Time (min): 65								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Mutin State Airport
Project No.: 112EC08424

Sample ID No.: MSDMW-MW-10S-052418
Sample Location: DMW-10S
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/24/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0914								
Method: Peristaltic pump	Clear	6.63	1.18	18.92	0.0	0.00	0.6	-80

PURGE DATA:

Date: 5/24/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 6.72								
One Casing Volume(gal/L):								
Start Purge (hrs): 0823								
End Purge (hrs): 0909								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

See Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	
DRO	-	2 - 250 ml Ambers	
1,4 Dioxane	-	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-11I-060818
Sample Location: DMW-11I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/8/18								
Time: 1200								
Method: Peristaltic pump	Clear	4.89	0.025	16.08	0.0	0.00	0.0	225

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/8/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 6.02		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 1109								
End Purge (hrs): 1155								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ZCO 8424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-11S-060818
Sample Location: DMW-11S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/8/18								
Time: 0935								ORP
Method: Peristaltic pump	Clear	6.28	0.525	15.04	0.0	0.00	0.3	-39

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/8/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 3.30				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0844								
End Purge (hrs): 0930								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
N/A	HNO3/H2SO4, HCl	7	

OBSERVATIONS/NOTES:

Ferrous Iron 3.0 mg/L

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC09421

Sample ID No.: MSA-MW-3-052918
Sample Location: MW-3
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 5/29/18								
Time: 0909								
Method: Peristaltic pump	clear	6.65	0.088	16.62	0.0	2.85	0.0	-52

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/29/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.37			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 0818								
End Purge Time: 0904								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 1.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 250 ml Ambers VIA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112BC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW4-051518
Sample Location: MW-4
Sampled By: VP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/15/18								
Time: 1521								
Method: Peristaltic pump	Clear	7.09	1.27	23.04	2.5	0.00	0.6	ORP -114

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/15/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 3.60								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge (hrs): 1430								
End Purge (hrs): 1516								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES:

Duplicate Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Machias State Airport
Project No.: 112BC08424

Sample ID No.: MSA-MW-5-053118
Sample Location: MW-5
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/31/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1451								
Method: Peristaltic pump	Clear	6.86	1.78	16.34	0.0	0.00	0.9	-101

PURGE DATA:

Date: 5/31/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):		See low flow purge						
Static Water Level (WL): 20.35								
One Casing Volume(gal/L):			Data Sheet					
Start Purge (Time): 1400								
End Purge (Time): 1446								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L) 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
1,4 Dioxane	—	2 - 250 ml Ambers	

OBSERVATIONS / NOTES:

QC Sample Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112SC08424

Sample ID No.: MSA-MW-6-060618
Sample Location: MW-6
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 6/14/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Time: 1135								
Method: low flow	clear	5.62	0.502	14.31	9.85	0.20	0.4	36

PURGE DATA:

Date: 6/14/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 13.27								
One Casing Volume(gal/L): →								
Start Purge Time: 1050								
End Purge Time: 1135								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE DESCRIPTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL VOCs	✓
1,4 dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved metals	HNO3	1-500 mL poly filtered	✓
GRO	HCl	2-40 mL VOCs	✓
DRO	—	2-250 mL ambers	✓

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Meeting State Airport
Project No.: 112JC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-14D-062218
Sample Location: MW-14D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/22/18								
Time: 0905								ORP
Method: Peristaltic pump	Clear	11.82	0.409	16.52	2.2	0.00	0.2	-86

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/22/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 6.62		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0814								
End Purge (hrs): 0900								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Hex Chrom	CR6	1 - 125 ml Poly	↓

OBSERVATIONS/NOTES:

Duplicate Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Will P

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GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-14I-062218
Sample Location: MW-14I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/22/18								
Time: 1010								ORP
Method: Peristaltic pump	Clean	6.27	1.38	15.89	9.51	0.00	0.7	-59

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/22/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 1040		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0919								
End Purge (hrs): 1005								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane		2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		Walt P[illegible]

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GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-15D-052518
Sample Location: MW-15D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/25/18								
Time: 1336								
Method: Peristaltic pump	Clear	5.07	0.022	21.37	0.0	0.35	0.0	255

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/25/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 4.25				Data sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1245								
End Purge (hrs): 1331								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
✓		Wall P

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GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICO8424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-15I-052518
Sample Location: MW-15I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/25/18								
Time: 1158								ORP
Method: Peristaltic pump	Clear	7.17	0.222	21.25	0.0	0.00	0.0	-63

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/25/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 4.20			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1107								
End Purge (hrs): 1153								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓

OBSERVATIONS/NOTES:

Quote & Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-16D-070218
Sample Location: DMW-16D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/2/18								
Time: 0900								
Method: Peristaltic pump	Clear	4.00	0.015	17.53	0.0	3.92	NA	319

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 7.90		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0809								
End Purge (hrs): 0855								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CR6	1 - 125 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-16I-070218
Sample Location: DMW-16I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/2/18								
Time: 1026								
Method: Peristaltic pump	Clear	4.30	0.062	17.95	0.0	3.39	NA	219

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.72				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0935								
End Purge (hrs): 1021								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Radium 224, 226, 228	HNO3	3 - 1L Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ECW8424

Sample ID No.: DMW-16S-070218
Sample Location: DMW-16S
Sampled By: VP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 7/2/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1140								
Method: Peristaltic pump	Clear	6.39	1.35	19.23	0.0	3.06	NA	-84

PURGE DATA

Date: 7/2/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):		See	low	flow	purge			
Static Water Level (WL): 8.82								
One Casing Volume(gal/ft):			Data	Sheet				
Start Purge Time: 1049								
End Purge Time: 1135								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE PRESERVATION AND PACKAGING

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	

QUALITY CONTROL SAMPLES

MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-17D-070218
Sample Location: DMW-17D
Sampled By: VP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/2/18								
Time: 1405								
Method: Peristaltic pump	Clear	6.06	0.041	23.31	0.0	2.44	NA	-88

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 3.35				Data Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1229								
End Purge (hrs): 1400								
Total Purge Time (min): 91								
Total Vol. Purge (gal): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Hex Chrom	CR6	1 - 125 ml Poly	yes

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-17I-070518
Sample Location: DMW-17I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/5/18								ORP
Time: 1014								
Method: Peristaltic pump	Clear	4.86	0.052	24.10	0.0	2.39	NA	54

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/5/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 5.82				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0923								
End Purge (hrs): 1009								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3x3 - 40 ml VOA	YES
1,4 Dioxane	—	3x2 - 250 ml Ambers	↓
Total metals	HNO3	3x1 - 500 ml Poly	↓
Diss metals	HNO3	3x1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓

OBSERVATIONS/NOTES

MS/MSD collected

Duplicate Information

MS/MSD | Duplicate ID No.:

Signature(s): Walt [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Marion State Airport
Project No.: 112FC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: DMW-17S-070518
Sample Location: DMW-17S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/5/18								
Time: 0900								ORP
Method: Peristaltic pump	clear	6.13	0.227	18.88	0.0	3.40	NA	-95

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/5/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.50				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0809								
End Purge (hrs): 0855								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
BRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES

CHAIN OF CUSTODY

MS/MSD: —
Duplicate ID No.: —
Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-18I-070918
Sample Location: MW-18I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/9/18								
Time: 0926								
Method: Peristaltic pump	Clear	6.29	3.13	19.66	9.04	3.67	NA	ORP -66

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/9/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD):								
Static Water Level (WL): 9.20								
One Casing Volume(gal/L):								
Start Purge Time: 0845								
End Purge Time: 0931								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 1.5								

SAMPLING INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
NAA	—	9 -	

OBSERVATIONS/NOTES

QA/QC INFORMATION

Filtered: ~~Yes~~ No
Duplicate ID No.:

Signature(s):
Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-18S-020718
Sample Location: MW-18S
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 7/8/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰)	Other ORP
Time: 1200								
Method: Peristaltic pump	Slightly	6.51	0.915	24.60	49.6	2.96	NA	-39

PURGE DATA

Date: 7/9/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See Low Flow purge Data Sheet					
Static Water Level (WL): 10.20								
One Casing Volume(gal/L):								
Start Purge Time: 1020								
End Purge Time: 1151								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 2.5								

SAMPLE CONTAINER/PRESERVATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Dissolved metals	HNO3	1 - 500 ml Poly	
NAA	—	9-	

OTHER OBSERVATIONS

Ferrous Iron 3.0 mg/L

QA/QC SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FC08424

Sample ID No.: MSA-MW-19D-053018
Sample Location: MW-19D
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 5/30/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1435								
Method: Peristaltic pump	Clear	4.67	0.519	19.36	0.0	0.00	0.3	250

PURGE DATA

Date: 5/30/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 5.45				Data Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 1344								
End Purge (hrs): 1430								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3x3 - 40 ml VOA	YES
1,4 Dioxane	—	3x2 - 250 ml Ambers	|
Total metals	HNO3	3x1 - 500 ml Poly	|
Diss metals	HNO3	3x1 - 500 ml Poly	↓

MS / MSD Collected

Duplicate Collected: (YES) NO
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112G08424

Sample ID No.: MSA-MW-20D-051618
Sample Location: MW-20D
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/16/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1453								
Method: Peristaltic pump	Clean	4.58	0.268	17.67	0.1	4.36	0.1	413

PURGE DATA:

Date: 5/16/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD):								
Static Water Level (WL): 9.10								
One Casing Volume(gal/L):								
Start Purge (hrs): 1402								
End Purge (hrs): 1448								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Amber	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-20I-050618
Sample Location: MW-20I
Sampled By: WD
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/16/18								
Time: 1210								ORP
Method: Peristaltic pump	Clear	7.65	0.202	21.22	6.6	14.15	0.1	112

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/16/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):		see low flow purge						
Static Water Level (WL): 7.30								
One Casing Volume(gal/L):		Data sheet						
Start Purge (hrs): 1114								
End Purge (hrs): 1205								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-20S-051618
Sample Location: MW-20S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/16/18								
Time: 1102								ORP
Method: Peristaltic pump	clear	7.55	0.195	19.10	5.0	19.01	0.1	-42

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/16/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.40			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge (hrs): 0926								
End Purge (hrs): 1052								
Total Purge Time (min): 85								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	↓
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total Metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112BC08424

Sample ID No.: MSA-MW-210-052418
Sample Location: MW-210
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/24/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1501								
Method: Peristaltic pump	Cloudy	6.50	0.099	22.05	48.8	0.00	0.0	42

PURGE DATA

Date: 5/24/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 9.25				Data	sheet			
One Casing Volume(gal/L):								
Start Purge Time: 1400								
End Purge Time: 1456								
Total Purge Time (min): 56								
Total Vol. Purged (gal): 2.8								

SAMPLE COLLECTION INFORMATION

Analyte	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 ml VOA	Yes
1,4 Dioxane	—	2-250 ml Ambers	↓
Total metals	HNO3	1-500 ml Poly	↓
Diss metals	HNO3	1-500 ml Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD: —
Duplicate ID No.: —

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-21I-052418
Sample Location: MW-21I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/24/18								
Time: 1225								orp
Method: Peristaltic pump	Clear	6.39	0.499	26-26	0.0	0.00	0.3	-19

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/24/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.70				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1134								
End Purge (hrs): 1220								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-22D-052118
Sample Location: MW-22D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/21/18								
Time: 0958								orp
Method: Peristaltic pump	Clear	6.71	0.116	21.85	0.0	2.88	0.1	0.1

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/21/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0-0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.95				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0907								
End Purge (hrs): 0953								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3x3 - 40 ml VOA	YES
1,4 Dioxane	—	3x2 250 ml Ambers	
Total metals	HNO3	3x1 500 ml Poly	
Diss metals	HNO3	3x1 500 ml Poly	

OBSERVATIONS / NOTES:

MS/MSD collected

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC09424

Sample ID No.: MSA-MW-23D-052218
Sample Location: MW-23D
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰)	Other
Date: 5/22/18								
Time: 1031								
Method: Peristaltic pump	Clear	6.03	6.110	16.65	0.0	0.00	0.1	ORP 17

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/22/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SRC low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 7.35			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0940								
End Purge (hrs): 1026								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Amber	↓
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-23S-052218
Sample Location: MW-23S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/22/18								
Time: 0815								ORP
Method: Peristaltic pump	Clear	6.76	0.521	15.69	0.0	0.00	0.3	-102

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/22/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 6.35			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0724								
End Purge (hrs): 0810								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	~~GRO~~ HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-24I-052318
Sample Location: MW-24I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 5/23/18								
Time: 1006								
Method: Peristaltic pump	Clear	4.22	0.042	16.24	0.0	7.20	0.0	394

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/23/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD):								
Static Water Level (WL): 4.05								
One Casing Volume(gal/L):								
Start Purge (hrs): 0915								
End Purge (hrs): 1001								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	|
Total metals	HNO3	1 - 500 ml Poly	|
Diss metals	HNO3	1 - 500 ml Poly	|
Perchlorate	—	1 - 250 ml Poly	L

OBSERVATIONS / NOTES:

Codes if Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Walt Pz

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC09424

Sample ID No.: MSA-MW-24S-052318
Sample Location: MW-24S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/23/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0822								
Method: Peristaltic pump	Clear	4.08	2.40	16.40	0.0	0.04	1.2	222

PURGE DATA:

Date: 5/23/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low flow purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 3.45								
One Casing Volume(gal/L):								
Start Purge (hrs): 0731								
End Purge (hrs): 0817								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	↓
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ZC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-25I-051518
Sample Location: MW-25I
Sampled By: VP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/15/18								
Time: 1129								
Method: Peristaltic pump	Clean	6.85	0.184	16.60	9.02	0.00	0.1	ORP -61

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/15/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.20				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1038								
End Purge (hrs): 1124								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
✓		Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FC08424

Sample ID No.: MSA-MW-25S-050518
Sample Location: MW-25S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/15/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1013								
Method: Peristaltic pump	clear	6.49	0.170	16.61	1.4	1.65	0.1	ORP

PURGE DATA

Date: 5/15/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	Low	Flow	Purge		
Total Well Depth (TD):								
Static Water Level (WL): 4.80			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 0917								
End Purge Time: 1008								
Total Purge Time (min): 51								
Total Vol. Purged (gal/L): 1.7								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-26S-052118
Sample Location: MW-26S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/21/18								
Time: 1149								
Method: Peristaltic pump	Clear	7.01	0.264	21.46	6.22	1.94	0.1	109

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/21/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): ~~1058~~	6.10							
One Casing Volume(gal/L):				Data sheet				
Start Purge (hrs): 1058								
End Purge (hrs): 1144								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS (NOTES):

Duplicate (Applicable):

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Wade R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: ~~Drum~~ MSA-MW-27D-061918
Sample Location: MSA-MW-27D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/19/18								
Time: 1205								ORP
Method: Peristaltic pump	Clear	5.00	0.016	17.84	0.0	0.70	0.0	281

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/19/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):		See low flow purge						
Static Water Level (WL): 1.75								
One Casing Volume(gal/L):		Data Sheet						
Start Purge (hrs): 1114								
End Purge (hrs): 1200								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CrG	1 - 125 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112G08424

Sample ID No.: MSA-MW-290-071818
Sample Location: MW-290
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 7/9/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰)	Other ORP
Time: 1452								
Method: Peristaltic Pump	Clear	4.41	0.008	18.57	2.3	7.12	NA	304

PURGE DATA:

Date: 7/9/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			SEE	low flow	purge			
Static Water Level (WL): 8.00				Data	Sheet			
Pre Casing Volume(gal/L):								
Start Purge Intl: 1359								
End Purge Intl: 1445								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLES COLLECTED/PARAMETERS:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Radium 224, 226, 228	HNO3	3 - 1L Poly	↓

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Wall R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112P109424

Sample ID No.: MSA-MW-30D-062014
Sample Location: MW-30D
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/20/14 Time: 1432	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Method: Peristaltic pump	Clear	4.89	0.015	15.96	0.0	12.97	0.0	ORP 244

PURGE DATA:

Date: 6/20/14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 3.80			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 1341								
End Purge Time: 1427								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.25								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Amber	↓
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CR6	1 - 125 ml Poly	

QUALITY CONTROL SAMPLE INFORMATION:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICU6424

Sample ID No.: MSA-MW-30I-052318
Sample Location: MW-30I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/23/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other dup
Time: 1155								
Method: Peristaltic pump	Clear	6.52	0.157	19.49	0.0	0.18	0.1	99

PURGE DATA:

Date: 5/23/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		Stk low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 4.23			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1104								
End Purge (hrs): 1150								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Quality Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112PC08424

Sample ID No.: MSA-MW-31D-062218
Sample Location: MW-31D
Sampled By: WP
C.O.C. No.:

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

SAMPLING DATA

Date: 6/22/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1451								
Method: Peristaltic pump	Clear	6.59	0.168	15.61	0.0	0.00	0.1	-92

PURGE DATA

Date: 6/22/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD):								
Static Water Level (WL): 3.20								
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1446								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLING INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total Metals	HNO3	1 - 500 ml Poly	
Diss. metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	Cc6	1 - 125 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112FC08424

Sample ID No.: MSA-MW-32I-060816
Sample Location: MW-32I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/8/16	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1305								
Method: Peristaltic pump	Clear	6.99	0.155	16.45	4.4	0.00	0.1	-142

PURGE DATA:

Date: 6/8/16	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 5.20		Data sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 1224								
End Purge (hrs): 1310								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Circle if Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 1122C08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-32S-060818
Sample Location: MW-32S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/9/18								ORP
Time: 1451								
Method: Peristaltic pump	Clear	6.90	0.362	16.71	1.3	0.00	0.2	-146

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/8/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 15.10				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1446								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-33I-052518
Sample Location: MW-33I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/25/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other orp
Time: 0951								
Method: Peristaltic pump	Clear	7.87	0.164	15.94	0.0	4.05	0.1	13

PURGE DATA

Date: 5/25/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow Purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 6.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 0900								
End Purge (hrs): 0946								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Hex Chrom (Field Filtered)	—	1 - 125 ml Poly	

USER NOTES/MISC.

QA/QC Sample Info:

Matrix	Duplicate ID No.:	Signature(s):
—		Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Manton State Airport
Project No.: 112EC08424

Sample ID No.: MSA-MW-335-052418
Sample Location: MW-335
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/25/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other dep
Time: 0823								
Method: Peristaltic pump	Clear	5.45	0.117	14.35	0.0	0.00	0.1	85

PURGE DATA:

Date: 5/25/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 6.55			Data Sheet					
One Casing Volume(gal/L):								
Start Purge Time: 0732								
End Purge Time: 0818								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.3								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	VCS
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

USER NOTES/COMMENTS:

Duplicate Sample Taken:
YES / NO Duplicate ID No.:

Signature(s):
Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NSA GW 2018
Project No.: 117-1C08424

Sample ID No.: MSA-MW-34I-061818
Sample Location: MW-34I
Sampled By: JAF
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/15/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Time: 1135								
Method: low flow	clear	4.75	0.116	22.05	4.25	0.00	0.1	241

PURGE DATA

Date: 6/15/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 4.09								
One Casing Volume(gal/L): —								
Start Purge (hr): 1050								
End Purge (hr): 1135								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE CONTAINER INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL amber	✓
Total Metals	HNO_3	1-500 mL poly	✓
Dissolved Metals	HNO_3	1-500 mL poly (filtered)	✓

COMMENTS

Well buried under gravel, approx. 30 mins of digging time

QC SAMPLES COLLECTED

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 117IC08424

Sample ID No.: MSA-MW-345-061518
Sample Location: MW-345
Sampled By: TAM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/15/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Time: 1030								
Method: low flow	clear	5.48	2114	21.75	5.65	0.00	0.1	-18

PURGE DATA:

Date: 6/15/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): —		See low flow purge sheet						
Static Water Level (WL): 4.01								
One Casing Volume(gal/L): —								
Start Purge Time: 0945								
End Purge Time: 1030								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE CONTAINER INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	—
Dissolved Metals	HNO3	1-500 mL poly (filtered)	—
GRO	HCl	2-40 mL vials	—
DRO	—	2-250 mL ambers	✓

COMMENTS/OBSERVATIONS:

Well buried under gravel, approx 30 mins of digging time to locate well.

QC Sample Collected:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112COB424

Sample ID No.: MSA-MW-353-051418
Sample Location: MW-353
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/14/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1528								
Method: Peristaltic pump	Clear	4.21	0.131	17.97	0.0	0.00	0.1	317

PURGE DATA

Date: 5/14/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC				See low flow purge				
Total Well Depth (TD):								
Static Water Level (WL): 8.55				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1352								
End Purge (hrs): 1523								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-36S-051418
Sample Location: MW-36S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/14/18								
Time:								
Method: Peristaltic pump	Clear	4.90	0.059	13.74	2.0	5.40	0.0	297

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/14/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			see	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.32				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 0920								
End Purge (hrs): 1006								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112C09424

Sample ID No.: MSA-MW-37S-05-1418
Sample Location: MW-37S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/14/18 Time: 1640	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Method: Peristaltic Pump	Clear	5.84	0.192	17.84	7.54	1.22	0.1	119

PURGE DATA:

Date: 5/14/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.40				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1049								
End Purge (hrs): 1135								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 7.0								

SAMPLE PRESERVATION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

COMMENTS/OBSERVATIONS:

QC SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-38s-071018
Sample Location: MW-38s
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 7/10/18								
Time: 1435								
Method: Peristaltic pump	clear	5.33	0.169	19.55	0.0	3.33	NA	52

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/10/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material								
Type: 2" PVC		See low flow purge						
Total Well Depth (TD): 21.30								
Static Water Level (WL): 7.85		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 1344								
End Purge (hrs): 1430								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
Gro	HCl	2 - 40 ml VOA	
Dro	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

DESCRIPTIONS/NOTES

Order Information

MS/MSD	Duplicate ID No.:	Signature(s):
—		[signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-395-070218
Sample Location: MW-395
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other ORP
Date: 7/2/18								
Time: 0925								
Method: low flow	clear	6.31	0.510	16.58	7.25	0.00	0.2	-23

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: low flow								
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC		SEE LOW FLOW PURGE DATA SHEETS						
Total Well Depth (TD): –								
Static Water Level (WL): 12.58								
One Casing Volume(gal/L): –								
Start Purge (hrs): 0840								
End Purge (hrs): 0925								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
GRO	HCl	2-40 mL vials	✓
DRO	–	2-250 mL ambers	✓
1,4-dioxane	–	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Diss Metals	HNO3	1-500 mL poly	✓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		[signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-40I-061418
Sample Location: MW-40I
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other
Date: 6/14/18								
Time: 1345								ORP
Method: low flow	Clear	5.42	1.22	17.02	2.82	0.00	0.6	143

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/14/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC	See low flow purge sheet							
Total Well Depth (TD): —								
Static Water Level (WL): 15.25								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1255								
End Purge (hrs): 1340								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL glass vials	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
1,4-dioxane	—	2-250 mL amber	✓

OBSERVATIONS/NOTES:

Duplicate Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08928

Sample ID No.: MSA-MW-405-061418
Sample Location: MW-405
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[x] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[x] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

Date: 6/14/18	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1240	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(‰) ppt	ORP
Method: low flow	clear	6.58	1.22	14.48	7.00	0.00	0.6	5

PURGE DATA:

Date: 6/14/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data Sheet						
Total Well Depth (TD): ~28'								
Static Water Level (WL): 11.75								
One Casing Volume(gal/L): —								
Start Purge (military): 1155								
End Purge (military): 1240								
Total Purge Time (min): 45 min								
Total Vol. Purged (gal/L): ~2								

SAMPLE CONTAINER INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL glass vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
DRO	—	2-250 mL ambers	✓
GRO	HCl	2-40 mL glass vials	✓

QC SAMPLE INFORMATION:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112C08424

Sample ID No.: MSA-MW-41I-05222018
Sample Location: MW-41I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/22/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1450								
Method: Peristaltic pump	Clear	5.85	0.808	16.15	0.0	0.00	0.3	58

PURGE DATA

Date: 5/22/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):				Data	Sheet			
Static Water Level (WL): 6.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 1359								
End Purge (hrs): 1445								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS / NOTES

Quality Applicable:
MS/MSD
Duplicate ID No.:

Signature(s):
Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112C08424

Sample ID No.: MSA-MW-415-052218
Sample Location: MW-415
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/22/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1226								
Method: Peristaltic pump	clear	5.85	0.673	14.80	0.0	0.00	0.3	171

PURGE DATA:

Date: 5/22/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SEE	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.70				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1135								
End Purge (hrs): 1221								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS / NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Walt Pray

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICo8424

Sample ID No.: MSA-MW-42I-052118
Sample Location: MW-42I
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/21/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1614								crp
Method: Peristaltic pump	clear	6.33	0.230	21.28	0.0	0.59	0.1	-4

PURGE DATA:

Date: 5/21/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge Data Sheet					
Total Well Depth (TD):								
Static Water Level (WL): 5.55								
One Casing Volume(gal/L):								
Start Purge (hrs): 1520								
End Purge (hrs): 1606								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.8								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	4CS
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

COMMENTS/NOTES:

QC Sample Applicable:

MS/MSD	Duplicate ID No.:
←	

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112BC08424

Sample ID No.: MSA-MW42S-052118
Sample Location: MW-42S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 5/21/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: ~~1328~~ 1433								
Method: Peristaltic pump	Clear	6.20	0.349	16.66	1.0	2.66	0.2	-87

PURGE DATA:

Date: 5/21/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge Data sheet						
Total Well Depth (TD):								
Static Water Level (WL): 5.05								
One Casing Volume(gal/L):								
Start Purge (hrs): 1347								
End Purge (hrs): 1433								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
Gas	HCl	2 - 40 ml VOA	|
Alc	—	2 - 250 ml Ambers	|
1,4 Dioxane	—	2 - 250 ml Ambers	|
Total metals	HNO3	1 - 500 ml Poly	|
Diss metals	HNO3	1 - 500 ml Poly	V

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112G05824

Sample ID No.: MSA-MW-435-070218
Sample Location: 7/2/18 MW-435
Sampled By: JAC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 7/2/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰) ppt	Other ORP
Time: 1035								
Method: low flow	clear	6.86	0.610	22.58	2.50	0.09	0.31	-45

PURGE DATA

Date: 7/2/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): -		See low flow purge sheet						
Static Water Level (WL): 12.55								
One Casing Volume(gal/L): -								
Start Purge (hrs): 0950								
End Purge (hrs): 1035								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE PRESERVATION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4 dioxane	—	2-250 mL ambers	✓
BAO	HCl	2-40 mL vials	✓
ORO	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Diss. Metals	HNO3	1-500 mL poly (filtered)	✓

OBSERVATIONS / NOTES:

QA/QC SAMPLES: MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IL08444

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-445-061518
Sample Location: 6/15/18
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other ORP
Date: 6/15/18								
Time: 1300								
Method: low flow	Clear	6.72	3.92	20.90	4.01	0.00	1.8	-82

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/15/18								
Method: low flow								
Monitor Reading (ppm): –								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): –								
Static Water Level (WL): 1.35								
One Casing Volume(gal/L): –								
Start Purge (hrs): 1215								
End Purge (hrs): 1300								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved metals	HNO3	1-500 mL poly filtered	✓
GRO	HCl	2-40 mL vials	✓
DRO	—	2-250 mL ambers	✓

OBSERVATIONS/NOTES:

Quote & Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-45S-052318
Sample Location: MW-45S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/23/18								
Time: 1450								ORP
Method: Peristaltic pump	Clear	6.30	1.76	22.87	0.0	0.00	0.9	199

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/23/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 6.97			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1355								
End Purge (hrs): 1445								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA-GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-46D-062618
Sample Location: MW-46D
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other ORP
Date: 6/28/18								
Time: 1320								
Method: low flow	Clear	6.40	0.078	18.28	2.03	0.00	0.0	52

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 9.70								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1235								
End Purge (hrs): 1320								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	7-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Perchlorate	—	1-125 mL poly filtered	✓
Hex Chrom	Buffer	1-250 mL poly filtered	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓

DESCRIPTIONS/NOTES:

ALS Hex Chrom

Quote & Application:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-46I-062818
Sample Location: ~~6/28/18~~ MW-46I
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other DRP
Date: 6/28/18								
Time: 1140								
Method: low flow	clear	5.60	0.592	17.76	1.78	9.00	0.3	150

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/18								
Method: low flow								
Monitor Reading (ppm): ~								
Well Casing Diameter & Material		See low flow purge data sheet						
Type: 2" PVC								
Total Well Depth (TD): –								
Static Water Level (WL): 8.99								
One Casing Volume(gal/L): –								
Start Purge (hrs): 1055								
End Purge (hrs): 1140								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-Dioxane	–	2-250 mL ambers	✓
Perchlorate	–	1-125 mL poly filtered	✓
Hex Chrome	Buffer	1-250 mL poly filtered	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓

OBSERVATIONS NOTES:

Hex Chrom to ALS

Quote Supplemental:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: ~~H2ICO~~ MSA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-465-062818
Sample Location: MW-465
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ppt	Other ORP
Date: 6/28/18								
Time: 1035								
Method: low flow	clear	6.15	0.688	18.16	6.94	0.00	0.3	89

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 8.58								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0950								
End Purge (hrs): 1035								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
WCS	HCl	3-40 mL vials	✓
GRO	HCl	2-40 mL vials	✓
DRO	–	2-250 mL ambers	✓
1-4, dioxane	–	2-250 mL ambers	✓
Perchlorate	–	1-125 mL poly filtered	✓
Hex Chrom	Buffer	2-250 mL poly filtered	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓

OBSERVATIONS/NOTES:

Hex Chrom to ALS

Quality Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

Sample ID No.: MSA-MW-470-062718
Sample Location: MW-470
Sampled By: JAM
C.O.C. No.:
Type of Sample:
- [x] Low Concentration
- [ ] High Concentration

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

SAMPLING DATA

Date: 6/27/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰) ppt	Other ORP
Time: 1245								
Method: low flow	Clear	5.90	2128	18.38	2.00	0.50	0.1	45

PURGE DATA

Date: 6/27/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC	See low flow purge data sheet							
Total Well Depth (TD): —								
Static Water Level (WL): 10.03								
One Casing Volume(gal/ft): —								
Start Purge (hrs): 1155								
End Purge (hrs): 1240								
Total Purge Time (min): 45								
Total Vol. Purged (gal): ~2								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
Hex Chrom	Buffer	1-250 mL poly filtered	✓
Perchlorate	—	1-125mL poly filtered	✓

OTHER INFORMATION

ALS Hex Chrom

QUALITY CONTROL

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112-108424

Sample ID No.: MSA-MW-47I-062718
Sample Location: MW-47I
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA

Date: 6/27/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (‰) ppt	Other ORP
Time: 1100								
Method: low flow	clear, odor	6.65	1.82	19.42	11.85	0.00	0.9	51

PURGE DATA

Date: 6/27/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 9.80								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1010								
End Purge (hrs): 1100								
Total Purge Time (min): 50								
Total Vol. Purged (gal/L): ~2								

SAMPLE PRESERVATION/PREPARATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
Perchlorate	—	1-125 mL poly filtered	✓
Hex Chrom	Buffer	1-250 mL poly filtered	✓

USER QA/QC SAMPLES

Hex Chrom to ALS

QA/QC SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112G08424

Sample ID No.: MSA-MW-475-062718
Sample Location: MW-475
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Date: 6/27/18								
Time: 0940								
Method: Low flow	clear color	6.43	1.77	19.68	1.01	0.00	0.9	-36

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/27/18								
Method: low flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data Sheet						
Total Well Depth (TD): -								
Static Water Level (WL): 9.77								
One Casing Volume(gal/L): -								
Start Purge Time: 0855								
End Purge Time: 0940								
Total Purge Time (min): 45								
Total Vol. Purged (gal): ~2								

SAMPLE CONTAINER INFORMATION:

Analyte	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	-	2-250 mL ambers	✓
Total metals	HNO3	1-500 mL poly	✓
Dissolved metals	HNO3	1-500 mL poly filtered	✓
Perchlorate	-	1-125 mL poly filtered	✓
Hex Chrom	Buffer	1-250 mL poly filtered	✓
TPH-DRO	-	2-250 mL ambers	✓
TPH-GRO	HCl	2-40 mL vials	✓

USER COMMENTS:

Hex Chrome to ALS

QA/QC INFORMATION:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-48D-062918
Sample Location: MW-48D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/29/18								
Time: 0850								
Method: Peristaltic pump	Clear	4.19	0.489	17.39	0.0	3.19	NA	273

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/29/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC.		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 18.65		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0759								
End Purge (hrs): 0845								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CR6	1 - 125 ml Poly	
NAA	—	9	

OBSERVATIONS/NOTES

Ferrous Iron 0.0 mg/L

Quality Applicable:

MS/MSD	Duplicate ID No.:
—	

Signature(s): Walt [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112EC08424

Sample ID No.: MSA-MW-48I-062518
Sample Location: MW-48I
Sampled By: VP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1121								
Method: Peristaltic pump	clear	5.61	0.806	18.51	0.0	2.52	NA	21

PURGE DATA

Date: 6/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 18.40								
One Casing Volume(gal/L):				Data	Sheet			
Start Purge Time: 1030								
End Purge Time: 1116								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml	
Gao	HCl	2 -	
DRO	—	2 -	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CRL	1 - 125 ml Poly	
NAA	—	9 -	

Ferrous IRON 3.5 mg/L

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Manlin State Airport
Project No.: 112C09424

Sample ID No.: MSA-MW-48S-062518
Sample Location: MW-48S
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/25/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1300								
Method: Peristaltic pump	Clear	6.19	0.925	21.36	0.0	3.03	NA	121

PURGE DATA

Date: 6/26/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 18.50								
One Casing Volume(gal/L):								
Start Purge (hrs): 1206								
End Purge (hrs): 1258								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

See low flow purge data sheet

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CRC	1 - 125 ml Poly	
NAA	—	9 -	

OTHER FIELD MEASUREMENTS

Ferrous Iron 0.0 mg/L

QA SAMPLES COLLECTED

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112I C08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-49D-062818
Sample Location: MW-49D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/18								Orp
Time: 0957								
Method: Peristaltic pump	Clear	3.86	1.30	18.87	0.0	3.18	NA	190

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/19								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 17.55			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0906								
End Purge (hrs): 0952								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CrC	1 - 125 ml Poly	

OBSERVATIONS/NOTES

Duplicate/Appendix

MS/MSD | Duplicate ID No.:

Signature(s): Walter R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-49I-062818
Sample Location: MW-49I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/28/18								ORP
Time: 1130								
Method: Peristaltic pump	Clean	4.94	1.28	21.20	13.4	2.83	NA	185

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 17.80		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 1019								
End Purge (hrs): 1125								
Total Purge Time (min): 66								
Total Vol. Purged (gal/L): 3.1								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	CR6	1 - 125 ml Poly	

OBSERVATIONS/NOTES:

Circle if applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112C09424

Sample ID No.: MSA-MW-495-062818
Sample Location: MW-495
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 6/28/18								
Time: 1405								
Method: Peristaltic pump	Clear	5.78	1.22	21.99	3.16	2.53	NA	22

PURGE DATA	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/28/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SEE	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 18.42			Data	Sheet				
One Casing Volume(gal/L):								
Start Purge Time: 1259								
End Purge Time: 1400								
Total Purge Time (min): 61								
Total Vol. Purged (gal): 3.0								

SAMPLE COLLECTION	Analysis	Preservative	Container Requirements	Collected
	VOCs	HCl	3 - 40 ml VOA	yes
	GRO	HCl	2 - 40 ml VOA	
	DRO	—	2 - 250 ml Ambers	
	1,4 Dioxane	—	2 - 250 ml Ambers	
	Total metals	HNO3	1 - 500 ml Poly	
	Diss metals	HNO3	1 - 500 ml Poly	
	Perchlorate	—	1 - 250 ml poly	
	Hex chrom	CRG	1 - 125 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-50D-062618
Sample Location: MW-50D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/26/18								
Time: 0922								Orp
Method: Peristaltic pump	Clear	3.82	0.742	15.92	0.0	3.87	NA	270

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/26/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 11.75		Data Sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 0831								
End Purge (hrs): 0917								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓
Hex chrom	—	1 - 125 ml Poly	↓

OBSERVATIONS/NOTES:

MS/MSD collected

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-50I-062618
Sample Location: MW-50I
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/26/18								
Time: 11:53								
Method: Peristaltic pump	Clear	3.40	0.733	19.76	0.0	4.78	NA	235

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/26/18								
Method: Peristaltic pump								
Monitor Reading (ppm): do								
Well Casing Diameter & Material								
Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 11.35			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1027								
End Purge (hrs): 1148								
Total Purge Time (min): 80								
Total Vol. Purged (gal/L): 3.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	—	1 - 125 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-50S-062618
Sample Location: MW-50S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/26/18								
Time: 1405								
Method: Peristaltic pump								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/26/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	purge		
Static Water Level (WL): 11.49								
One Casing Volume(gal/L):				Data	Sheet			
Start Purge (hrs): 1229								
End Purge (hrs): 1400								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 4.0								

SAMPLE CONTAINER INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
Perchlorate	—	1 - 250 ml Poly	↓
Hex Chrom	CR6	1 - 125 ml Poly	↓

OBSERVATIONS/NOTES:

Code of Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—		Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-51D-062718
Sample Location: MW-51D
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/27/18								
Time: 0955								ORP
Method: Peristaltic pump	Clean	6.47	0.665	18.47	5.0	3.06	NA	-275

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/27/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 7.55			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0904								
End Purge (hrs): 0950								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	ERG	1 - 125 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD: —
Duplicate ID No.: —

Signature(s): Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-51I-062718
Sample Location: MW-51I
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 6/27/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1117								
Method: Peristaltic pump	Clear	3.32	1.51	19.36	0.0	2.89	NA	47

PURGE DATA

Date: 6/27/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):								
Static Water Level (WL): 7.70								
One Casing Volume(gal/L):								
Start Purge (hrs): 1026								
End Purge (hrs): 1112								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

See low flow purge Data Sheet

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	C&G	1 - 125 ml Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.: | Signature(s): Walt Pe

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112EC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MBA-MW-51S-062718
Sample Location: MW-51S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/27/18								
Time: 1350								
Method: Peristaltic pump	Clear	4.98	1.39	17.31	0.0	3.29	NA	99

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/27/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 7.90				Data	Sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1259								
End Purge (hrs): 1345								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 – 40 ml VOA	yes
Gro	HCl	2 – 40 ml VOA	
Dro	—	2 – 250 ml Ambers	
1,4 Dioxane	—	2 – 250 ml Ambers	
Total metals	HNO3	1 – 500 ml Poly	
Diss metals	HNO3	1 – 500 ml Poly	
Perchlorate	—	1 – 250 ml Poly	
Hex Chrom	CRC	1 – 125 ml Poly	

OBSERVATIONS/NOTES:

QUALITY CONTROL:

MS/MSD	Duplicate ID No.:	Signature(s):
		[signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112-108424

Sample ID No.: MSA-MW-520-062618
Sample Location: MW-520
Sampled By: JAM
C.O.C. No.:
Type of Sample:
- [x] Low Concentration
- [ ] High Concentration

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

SAMPLING DATA

Date: 6/26/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other ORP
Time: 1130								
Method: low flow	clear	4.54	0.908	18.19	3.12	2.00	0.4	181

PURGE DATA

Date: 6/26/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diamster & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 16.99								
One Casing Volume(gal/L): —								
Start Purge Time: 1035								
End Purge Time: 1120								
Total Purge Time (min): 45								
Total Vol. Purged (gal): —								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Nitrate	—	1-125 mL poly filtered	✓
Hex chrome	Buffer	1-250 mL poly filtered	✓
1,4-Dioxane	—	2-250 mL amb glass	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓

Hex chrom to ALS

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-52I-062618
Sample Location: MW-52I
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%) ppt	Other ORP
Date: 6/26/18								
Time: 1010								
Method: low flow	clear	4.84	1.15	17.63	7.40	0.00	0.6	151

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/26/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 11.98								
One Casing Volume(gal/L): —								
Start Purge (hrs): 0925								
End Purge (hrs): 1010								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): -2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Perchlorate	—	1-125 mL poly filtered	✓
Hex chrom	Buffer	1-250 mL poly filtered	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly	✓

OBSERVATIONS/NOTES:

Hex chrom to ALS

Quality Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-525-062618
Sample Location: MW-525
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other
Date: 6/26/18								
Time: 0905								
Method: low flow	Clear	7.10	1.85	18.65	9.12	0.00	0.9	~104

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6/26/18								
Method: low flow								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC	See low flow purge data sheet							
Total Well Depth (TD):								
Static Water Level (WL): 7.96								
One Casing Volume(gal/L):								
Start Purge (hrs): 0820								
End Purge (hrs): 0905								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	–	2-250 mL ambers	✓
1,4-dioxane	–	2-250 mL ambers	✓
Perchlorate	–	1-125 mL poly filtered	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly (filtered)	✓
Hex chrome	Buffer	1-250 mL poly (filtered)	✓

OBSERVATIONS/NOTES:

Hex chrom to ALS

Quality Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA GW 2018
Project No.: 112G08924

Sample ID No.: MSA-MW-531-070218
Sample Location: MW-531
Sampled By: JAM
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (ppt)	Other
Date: 7/2/18								
Time: 1325								ORP
Method: low flow	clear	4.36	0.532	27.92	9.15	0.00	0.4	261

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): —		See low flow purge data sheet						
Static Water Level (WL): 11.58								
One Casing Volume(gal/L): —								
Start Purge Time: 1240								
End Purge Time: 1325								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE DESIGNATION/PRESERVATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL amber	✓
Perchlorate	—	1-125 mL poly	✓
Hex Chrom	Buffer	1-250 mL poly	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly	✓

REMARKS/OBSERVATIONS

Hex chrom to ALS

QA/QC SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: 112~~Ito~~ MSA GW
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MSA-MW-535-070218
Sample Location: MW-535
Sampled By: JAM
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity ~~(%)~~ ppt	Other
Date: 7/2/18								
Time: 1155								
Method: low flow	Clear	6.00	0.647	27.18	10.5	0.00	0.3	63

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 7/2/18								
Method: low flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 10.54								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1110								
End Purge (hrs): 1155								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): ~2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
1,4-dioxane	—	2-250 mL ambers	✓
Total Metals	HNO3	1-500 mL poly	✓
Dissolved Metals	HNO3	1-500 mL poly filtered	✓
GRO	HCl	2-40 mL vials	✓
DRO	—	2-250 mL ambers	✓
Hex chrom	Buffer	1-250 mL poly filtered	✓
perchlorate	—	1-125 mL poly filtered	✓

OBSERVATIONS/NOTES:

Hex Chrom to ALS

Quote Stamp/Sample:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MSA-MW-54S-052918
Sample Location: MW-54S
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 5/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1146								
Method: Peristaltic pump	clear	4.76	0.508	17.90	0.0	0.00	0.2	209

PURGE DATA

Date: 5/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 4.50								
One Casing Volume(gal/L):			Data Sheet					
Start Purge Time: 1055								
End Purge Time: 1141								
Total Purge Time (min): 46								
Total Vol. Purged (gal) 1.2								

SAMPLE CONTAINER INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Radionuclide	—	1 - 250 ml Poly	
Hex Chrom	Cool	1 - 125 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICO6424

Sample ID No.: MSA-MW-54I-052918
Sample Location: MW-54I
Sampled By: WP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/29/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1035								
Method: Peristaltic pump	Clear	4.67	0.370	18.11	0.0	0.00	0.2	235

PURGE DATA:

Date: 5/29/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SEE LOW FLOW PURGE					
Total Well Depth (TD):								
Static Water Level (WL): 7.75			DATA SHEET					
One Casing Volume(gal/L):								
Start Purge Time: 0944								
End Purge Time: 1030								
Total Purge Time (min): 46								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml vial	YES
1,4 Dioxane		2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	
Perchlorate	—	1 - 250 ml Poly	
Hex Chrom	Cool	1 - 125 ml Poly	

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pr

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112BC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW01s-051018
Sample Location: MT-MW01s
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 5/10/18								
Time: 1136								
Method: Peristaltic pump	Clear	6.26	0.271	19.91	7.2	6.95	0.1	-36

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/10/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 3.99				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1045								
End Purge (hrs): 1131								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	↓
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Meeting State Airport
Project No.: 112IC08424

Sample ID No.: MT-MW-02S-051018
Sample Location: MT-MW-02S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/10/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 0953								
Method: Peristaltic pump	Clear	6.14	0.421	16.61	7.7	0.36	0.2	-48

PURGE DATA

Date: 5/10/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge data sheet					
Total Well Depth (TD):								
Static Water Level (WL): 8.98								
One Casing Volume(gal/L):								
Start Purge (hrs): 0902								
End Purge (hrs): 0948								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

SAMPLE CONTAINER INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MT-MW03S-050716
Sample Location: MT-MW03S
Sampled By: WP
C.O.C. No.:

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

SAMPLING DATA

Date: 5/7/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1708 1708								
Method: Peristaltic pump	Clear	5.28	0.031	20.02	8.0	3.39	0.0	262

PURGE DATA

Date: 5/7/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See	low	flow	Angle		
Static Water Level (WL): 0.20								
One Casing Volume(gal/L):			Data	Sheet				
Start Purge (hrs): 1532								
End Purge (hrs): 1703								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ZC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW04S-050918
Sample Location: MT-MW04S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/9/18								
Time: 1250								
Method: Peristaltic pump	Clear	4.52	0.090	16.90	0.0	5.44	0.0	ORP 435

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/9/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge						
Total Well Depth (TD):								
Static Water Level (WL): 4.49		Data sheet						
One Casing Volume(gal/L):								
Start Purge (hrs): 1114								
End Purge (hrs): 1245								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	~~VOCs~~ 3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW05S-050818
Sample Location: MT-MW05S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/8/18								
Time: 1304								
Method: Peristaltic pump	Clear	4.15	0.447	18.74	1.0	2.52	0.2	436

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/8/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			see	low	flow	purge		
Total Well Depth (TD):								
Static Water Level (WL): 6.55				Data	sheet			
One Casing Volume(gal/L):								
Start Purge (hrs): 1128								
End Purge (hrs): 1259								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	↓
1,4 Dioxane	—	2 - 250 ml Ambers	↓
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓

OBSERVATIONS (NOTES):

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt P[illegible]

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112ICO8424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW06S-050818
Sample Location: MT-MW06S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 5/8/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1524								
Method: Peristaltic pump	Clear	5.84	4.02	23.62	2.5	0.05	2.2	272

PURGE DATA:

Date: 5/4/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 0.15'			Data sheet					
One Casing Volume(gal/L):								
Start Purge (est): 1344								
End Purge (est): 1575								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE PRESERVATION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
Geo	HCl	2 - 40 ml VOA	
Dro	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	↓

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Wade R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW07S-050718
Sample Location: MT-MW07S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/7/18								
Time: 1129								
Method: Peristaltic pump	Clear	5.85	0.158	18.60	1.1	3.32	0.1	orp 101

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/7/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 9.20								
One Casing Volume(gal/L):			Data sheet					
Start Purge (hrs): 1008								
End Purge (hrs): 1124								
Total Purge Time (min): 75								
Total Vol. Purged (gal/L): 4.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
Total metals	HNO3	1 - 500 ml Poly	↓
Diss metals	HNO3	1 - 500 ml Poly	↓
1,4 Dioxane	—	2 - 250 ml Ambers	↓
DRO	—	2 - 250 ml Ambers	↓
GRO	HCl	2 - 40 ml VOA	↓

OBSERVATIONS/NOTES:

Quality Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	←	Walt P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112C08424

Sample ID No.: MT-MW 085 050718
Sample Location: MT-MW 085
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

Date: 5/7/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1446								
Method: Peristaltic pump	Clear	5.80	0.093	21.96	0.9	3.25	0.0	193

PURGE DATA

Date: 5/7/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 10.11								
One Casing Volume(gal/L):			Data Sheet					
Start Purge Time: 1310								
End Purge Time: 1441								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE CONTAINER/PRESERVATIVE

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	Yes
GRO	HCl	2 - 40 ml VOA	
DRO	A -	2 - 250 ml Ambers	
1,4 Dioxane	-	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s): Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112IC08424

Sample ID No.: MT-MW09S-051018
Sample Location: MT-MW09S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/10/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1537								
Method: Peristaltic pump	Clear	5.62	0.074	23.40	1.8	14.65	0.0	256

PURGE DATA

Date: 5/10/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 7.47								
One Casing Volume(gal/L):			Data sheet					
Start Purge Time: 1401								
End Purge Time: 1532								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	3 - 40 ml VOA	
PRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD | Duplicate ID No.:

Signature(s): Wade P

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin State Airport
Project No.: 112DC08424

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: MT-MW10S-050918
Sample Location: MT-MW10S
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 5/9/18								
Time: 1500								
Method: Peristaltic pump	Clear	5.76	0.320	20.95	4.2	20.93	0.2	195

PURGE DATA

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 5/9/18								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See low flow purge					
Total Well Depth (TD):								
Static Water Level (WL): 11.79			Data sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 1400								
End Purge (hrs): 1446								
Total Purge Time (min): 46								
Total Vol. Purged (gal/L): 1.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total Metals	HNO3	1 - 500 ml Poly	
Diss Metals	HNO3	1 - 500 ml Poly	

OBSERVATIONS/NOTES:

Quote & Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
—	—	Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Merlin State Airport
Project No.: 112ZC08424

Sample ID No.: MT-MW11S-050918
Sample Location: MT-MW11S
Sampled By: MP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA

Date: 5/4/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1043								ORP
Method: Peristaltic pump	Clear	6.24	0.291	16.82	2.0	0.92	0.1	58

PURGE DATA

Date: 5/5/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD):			See low flow purge					
Static Water Level (WL): 2.90								
One Casing Volume(gal/L):			Data Sheet					
Start Purge (hrs): 0907								
End Purge (hrs): 1038								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	YES
GRO	HCl	2 - 40 ml VOA	↓
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES

MS/MSD

Duplicate ID No.:

Signature(s):

Walt R

Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Martin Tak Airport
Project No.: 112RC08424

Sample ID No.: MT-MW12-050818
Sample Location: MT-MW12
Sampled By: MP
C.O.C. No.:

- [ ] Domestic Well Data
- [x] Monitoring Well Data
- [ ] Other Well Type:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

SAMPLING DATA:

Date: 5/9/18	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1045								
Method: Peristaltic pump	Slight	6.93	2.72	18.65	16.5	1.45	1.4	-50

PURGE DATA:

Date: 5/8/18	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			see low flow purge data sheet					
Total Well Depth (TD):								
Static Water Level (WL): 2.90								
One Casing Volume(gal/L):								
Start Purge (hrs): 0914								
End Purge (hrs): 1040								
Total Purge Time (min): 91								
Total Vol. Purged (gal): 2.5								

SAMPLE PRESERVATION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	yes
GRO	HCl	2 - 40 ml VOA	
DRO	—	2 - 250 ml Ambers	
1,4 Dioxane	—	2 - 250 ml Ambers	
Total metals	HNO3	1 - 500 ml Poly	
Diss metals	HNO3	1 - 500 ml Poly	

QUALITY CONTROL SAMPLES:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 1128C08424

WELL ID.: DMW-1A-053018
DATE: 5/30/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0955	8.65	—	—	—	—	—	—	—	—	Initial, no odor clean water
0956	8.75	300	6.30	0.559	0.0	14.20	17.67	150	0.3	
1001	8.75	300	6.00	0.571	0.0	10.92	16.99	66	0.3	
1006	8.75	300	5.74	0.580	0.0	5.98	16.82	79	0.3	
1016	8.75	300	5.69	0.548	0.0	1.24	17.01	87	0.3	
1026	8.75	300	5.70	0.614	0.0	0.98	17.15	89	0.3	
1036	8.75	300	5.70	0.628	0.0	0.34	17.24	91	0.3	
1046	8.75	300	5.70	0.629	0.0	0.33	17.33	91	0.3	
1046	8.75	300	5.71	0.631	0.0	0.33	17.31	91	0.3	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-1B-053018
DATE: 5/30/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1117	9.40	—	—	—	—	—	—	—	—	Initial, no odor
1118	10.45	300	5.24	0.556	0.0	1.63	19.77	102	0.3	clear water
1123	11.30	300	5.63	0.574	0.0	0.14	19.04	98	0.3	
1128	11.60	250	5.61	0.566	0.0	0.00	19.75	106	0.3	
1138	11.70	200	5.58	0.566	0.0	0.00	19.59	114	0.3	
1148	11.70	150	5.56	0.540	0.0	0.00	20.06	120	0.3	
1153	11.70	150	5.56	0.535	0.0	0.00	20.18	122	0.3	
1158	11.70	150	5.56	0.533	0.0	0.00	20.36	122	0.3	
1203	11.70	150	5.57	0.530	0.0	0.00	20.50	122	0.2	

Well parameters Stabilize

Sampling Begins

SIGNATURE(S): _____

PAGE___OF___

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Merlin State Airport
PROJECT NUMBER: 112IC084241

WELL ID.: DMW-15-053018
DATE: 5/30/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0825	7.51	—	—	—	—	—	—	—	—	Initial, no odor
0826	7.70	300	6.64	0.860	23.1	16.72	17.74	184	0.4	Slightly cloudy
0831	7.70	300	7.01	0.553	2.7	10.54	16.49	121	0.3	clear water
0836	7.70	300	6.96	0.350	0.0	8.24	16.17	67	0.2	
0841	7.70	300	6.92	0.250	0.0	6.29	15.94	33	0.1	
0856	7.70	300	6.91	0.227	0.0	6.10	15.54	22	0.1	
0901	7.70	300	6.90	0.221	0.0	4.41	15.96	17	0.1	
0906	7.70	300	6.90	0.217	0.0	3.72	15.92	12	0.1	
0911	7.70	300	6.90	0.216	0.0	3.54	15.91	10	0.1	
0916	7.70	300	6.90	0.215	0.0	3.40	15.87	8	0.1	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112-108424

WELL ID.: MSA-DMW-2A-061518
DATE: 6/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1325	20.25	–	–	–	–	–	–	–	–	START
1330	20.65	300	4.44	1.16	11.5	–	23.27	171	0.6	Clear
1335	20.65	300	4.27	1.24	10.0	–	21.72	216	0.6	Clear
1340	20.65	300	4.25	1.25	7.7	–	21.54	234	0.6	Clear
1345	20.65	300	4.23	1.25	4.7	–	21.47	248	0.6	Clear
1350	20.65	300	4.21	1.25	3.3	–	21.69	260	0.6	Clear
1355	20.65	300	4.19	1.24	2.8	–	21.55	269	0.6	Clear
1400	↓	↓	4.18	1.24	2.1	–	22.68	272	0.6	
1405			4.18	1.24	2.3	–	22.71	273	0.6	
1410	↓	↓	4.19	1.23	2.2	–	22.75	274	0.6	
	Sample VOCs, 1,4-dioxane, Total/Dissolved Metals, Perchlorate @ 1410									
		DO Meter not working								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112B C08424

WELL ID.: DMW-2B-061918
DATE: 6/19/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1344	19.71	—	—	—	—	—	—	—	—	Initial, no odor
1345	20.40	300	5.73	0.027	0.0	6.59	28.55	238	0.0	clear water
1350	20.60	300	5.85	0.026	0.0	4.67	27.93	221	0.0	
1355	20.60	200	5.89	0.026	0.0	4.70	27.04	220	0.0	
1405	20.60	200	5.27	0.031	0.0	6.07	20.17	259	0.0	
1415	20.60	200	5.36	0.028	0.0	6.18	19.48	253	0.0	
1420	20.60	200	5.37	0.028	0.0	6.11	19.51	252	0.0	
1425	20.60	200	5.38	0.028	0.0	6.08	19.53	251	0.0	
1430	20.60	200	5.40	0.027	0.0	5.99	19.45	251	0.0	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Walt [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-2S-061918
DATE: 6/19/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
0800	20.40	—	—	—	—	—	—	—	—	Initial, no odor clear water
0805	20.60	300	6.15	1.48	0.0	2.16	21.88	149	0.7	
0810	20.60	300	6.24	1.50	0.0	0.66	19.17	55	0.8	
0815	20.60	300	6.25	1.51	0.0	0.45	18.38	38	0.8	
0820	20.60	300	6.25	1.52	0.0	0.00	17.80	27	0.8	
0825	20.60	300	6.24	1.52	0.0	0.00	17.56	24	0.8	
0830	20.60	300	6.25	1.52	0.0	0.00	17.36	23	0.8	
0835	20.60	300	6.25	1.52	0.0	0.00	17.29	23	0.8	
0840	20.60	300	6.25	1.52	0.0	0.00	17.32	22	0.8	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 11EC08424
WELL ID.: DMW-3D-062118
DATE: 6/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0959	15.10	—	—	—	—	—	—	—	—	Initial, no odor
1000	15.15	300	6.84	0.268	78.5	4.14	17.64	133	0.1	Slightly Cloudy
1005	15.15	300	6.63	0.171	15.6	4.99	17.04	146	0.1	↓
1010	15.15	300	6.56	0.147	14.4	4.93	16.80	151	0.1	↓
1020	15.15	300	6.53	0.135	7.1	2.83	16.40	155	0.1	Clean Water
1030	15.15	300	6.53	0.131	2.5	1.09	16.47	151	0.1	↓
1035	15.15	300	6.53	0.131	1.5	0.86	16.47	150	0.1	↓
1040	15.15	300	6.52	0.131	1.4	0.85	16.50	146	0.1	↓
1045	15.15	300	6.53	0.131	1.4	0.85	16.54	144	0.1	↓
	←		Well parameters stabilized						→	
	←		Sampling Begins						→	

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-3I-062118
DATE: 6/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0829	15.13	—	—	—	—	—	—	—	—	Initial pump on
0830	15.15	300	6.01	0.316	29.9	11.20	20.14	206	0.1	Slightly cloudy
0835	15.15	300	6.69	0.277	28.4	7.84	18.47	172	0.1	
0840	15.15	300	6.80	0.264	26.3	4.24	17.30	161	0.1	
0845	15.15	300	6.84	0.262	23.8	3.04	16.99	155	0.1	
0900	15.15	300	6.86	0.262	23.6	2.89	16.80	152	0.1	
0905	15.15	300	6.88	0.263	23.2	2.68	16.68	147	0.1	
0910	15.15	300	6.89	0.264	23.6	2.72	16.67	145	0.1	
0915	15.15	300	6.88	0.266	23.8	2.53	16.61	144	0.1	
	←		→ Well	parameters		Stabilize		→		
	←			Sampling		Begins		→		

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-35-062118
DATE: 6/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1129	10.00	—	—	—	—	—	—	—	—	Initial, no odor
1130		300	6.83	0.697	30.1	4.50	18.57	9	0.3	Slightly cloudy
1135		300	7.33	1.75	27.4	0.00	17.38	-123	0.9	
1140		300	8.19	2.49	22.1	0.00	16.63	-182	1.3	
1150		300	7.90	3.15	19.0	0.00	16.03	-223	1.6	
1200		300	7.54	1.71	13.6	0.00	16.57	-206	0.9	
1210		300	7.69	1.82	13.2	0.00	17.00	-215	0.9	
1220		300	7.85	1.86	12.6	0.00	17.15	-230	0.9	
1230		300	7.99	1.90	12.0	0.00	17.30	-242	1.0	
1240		300	8.04	1.94	11.6	0.00	17.40	-254	1.0	
1250		300	8.05	1.98	11.6	0.00	17.63	-254	1.0	
1300		300	8.26	2.22	11.8	0.00	17.79	-263	1.1	
			Well parameters did not							
			Stabilize after 90 max purge							
			purge Work plan Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112JC08424

WELL ID.: DMW-4D-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0945	18.90	–	–	–	–	–	–	–	–	START
0950	18.90	300	5.47	0.698	9.42	4.72	20.55	210	0.3	Clear
0955	18.90	300	5.14	0.772	10.66	2.97	20.65	226	0.4	Clear
1000	18.90	300	4.91	0.822	12.02	2.57	20.62	239	0.4	Clear
1005	18.90	300	4.70	0.871	11.25	2.49	20.70	254	0.4	Clear
1010	18.90	300	4.34	0.916	10.84	2.47	20.50	278	0.5	Clear
1015	18.90	300	4.24	0.939	9.80	2.47	20.69	288	0.5	Clear
1020	↓	↓	4.21	0.955	9.75	2.50	20.73	292	0.5	Clear
1025			4.20	0.953	8.76	2.48	20.88	298	0.5	Clear
1030			4.19	0.951	8.04	2.47	20.89	300	0.5	Clear
	Sample VOCs, 1,4-dioxane, Total/Diss Metals, Perchlorate @ 1030									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-4I-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0840	18.85	–	–	–	–	–	–	–	–	START
0845	18.85	300	4.19	1.33	25.6	0.83	18.77	249	0.7	clear
0850	18.85	300	4.27	1.40	~~27.1~~ 19.4	0.38	17.52	254	0.7	clear
0855	18.85	300	4.28	1.44	18.3	0.19	17.45	258	0.7	clear
0900	18.85	300	4.29	1.47	13.4	0.13	17.60	261	0.7	clear
0905	18.85	300	4.34	1.49	12.6	0.15	17.51	262	0.7	clear
0910	18.85	300	4.30	1.49	11.4	0.08	17.70	262	0.7	clear
0915	↓	↓	4.30	1.50	10.25	0.08	17.64	263	0.8	↓
0920	↓	↓	4.30	1.50	9.80	0.08	17.86	264	0.8	↓
0925	↓	↓	4.30	1.50	8.95	0.07	17.88	264	0.8	↓
	Sample	VOCs, 1,4-Dioxane, Perchlorate,			Total/Dissolved		Metals @ 0925			

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-45-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0730	18.51	–	–	–	–	–	–	–	–	START
0735	19.30	250	5.53	1.33	21.5	0.71	23.63	199	0.7	clear
0740	19.30	250	5.53	1.36	25.7	0.42	21.99	189	0.7	clear
0745	19.30	250	5.58	1.42	23.4	0.38	19.20	180	0.7	clear
0750	19.30	250	5.62	1.49	22.8	0.34	18.33	170	0.7	clear
0755	19.30	250	5.66	1.51	19.2	0.25	18.07	162	0.8	clear
0800	19.30	250	5.68	1.52	17.6	0.18	17.73	156	0.8	clear
0805	↓	↓	5.69	1.52	14.2	0.07	17.76	151	0.8	↓
0810	↓	↓	5.71	1.52	12.9	0.05	17.65	146	0.8	↓
0815	↓	↓	5.71	1.52	9.80	0.04	17.60	144	0.8	↓
	Sample VOCs, 1,4-dioxane, Gro/Dro, Total/Diss Metals @ 0815									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-SF-071018
DATE: 7/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1029	21.75	—	—	—	—	—	—	—	—	Initial, no odor
1030	21.85	300	3.20	0.988	386	6.98	21.24	406	NA	cloudy water
1035	21.85	300	3.02	0.939	85.0	7.26	19.96	479	NA	↓
1040	21.85	300	3.06	0.931	44.2	7.13	19.44	501	NA	↓
1050	21.85	300	3.07	0.932	11.0	6.63	19.45	511	NA	clear water
1100	21.85	300	3.06	0.933	11.8	6.44	19.44	516	NA	↓
1105	21.85	300	3.06	0.934	8.5	6.38	19.41	517	NA	↓
1110	21.85	300	3.03	0.934	8.2	6.32	19.48	520	NA	↓
1115	21.85	300	3.02	0.934	8.4	6.28	19.57	521	NA	↓
	←			Well parameters stabilize					→	
	←				Sampling Begins				→	

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-5S-071018
DATE: 7/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0829	20.91	—	—	—	—	—	—	—	—	Initial, no odor
0830	21.70	300	5.43	1.49	60.3	5.96	18.21	77	NA	Slightly cloudy
0835	21.85	250	5.31	1.48	44.6	4.66	17.77	82	NA	↓
0840	21.85	200	5.29	1.49	41.2	4.24	17.80	79	NA	↓
0845	21.95	200	5.28	1.53	14.7	3.85	17.78	79	NA	Clear water
0900	21.85	200	5.26	1.56	8.1	3.62	17.76	80	NA	↓
0905	21.85	200	5.27	1.56	6.4	3.56	17.83	78	NA	↓
0910	21.85	200	5.28	1.57	6.3	3.48	17.88	79	NA	↓
0915	21.85	200	5.28	1.57	6.4	3.44	17.98	80	NA	↓
				Well parameters Stabilized						
				Sampling Begin						

SIGNATURE(S): Matt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO 8424

WELL ID.: DMW-6D-062018
DATE: 6/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1009	17.60	—	—	—	—	—	—	—	—	Initial, NO odor
1010	17.85	300	4.69	0.413	847	13.13	18.88	251	0.2	cloudy
1015	17.85	300	4.68	0.403	723	8.41	18.67	252	0.2	↓
1020	17.85	300	4.61	0.391	244	3.99	17.50	259	0.2	
1030	17.85	300	4.51	0.393	13.8	3.51	16.94	273	0.2	clear water
1040	17.85	300	4.46	0.396	7.68	3.36	16.79	283	0.2	↓
1045	17.85	300	4.45	0.398	7.00	3.26	16.80	288	0.2	
1050	17.85	300	4.44	0.399	6.98	3.21	16.83	291	0.2	↓
1055	17.85	300	4.41	0.401	6.95	3.19	16.84	295	0.2	
				Well Parameters Stabilized →						
				Sampling Begins →						

SIGNATURE(S): Wade R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC8424
WELL ID.: DMW-6I-062018
DATE: 6/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
0805	17.76	—	—	—	—	—	—	—	—	Initial, no odor
0810	17.80	300	4.71	0.695	416	5.26	21.34	211	0.3	cloudy
0815	17.80	300	5.28	0.652	266	2.04	18.51	132	0.3	
0820	17.80	300	5.25	0.646	235	2.66	17.78	133	0.3	
0825	17.80	300	4.96	0.637	177	3.42	16.50	161	0.3	
0840	17.80	300	4.91	0.638	125	3.24	16.38	179	0.3	
0845	17.80	300	4.83	0.636	118	2.47	16.34	181	0.3	
0850	17.80	300	4.80	0.636	100	2.30	16.27	186	0.3	
0855	17.80	300	4.76	0.635	90.5	2.08	16.37	190	0.3	
0900	17.80	300	4.76	0.632	20.6	1.70	16.55	194	0.3	
0905	17.80	300	4.76	0.633	19.8	1.73	16.51	197	0.3	
0910	17.80	300	4.71	0.632	20.1	1.70	16.55	202	0.3	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: DMW-6s-062018
DATE: 6/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1144	17.45	—	—	—	—	—	—	—	—	Initial, no odor
1145	17.60	300	6.36	1.11	130	2.65	17.96	-41	0.5	cloudy
1150	17.60	300	6.35	1.11	15.1	0.00	17.07	-42	0.6	clear water
1155	17.60	300	6.34	1.12	9.9	0.52	16.62	-43	0.6	
1205	17.60	300	6.34	1.13	6.2	0.10	16.69	-44	0.6	
1215	17.60	300	6.34	1.14	5.1	0.03	16.79	-45	0.6	
1220	17.60	300	6.33	1.16	4.8	0.00	16.84	-47	0.6	
1225	17.60	300	6.33	1.18	4.6	0.00	16.95	-49	0.6	
1230	17.60	300	6.33	1.20	4.6	0.00	17.00	-50	0.6	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Walt Pey

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112760.8424
WELL ID.: DMW-7D-05318
DATE: 5/31/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0859	19.63	—	—	—	—	—	—	—	—	Initial, no odor clear water
0900	19.65	300	4.59	0.277	0.0	13.52	16.33	262	0.1	
0905	19.65	300	4.63	0.177	0.0	5.12	16.21	281	0.1	
0910	19.65	300	4.63	0.151	0.0	3.52	16.11	296	0.1	
0920	19.65	300	4.64	0.128	0.0	2.24	15.98	327	0.1	
0930	19.65	300	4.64	0.123	0.0	2.09	16.00	336	0.1	
0935	19.65	300	4.64	0.121	0.0	2.07	16.06	341	0.1	
0940	19.65	300	4.64	0.120	0.0	2.00	16.00	344	0.1	
0945	19.65	300	4.65	0.120	0.0	1.88	15.92	346	0.1	
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Matt Pre

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ECO 0424

WELL ID.: DMW-7I-053118
DATE: 5/31/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0744	19.80	—	—	—	—	—	—	—	—	Initial, no odor
0745	19.80	300	3.15	1.26	0.7	16.35	17.55	386	0.6	Clean Water
0750	19.80	300	3.41	1.30	0.0	14.05	16.45	282	0.6	
0755	19.80	300	3.77	1.26	0.0	2.20	16.36	266	0.6	
0800	19.80	300	3.90	1.24	0.0	0.77	15.91	270	0.6	
0815	19.80	300	3.96	1.24	0.0	0.53	15.88	274	0.6	
0820	19.80	300	3.96	1.24	0.0	0.37	15.97	274	0.6	
0825	19.80	300	3.96	1.24	0.0	0.38	16.03	274	0.6	
0830	19.80	300	3.96	1.24	0.0	0.37	15.97	275	0.6	
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112 ECO 8424

WELL ID.: Dmw-7s-053118
DATE: 5/31/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
1110	19.45	—	—	—	—	—	—	—	—	Initial, no odor
1111	19.60	300	6.11	1.72	800	0.14	15.87	15	0.9	cloudy water
1116	19.60	300	6.02	1.68	802	0.00	15.93	29	0.8	↓
1121	19.60	300	5.99	1.68	106	0.00	15.84	35	0.9	↓
1131	19.60	300	5.97	1.67	8.0	0.00	15.89	39	0.8	clean water
1141	19.60	300	5.97	1.67	1.8	0.00	15.87	41	0.8	↓
1146	19.60	300	5.97	1.67	0.6	0.00	15.84	41	0.8	↓
1151	19.60	300	5.97	1.67	0.8	0.00	15.90	42	0.8	↓
1156	19.60	300	5.97	1.67	0.8	0.00	15.93	42	0.8	↓
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manteo State Airport
PROJECT NUMBER: 112ECO8424
WELL ID.: DMW-8I-061918
DATE: 6/19/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0954	13.30	—	—	—	—	—	—	—	—	Initial, no odor
0955	13.30	300	5.31	0.806	0.0	14.97	21.50	184	0.4	Clear Water
1000	13.30	300	4.74	0.816	0.0	13.25	19.69	228	0.4	
1005	13.30	300	4.71	0.812	0.0	13.13	19.33	241	0.4	
1015	13.30	300	4.71	0.811	0.0	12.99	19.38	253	0.4	
1025	13.30	300	4.71	0.819	0.0	13.98	19.11	256	0.4	
1030	13.30	300	4.71	0.819	0.0	13.00	19.20	257	0.4	
1035	13.30	300	4.71	0.818	0.0	13.05	19.33	258	0.4	
1040	13.30	300	4.69	0.820	0.0	12.95	19.42	266	0.4	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112TC08424
WELL ID.: DMW-9D-060418
DATE: 6/4/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1012	8.45	—	—	—	—	—	—	—	—	Initial, pre data
1013	8.50	300	4.03	0.356	0.0	17.53	16.02	296	0.2	clear water
1018	8.50	300	4.77	0.307	47.6	1.70	15.05	166	0.1	
1023	8.50	300	4.81	0.295	50.0	1.25	15.32	162	0.1	
1033	8.50	300	4.83	0.295	14.6	0.00	15.18	159	0.1	
1043	8.50	300	4.85	0.296	9.3	0.00	15.27	156	0.1	
1048	8.50	300	4.86	0.298	7.5	0.00	15.37	155	0.1	
1053	8.50	300	4.86	0.297	7.5	0.00	15.42	154	0.1	
1058	8.50	300	4.86	0.298	7.4	0.00	15.35	154	0.1	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pre

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Austin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-9I-060418
DATE: 6/4/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0827	6.75	—	—	—	—	—	—	—	—	Initial, no odor
0828	6.95	300	5.47	1.20	18.1	21.89	18.30	206	0.6	Slightly cloudy
0833	6.95	300	5.54	1.23	8.0	19.88	17.39	78	0.6	Clear water
0838	6.95	300	6.02	1.25	0.0	15.14	16.61	66	0.6	
0843	6.95	300	5.96	1.25	0.0	14.30	15.54	74	0.6	
0848	6.95	300	5.91	1.16	0.0	5.82	15.32	75	0.6	
0903	6.95	300	5.86	1.14	0.0	4.54	15.30	76	0.6	
0908	6.95	300	5.86	1.12	0.0	3.35	15.21	77	0.6	
0913	6.95	300	5.84	1.06	0.0	2.52	15.18	77	0.5	
0918	6.95	300	5.84	1.03	0.0	1.75	15.40	78	0.5	
0923	6.95	300	5.83	1.02	0.0	1.69	15.40	79	0.5	
0928	6.95	300	5.82	1.01	0.0	1.60	15.46	80	0.5	
	←	—		Well parameters			Stabilize		→	
	←	—		Sampling Begins					→	

SIGNATURE(S): Matt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Marlin State Airport
PROJECT NUMBER: 11CIC08424
WELL ID.: DMW-9S-060418
DATE: 6/4/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1334	6.30	—	—	—	—	—	—	—	—	Initial pre-purge
1335	6.40	300	6.44	1.25	11.9	2.07	25.36	-33	0.6	Clear Water
1340	6.40	300	6.50	1.35	8.5	0.93	21.18	-70	0.7	
1345	6.40	300	6.50	1.29	5.7	0.00	19.75	-78	0.6	
1355	6.40	300	6.47	1.22	2.9	0.00	18.93	-84	0.6	
1405	6.40	300	6.46	1.19	0.9	0.00	18.57	-88	0.6	
1410	6.40	300	6.46	1.17	0.0	0.00	18.42	-89	0.6	
1415	6.40	300	6.46	1.16	0.0	0.00	18.31	-90	0.6	
1420	6.40	300	6.47	1.16	0.0	0.00	18.09	-92	0.6	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Wade R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ECO 8424

WELL ID.: DMW-10I-052418
DATE: 5/24/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0948	7.45	—	—	—	—	—	—	—	—	Initial, no odor
0949	8.30	300	6.99	0.104	0.0	9.46	17.74	-44	0.0	clear water
0954	8.77	300	6.57	0.098	0.0	5.53	18.68	-13	0.0	
0959	8.95	200	6.63	0.103	0.0	4.76	17.83	-2	0.0	
1009	8.95	200	6.68	0.113	0.0	4.00	17.40	11	0.0	
1019	9.00	200	6.53	0.134	0.0	3.91	17.36	3	0.1	
1029	9.00	200	6.37	0.154	0.0	3.35	17.78	6	0.1	
1034	9.00	200	6.29	0.160	2.4	3.33	17.65	9	0.1	
1039	9.00	200	6.24	0.170	7.2	3.13	17.70	11	0.1	
1044	9.00	200	6.18	0.173	7.6	3.07	17.30	14	0.1	
1049	9.00	200	6.16	0.178	7.5	3.01	17.47	15	0.1	
1054	9.00	200	6.13	0.179	7.5	3.07	17.45	16	0.1	
~~1059~~										

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Walt [illegible]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Co 8424

WELL ID.: DMW-MW-10S-052418
DATE: 5/24/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0823	6.72	—	—	—	—	—	—	—	—	Initial, no color clear water
0824	6.75	300	6.06	1.07	0.0	13.30	19.92	94	0.5	
0829	6.75	300	6.57	1.08	0.0	4.82	19.30	-49	0.5	
0834	6.75	300	6.54	1.10	0.0	1.50	18.54	-63	0.5	
0844	6.75	300	6.63	1.19	0.0	0.00	18.44	-78	0.6	
0854	6.75	300	6.65	1.19	0.0	0.00	18.40	-80	0.6	
0859	6.75	300	6.63	1.19	0.0	0.00	18.52	-79	0.6	
0904	6.75	300	6.63	1.19	0.0	0.00	18.65	-79	0.6	
0909	6.75	300	6.63	1.19	0.0	0.00	18.82	-80	0.6	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Water

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112JC08424

WELL ID.: DMW-11I-060818
DATE: 6/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1109	6.02	—	—	—	—	—	—	—	—	Initial, pump ordered clear water
1110	6.25	300	6.08	0.039	0.0	3.44	17.19	74	0.0	
1115	6.25	300	5.28	0.032	0.0	1.87	16.29	156	0.0	
1120	6.25	300	5.11	0.030	0.0	1.09	15.98	180	0.0	
1130	6.25	300	4.96	0.027	0.0	0.19	16.01	204	0.0	
1140	6.25	300	4.92	0.025	0.0	0.00	16.17	217	0.0	
1145	6.25	300	4.89	0.025	0.0	0.00	16.15	221	0.0	
1150	6.25	300	4.89	0.025	0.0	0.00	16.15	223	0.0	
1155	6.25	300	4.89	0.025	0.0	0.00	16.08	225	0.0	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Fc08424

WELL ID.: DMW-11S-060818
DATE: 6/6/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0844	3.30	—	—	—	—	—	—	—	—	Initial, NV clear water
0845	3.85	300	5.99	0.600	25.6	6.69	15.69	75	0.3	
0850	3.85	300	5.99	0.500	5.2	1.09	14.91	17	0.2	
0855	3.85	300	6.07	0.407	0.0	0.55	14.86	8	0.2	
0905	3.85	300	6.23	0.416	0.0	0.00	14.54	-21	0.2	
0915	3.85	300	6.27	0.498	0.0	0.00	15.01	-34	0.2	
0920	3.85	300	6.27	0.521	0.0	0.00	14.98	-36	0.3	
0925	3.85	300	6.26	0.523	0.0	0.00	15.13	-36	0.3	
0930	3.85	300	6.28	0.525	0.0	0.00	15.04	-39	0.3	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Jco9424

WELL ID.: MSA-MW-3-052918
DATE: 5/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0818	7.37	—	—	—	—	—	—	—	—	Initial pump on
0819	7.55	300	4.98	0.106	0.0	15.51	20.65	239	0.1	Clear water
0824	7.85	300	6.08	0.108	0.0	5.64	17.96	2	0.0	
0829	8.00	250	6.34	0.097	0.0	4.71	17.28	-26	0.0	
0834	8.26	250	6.59	0.092	0.0	3.75	16.54	-45	0.0	
0849	8.45	200	6.64	0.091	0.0	3.32	16.35	-51	0.0	
0854	8.55	150	6.66	0.091	0.0	3.13	16.51	-53	0.0	
0859	8.57	150	6.67	0.090	0.0	3.00	16.54	-54	0.0	
0904	8.60	150	6.69	0.089	0.0	2.85	16.62	-56	0.0	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08424

WELL ID.: MSA-MW-4-051518
DATE: 5/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1430	3.60	—	—	—	—	—	—	—	—	Initial, MW odor clear water
1431	3.87	300	7.15	1.16	8.0	2.20	29.56	-124	0.6	
1436	4.16	300	7.13	1.20	5.2	1.46	26.22	-116	0.6	
1441	4.30	300	7.08	1.24	4.0	0.33	24.02	-113	0.6	
1457	4.35	200	7.04	1.26	3.1	0.00	23.47	-111	0.6	
1501	4.35	200	7.10	1.27	2.9	0.00	23.13	-113	0.6	
1506	4.35	200	7.08	1.27	3.0	0.00	23.08	-113	0.6	
1511	4.35	200	7.09	1.27	2.7	0.00	23.08	-114	0.6	
1516	4.35	200	7.09	1.27	2.5	0.00	23.04	-114	0.6	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08924

WELL ID.: MSA-MW-5-053118
DATE: 5/31/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	20.35	—	—	—	—	—	—	—	—	Initially, NO odor Clear water
1401	20.65	300	6.84	1.77	0.0	0.24	15.62	-82	0.9	
1406	20.85	300	6.85	1.77	0.0	0.00	15.57	-87	0.9	
1411	21.10	250	6.86	1.77	0.0	0.00	15.76	-92	0.9	
1421	21.20	200	6.86	1.78	0.0	0.00	15.95	-96	0.9	
1431	21.30	100	6.86	1.78	0.0	0.00	16.06	-100	0.9	
1436	21.35	100	6.86	1.78	0.0	0.00	16.17	-101	0.9	
1441	21.40	100	6.86	1.78	0.0	0.00	16.29	-101	0.9	
1446	21.45	100	6.86	1.78	0.0	0.00	16.34	-101	0.9	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Pa

TOC 1.07

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112S108424

WELL ID.: MSA-MW-6-061418
DATE: 6/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1050	13.27	–	–	–	–	–	–	–	–	START
1055	~~13.30~~ 13.33	300	5.70	0.933	290	2.68	15.49	48	0.5	SL cloudy
1100	13.38	300	5.69	0.929	221	2.84	14.84	43	0.5	" "
1105	13.38	300	5.64	0.919	72.6	3.78	14.51	40	0.4	Clear
1110	13.38	300	5.64	0.910	65.2	1.12	14.41	39	0.4	Clear
1115	13.38	300	5.64	0.903	49.0	0.38	14.33	38	0.4	clear
1120	↓	↓	5.63	0.903	25.3	0.15	14.32	37	0.4	↓
1125			5.63	0.902	16.2	0.00	14.31	37	0.4	
1130	↓	↓	5.62	0.902	9.85	0.00	14.31	36	0.4	↓
	Sample @ 1135 for VOCs, 1,4-Dioxane, Total/dissolved Metals, DRO/GRO									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-14D-062218
DATE: 6/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0814	6.62	—	—	—	—	—	—	—	—	Initial, no odor
0815	7.25	300	7.42	0.171	2.9	3.04	20.69	118	0.1	Clean Water
0820	7.60	300	11.15	0.268	2.4	0.15	17.91	-1	0.1	
0825	7.60	200	11.29	0.304	3.5	0.00	17.52	-25	0.1	
0830	7.60	200	11.42	0.372	2.5	0.00	17.06	-54	0.2	
0845	7.60	200	11.49	0.398	2.4	0.00	16.81	-71	0.2	
0850	7.60	200	11.50	0.406	2.1	0.00	16.68	-77	0.2	
0855	7.60	200	11.51	0.408	2.0	0.00	16.61	-82	0.2	
0900	7.60	200	11.52	0.409	2.2	0.00	16.52	-86	0.2	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: PZEC08424
WELL ID.: MSA-MW-14I-062218
DATE: 6/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0919	10.40	—	—	—	—	—	—	—	—	Initial, no odor
0920	10.47	300	7.57	1.12	29.7	8.17	16.93	174	0.6	Slightly Cloudy
0925	10.47	300	6.50	1.31	24.2	0.67	16.25	-94	0.7	↓
0930	10.47	300	6.33	1.36	22.3	0.00	15.95	-73	0.7	↓
0940	10.47	300	6.30	1.36	15.6	0.00	15.93	-70	0.7	↓
0950	10.47	300	6.28	1.37	10.1	0.00	15.91	-65	0.7	Clear Water
0955	10.47	300	6.28	1.37	9.53	0.00	15.89	-63	0.7	↓
1000	10.47	300	6.27	1.37	9.50	0.00	15.88	-61	0.7	↓
1005	10.47	300	6.27	1.38	9.51	0.00	15.89	-59	0.7	↓
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pie

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 11213084424

WELL ID.: MSA-MW-15D-052514
DATE: 5/25/14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1245	4.25	—	—	—	—	—	—	—	—	Initial, pre adjustment
1246	4.25	300	6.86	0.036	192	2.09	21.56	73	0.0	cloudy
1251	4.25	300	5.66	0.036	14.0	0.74	20.25	111	0.0	
1256	4.25	300	5.57	0.034	0.0	0.65	20.51	140	0.0	Clear water
1306	4.25	300	5.17	0.023	0.0	0.48	20.66	217	0.0	
1316	4.25	300	5.10	0.022	0.0	0.37	20.89	243	0.0	
1321	4.25	300	5.08	0.022	0.0	0.37	21.12	249	0.0	
1326	4.25	300	5.09	0.022	0.0	0.36	21.41	252	0.0	
1331	4.25	300	5.07	0.022	0.0	0.35	21.37	255	0.0	
					Well parameters stabilized					
					Sampling Begins					

SIGNATURE(S): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112CO8424
WELL ID.: MSA-MW-15I-052518
DATE: 5/25/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1107	4.24	—	—	—	—	—	—	—	—	Initial, no odor
1108	4.65	300	7.33	0.252	0.0	0.36	19.19	131	0.1	Clear
1113	4.65	300	7.24	0.274	0.0	0.00	19.30	100	0.1	
1118	4.65	300	7.21	0.274	0.0	0.00	19.52	20	0.1	
1123	4.65	300	7.19	0.279	0.0	0.00	20.01	-45	0.1	
1128	4.65	300	7.18	0.279	0.0	0.00	20.49	-58	0.1	
1133	4.65	300	7.18	0.276	0.0	0.00	20.85	-63	0.1	
1138	4.65	300	7.16	0.275	0.0	0.00	21.00	-64	0.1	
1143	4.65	300	7.17	0.272	0.0	0.00	21.25	-63	0.1	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Wade Ro

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICU8424
WELL ID.: DMW-16D-070218
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0809	7.50	—	—	—	—	—	—	—	—	Initial no odor
0810	8.20	300	4.40	0.121	0.0	6.42	23.10	270	NA	Clear Water
0815	8.20	300	4.28	0.046	0.0	4.77	19.84	278	NA	
0820	8.20	300	4.17	0.031	0.0	4.44	18.82	292	NA	
0830	8.20	300	4.04	0.028	0.0	4.17	18.11	310	NA	
0840	8.20	300	4.03	0.017	0.0	3.96	17.80	315	NA	
0845	8.20	300	4.01	0.016	0.0	3.90	17.69	312	NA	
0850	8.20	300	3.99	0.015	0.0	3.90	17.58	315	NA	
0855	8.20	300	4.00	0.015	0.0	3.92	17.53	319		
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Matt Pry

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-16I-070218
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0935	5.72	—	—	—	—	—	—	—	—	Initial, no odor
0936	8.20	300	4.48	0.062	0.0	6.39	20.46	196	NA	Clear Water
0941	8.20	300	4.51	0.064	0.0	4.49	18.90	184	NA	
0946	8.20	300	4.45	0.063	0.0	4.12	18.54	188	NA	
0956	8.20	300	4.35	0.062	0.0	3.57	18.21	209	NA	
1006	8.20	300	4.36	0.062	0.0	3.46	18.06	208	NA	
1011	8.20	300	4.34	0.062	0.0	3.45	17.96	213	NA	
1016	8.20	300	4.31	0.062	0.0	3.43	17.92	217	NA	
1021	8.20	300	4.30	0.062	0.0	3.39	17.95	218	NA	
			Well parameter stabilized							
			Sampling Begins							

SIGNATURE(S): Wayne

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC0842M

WELL ID.: DMW-16S-020218
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1049	8.82	—	—	—	—	—	—	—	—	Initial, no odor
1050	8.90	300	6.01	1.31	0.0	5.14	21.88	-42	NA	clear water
1055	8.90	300	6.13	1.36	0.0	4.34	20.04	-54	NA	
1100	8.90	300	6.21	1.36	0.0	3.92	19.22	-63	NA	
1110	8.90	300	6.25	1.37	0.0	3.31	18.96	-71	NA	
1120	8.90	300	6.32	1.37	0.0	3.23	19.13	-78	NA	
1125	8.90	300	6.35	1.36	0.0	3.20	19.05	-80	NA	
1130	8.90	300	6.38	1.35	0.0	3.15	19.13	-82	NA	
1135	8.90	300	6.39	1.35	0.0	3.06	19.23	-84	NA	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Matt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ECO 8424
WELL ID.: DMW-170-070208
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1229	3.35	—	—	—	—	—	—	—	—	Initial, no code
1230	4.15	300	6.40	0.086	0.0	3.91	25.04	-3	~~-3~~	clear water
1235	5.70	300	5.60	0.099	0.0	3.50	23.81	-27	~~-27~~	
1240	6.80	200	5.77	0.094	0.0	3.03	23.71	-47	~~-47~~	
1250	9.00	100	5.84	0.090	0.0	2.90	23.69	-52	NA	
1300	12.10	100	5.89	0.088	0.0	2.79	23.65	-59	NA	
1310	14.99	100	5.94	0.086	0.0	2.62	23.62	-68	NA	
1320	16.25	100	5.99	0.084	0.0	2.54	23.61	-77	NA	
1330	17.20	100	6.04	0.081	0.0	2.41	23.59	-88	NA	
1335	18.10	100	6.05	0.081	0.0	2.52	23.48	-90	NA	
1340	18.75	100	6.07	0.081	0.0	2.48	23.40	-89	NA	
1350	19.35	100	6.05	0.081	0.0	2.45	23.35	-88	NA	
1400	20.00	100	6.06	0.081	0.0	2.44	23.31	-88	NA	
		Well parameters did not stabilize after 90 Max purge time Work plan Sampling Begins								

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: DMW-17I-070518
DATE: 7/5/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0923	5.82	—	—	—	—	—	—	—	—	Initial, no odor clear water
0924	6.55	300	6.01	0.060	0.0	5.41	23.05	60	NA	
0929	6.80	300	3.89	0.061	0.0	3.75	22.46	136	NA	
0934	6.80	200	4.03	0.060	0.0	3.32	22.27	123	NA	
0944	6.80	200	4.46	0.057	0.0	2.96	22.67	99	NA	
0954	6.80	200	4.72	0.054	0.0	2.69	23.08	71	NA	
0959	6.80	200	4.82	0.054	0.0	2.57	23.73	63	NA	
1004	6.80	200	4.84	0.053	0.0	2.46	24.00	60	NA	
1009	6.80	200	4.86	0.052	0.0	2.39	24.10	54	NA	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO8424

WELL ID.: DMW-17S-070518
DATE: 7/5/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0809	6.50	—	—	—	—	—	—	—	—	Initial, NO odor
0810	7.20	300	5.18	0.312	13.0	3.38	23.93	-10	NA	Clear Water
0815	8.20	300	4.94	0.247	6.7	4.62	21.00	-33	NA	
0820	8.65	250	4.89	0.238	8.0	4.05	19.91	-32	NA	
0830	9.20	200	5.55	0.236	0.0	3.74	18.81	-64	NA	
0840	9.20	200	5.82	0.232	0.0	3.54	18.52	-81	NA	
0845	9.20	200	6.09	0.231	0.0	3.53	18.90	-89	NA	
0850	9.20	200	6.11	0.229	0.0	3.40	18.89	-94	NA	
0855	9.20	200	6.13	0.227	0.0	3.40	18.88	-95	NA	
				Well parameters Stabilized						
					Sampling Begins					

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ECO8424
WELL ID.: MSA-MW-18I-070918
DATE: 7/9/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0845	9.20	—	—	—	—	—	—	—	—	Initial pump action
0846	10.30	300	6.28	3.00	46.7	6.34	21.13	-60	NA	Slightly cloudy
0851	11.00	300	6.33	3.07	35.4	5.32	19.46	-66	NA	↓
0856	10.80	150	6.25	3.09	17.5	4.91	19.07	-67	NA	
0906	10.80	150	6.28	3.22	13.9	4.17	18.80	-67	NA	
0916	10.80	150	6.29	3.21	9.98	4.00	18.62	-67	NA	Clean water
0921	10.80	150	6.29	3.16	9.10	3.90	18.65	-67	NA	↓
0926	10.80	150	6.29	3.14	9.07	3.70	18.61	-67	NA	
0931	10.80	150	6.29	3.13	9.04	3.67	18.66	-66	NA	
				Well parameters stabilize →						
				Sampling Begins →						

SIGNATURE(S): Matt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stake Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-18S-070918
DATE: 7/5/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1020	10.20	—	—	—	—	—	—	—	—	Initial, no odor
1021	10.70	300	6.82	0.189	53.2	4.57	24.87	-35	NA	slightly cloudy
1026	11.40	300	6.72	0.175	42.1	5.01	23.38	-19	NA	
1031	11.85	200	6.74	0.154	42.3	4.65	23.22	4	NA	
1041	12.65	180	6.86	0.117	47.0	3.65	24.42	-3	NA	
1051	13.62	120	6.85	0.117	44.4	2.88	23.46	5	NA	
1056	13.95	100	6.79	0.119	44.9	2.90	23.43	5	NA	
1101	14.21	100	6.69	0.127	45.3	2.91	23.48	-2	NA	
1106	14.45	100	6.46	0.192	47.5	3.61	21.89	-12	NA	
1116	15.30	100	6.16	0.810	44.1	2.64	23.54	-29	NA	
1126	15.50	100	6.19	0.875	47.0	2.67	22.75	-30	NA	
1136	16.20	100	6.30	0.905	45.6	2.72	23.20	-33	NA	
1146	17.00	100	6.45	0.975	47.0	2.80	23.98	-36	NA	
1151	17.95	100	6.51	0.915	48.6	2.96	24.60	-39	NA	

Well parameters did not stabilize after 90 min max purge per work plan Sampling begins

SIGNATURE(S): Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Eco8424

WELL ID.: MSA-MW-19D-053018
DATE: 5/30/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1344	5.45	←	—	—	—	←	—	←	—	Initial pre water clean water
1345	5.50	300	5.11	0.513	0.0	1.71	22.00	152	0.2	
1350	5.50	300	4.70	0.533	0.0	0.00	19.80	205	0.3	
1355	5.50	300	4.67	0.528	0.0	0.00	19.54	224	0.3	
1405	5.50	300	4.67	0.524	0.0	0.00	19.50	230	0.3	
1415	5.50	300	4.67	0.522	0.0	0.00	19.48	236	0.3	
1420	5.50	300	4.67	0.520	0.0	0.00	19.43	240	0.3	
1425	5.50	300	4.67	0.520	0.0	0.00	19.40	245	0.3	
1430	5.50	300	4.67	0.519	0.0	0.00	19.36	250	0.3	
	←		Well Parameters Stabilized →							
	←		Sampling Begins →							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC08424

WELL ID.: MSA-MW-20D-051618
DATE: 5/16/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1402	9.10	—	—	—	—	—	—	—	—	Initial, no odor
1403	9.13	300	5.35	0.264	3.8	9.47	19.04	266	0.1	clear water
1408	9.13	300	4.66	0.267	0.6	8.60	18.38	368	0.1	
1413	9.13	300	4.63	0.266	1.0	8.57	18.14	385	0.1	
1423	9.13	300	4.54	0.267	0.4	8.71	17.76	398	0.1	
1433	9.13	300	4.54	0.268	0.1	8.53	17.65	405	0.1	
1438	9.13	300	4.60	0.268	0.1	8.37	17.61	407	0.1	
1443	9.13	300	4.58	0.269	0.0	8.40	17.62	412	0.1	
1448	9.13	300	4.58	0.268	0.1	8.36	17.67	413	0.1	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Layer

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC08424

WELL ID.: MSA-MW-20I-051618
DATE: 5/16/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1114	7.30	—	—	—	—	—	—	—	—	Initial, no color
1115	7.30	300	7.55	0.201	27.0	5.54	19.17	107	0.1	Slighty Cloudy
1120	7.30	300	7.48	0.188	18.9	4.20	17.19	106	0.1	↓
1125	7.30	300	7.48	0.199	12.5	3.91	17.59	103	0.1	
1135	7.30	300	7.49	0.192	5.7	8.91	19.15	102	0.1	Clear Water
1145	7.30	300	7.66	0.205	6.9	14.11	20.88	107	0.1	
1155	7.30	300	7.64	0.206	6.8	13.97	21.18	116	0.1	
1200	7.30	300	7.66	0.204	6.7	14.05	21.22	111	0.1	
1205	7.30	300	7.65	0.202	6.6	14.15	21.22	112	0.1	↓
				Well Parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08424
WELL ID.: MSA-MW-205-051618
DATE: 5/16/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0926	7.40	—	—	—	—	—	—	—	—	Initial WL data
0927	7.60	300	5.65	0.266	75.0	2.23	20.14	93	0.1	Slightly cloudy
0932	7.60	300	6.51	0.258	71.4	0.15	19.14	-10	0.1	
0937	7.60	300	6.60	0.252	48.5	0.00	18.98	-24	0.1	
0947	7.60	300	6.69	0.245	26.6	6.00	18.87	-5	0.1	
0957	7.60	300	6.74	0.244	18.1	0.62	19.05	1	0.1	
1002	7.60	300	6.81	0.235	17.0	4.01	19.07	-6	0.1	
1007	7.60	300	6.98	0.215	15.5	9.85	19.12	15	0.1	
1017	7.60	300	7.18	0.203	18.3	14.00	19.20	36	0.1	
1022	7.60	300	7.45	0.194	7.3	17.69	19.20	15	0.1	Clean Water
1032	7.60	300	7.55	0.193	5.8	18.71	19.23	-12	0.1	
1042	7.60	300	7.58	0.192	5.1	19.21	19.14	-32	0.1	
1047 ~~1052~~	7.60	300	7.58	0.193	4.5	19.09	19.10	-36	0.1	
1052	7.60	300	7.55	0.195	5.0	19.01	19.10	-42	0.1	
			Well parameters Stabilize →							
			Sampling Begins →							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112COS424
WELL ID.: MSA-MW-21D-052418
DATE: 5/24/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
~~14~~ 1400	9.25	—	—	—	—	—	—	—	—	Initial, no color
1401	9.80	300	7.27	0.123	976	1.13	24.35	3	0.1	cloudy water
1406	9.80	300	6.97	0.120	861	0.26	23.31	22	0.1	
1411	9.80	300	6.84	0.115	638	0.00	22.55	26	0.1	
1421	9.80	300	6.68	0.105	200	0.00	22.99	34	0.0	
1431	9.80	300	6.52	0.099	99.5	0.00	23.52	43	0.0	
1441	9.80	300	6.57	0.103	43.8	0.00	23.40	43	0.0	
1446	9.80	300	6.55	0.100	48.2	0.00	22.62	41	0.0	
1451	9.80	300	6.57	0.100	47.9	0.00	22.28	42	0.0	
1456	9.80	300	6.50	0.099	48.6	0.00	22.05	42	0.0	
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Le

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO8424

WELL ID.: MSA-MW-21I-052416
DATE: 05/24/16

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1134	7.70	—	—	—	—	—	—	—	—	Started pre purge clean water
1135	7.70	300	6.54	0.620	0.0	1.40	27.56	-5	0.3	
1140	7.70	300	6.44	0.650	0.0	0.15	26.82	-11	0.3	
1145	7.70	300	6.43	0.619	0.0	0.00	26.33	-14	0.3	
1150	7.70	300	6.41	0.650	0.0	0.00	25.74	-17	0.3	
1205	7.70	300	6.39	0.681	0.0	0.00	25.57	-18	0.3	
1210	7.70	300	6.39	0.693	0.0	0.00	26.03	-18	0.3	
1215	7.70	300	6.36	0.696	0.0	0.00	26.18	-19	0.3	
1220	7.70	300	6.38	0.699	0.0	0.00	26.26	-19	0.3	4
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walter Pz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Eco 8424

WELL ID.: MSA-MW-22D-052118
DATE: 5/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0907	7.85	—	—	—	—	—	—	—	—	Initial, no odor
0908	8.40	300	5.14	0.155	5.6	4.77	23.02	131	0.1	clear water
0913	8.40	300	6.23	0.162	3.2	5.27	21.36	3	0.1	
0918	8.40	300	6.53	0.134	1.4	5.44	20.66	25	0.1	
0923	8.40	300	6.66	0.122	27.9	4.51	20.67	60	0.1	
0938	8.40	300	6.69	0.118	1.0	3.43	21.31	65	0.1	
0943	8.40	300	6.69	0.117	0.0	3.19	21.49	64	0.1	
0948	8.40	300	6.70	0.116	0.0	3.07	21.62	63	0.1	
0953	8.40	300	6.71	0.116	0.0	2.88	21.85	60	0.1	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-23D-052218
DATE: 5/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0940	7.35	—	—	—	—	—	—	—	—	Initial, no odor
0941	7.40	300	6.80	0.135	0.0	3.74	16.61	-18	0.1	clear water
0946	7.40	250	6.40	0.125	0.0	2.36	16.70	3	0.1	
0951	7.40	250	6.27	0.124	0.0	2.24	16.84	6	0.1	
1001	7.40	250	6.13	0.118	0.0	0.43	16.85	11	0.1	
1011	7.40	250	6.10	0.116	0.0	0.14	16.74	13	0.1	
1016	7.40	250	6.08	0.114	0.0	0.02	16.74	14	0.1	
1021	7.40	250	6.05	0.112	0.0	0.00	16.69	16	0.1	
1026	7.40	250	6.03	0.110	0.0	0.00	16.65	17	0.1	
			WQM parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-23s-052218
DATE: 5/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0724	6.35	—	—	—	—	—	—	—	—	Initial, no odor
0725	6.50	300	6.19	0.495	17.1	6.55	18.25	-19	0.2	Clear water
0730	6.40	200	6.63	0.455	0.0	3.01	17.20	-77	0.2	
0735	6.40	200	6.67	0.457	0.0	2.03	16.36	-88	0.2	
0745	6.40	200	6.72	0.496	0.0	0.09	15.65	-99	0.2	
0755	6.40	200	6.77	0.549	0.0	0.00	15.66	-102	0.2	
0800	6.40	200	6.76	0.566	0.0	0.00	15.63	-102	0.3	
0805	6.40	200	6.75	0.569	0.0	0.00	15.63	-103	0.3	
0810	6.40	200	6.76	0.571	0.0	0.00	15.69	-102	0.3	
				Well parameters Stabilized						
				Sampling Begins						

SIGNATURE(S): Wall

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Moeton State Airport
PROJECT NUMBER: 112DC08424

WELL ID.: MSA-MW-24D-052318
DATE: 5/23/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0915	4.05	—	—	—	—	—	—	—	—	Initial, no odor
0916	4.07	300	4.22	0.150	13.9	6.81	16.75	259	0.1	Clear Water
0921	4.07	300	4.25	0.073	0.0	4.08	16.48	322	0.0	
0926	4.07	300	4.25	0.067	0.0	4.31	16.46	327	0.0	
0931	4.07	300	4.24	0.050	0.0	3.98	16.37	366	0.0	
0946	4.07	300	4.24	0.045	0.0	3.79	16.30	377	0.0	
0951	4.07	300	4.23	0.043	0.0	3.39	16.28	384	0.0	
0956	4.07	300	4.23	0.042	0.0	3.28	16.25	389	0.0	
1001	4.07	300	4.22	0.042	0.0	3.20	16.28	394	0.0	
			WQ Parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC09924
WELL ID.: MSA-MW-24s-05-2318
DATE: 5/23/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0731	3.45	—	—	—	—	—	—	—	—	Initial, no odor
0732	4.30	300	3.73	1.42	32.5	46.50	19.12	318	0.7	Cloudy water
0737	4.31	300	3.89	1.46	19.9	11.03	19.20	304	0.7	↓
0742	4.31	300	4.04	1.73	12.2	2.79	17.49	280	0.9	Clear water
0752	4.31	300	4.08	2.22	6.7	0.27	16.76	250	1.1	↓
0802	4.31	300	4.12	2.34	1.2	0.04	16.53	240	1.2	
0807	4.31	300	4.09	2.36	0.0	0.00	16.50	237	1.2	
0812	4.31	300	4.09	2.38	0.0	0.00	16.45	234	1.2	
0817	4.31	300	4.08	2.40	0.0	0.00	16.40	232	1.2	↓
	←		Well parameters Stabilized						→	
	←		Sampling	Begins					→	

SIGNATURE(S): Walt Pu

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 117ICO8424

WELL ID.: MSA-MW-25I-051518
DATE: 5/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % of ppt	Comments
1034	6.20	—	—	—	—	—	—	—	—	
1039	6.57	300	6.84	0.158	283	4.10	16.74	-19	0.1	Initial, no odor Cloudy water
1044	6.40	250	6.87	0.180	275	1.21	15.72	-22	0.1	
1049	6.40	250	6.89	0.189	171	0.77	15.73	-39	0.1	
1054	6.40	250	6.88	0.188	61.9	0.13	16.27	-52	0.1	
1109	6.40	250	6.86	0.186	25.4	0.00	16.32	-59	0.1	
1114	6.40	250	6.86	0.185	9.19	0.00	16.38	-60	0.1	Clear water
1119	6.40	250	6.85	0.186	9.00	0.00	16.20	-61	0.1	
1124	6.40	250	6.85	0.184	9.02	0.00	16.60	-61	0.1	
			Well parameters stabilize →							
			Sampling Begins →							

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 162IC08424

WELL ID.: MSA-MW-25S-051518
DATE: 5/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
0917	4.80	—	—	—	—	—	—	—	—	Initial purge water
0918	5.55	300	5.92	0.192	5.5	9.04	18.80	230	0.1	Clear water
0923	5.80	250	6.42	0.177	2.9	6.37	18.78	194	0.1	
0928	5.90	150	6.43	0.165	2.1	5.38	17.85	165	0.1	
0933	5.98	150	6.45	0.162	1.9	4.51	17.05	148	0.1	
0938	6.02	100	6.47	0.162	1.4	3.42	16.58	142	0.1	
0943	6.05	100	6.47	0.162	1.4	2.25	16.61	139	0.1	
0948	6.07	100	6.48	0.165	1.4	1.79	16.69	111	0.1	
1003	6.10	100	6.44	0.168	1.3	1.70	16.66	107	0.1	
1008	6.11	100	6.49	0.170	1.4	1.65	16.61	101	0.1	
			Well parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IFC08424

WELL ID.: MSA-MW-26S-052118
DATE: 5/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1058	6.10	—	—	—	—	—	—	—	—	Initial, no odor
1059	6.80	300	7.06	0.249	172	2.44	26.11	128	0.1	cloudy
1104	7.33	300	7.03	0.262	96.8	3.12	22.80	102	0.1	↓
1109	7.60	200	7.02	0.264	80.7	3.46	21.97	103	0.1	↓
1114	7.63	200	7.01	0.266	43.2	3.02	21.66	105	0.1	↓
1129	7.65	200	7.00	0.266	16.9	2.31	21.47	103	0.1	clean water
1134	7.66	200	7.00	0.266	6.59	2.14	21.54	103	0.1	↓
1139	7.66	200	7.00	0.264	6.36	2.00	21.65	109	0.1	↓
1144	7.67	200	7.01	0.264	6.22	1.94	21.46	109	0.1	↓
			Well	parameters	Stabilize					
				Sampling	Begins					

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-27D-061918
DATE: 6/19/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
1114	1.75	—	—	—	—	—	—	—	—	Initial, no odor
1115	1.85	300	5.32	0.024	0.0	9.45	21.62	279	0.0	clear water
1120	1.85	300	4.96	0.023	0.0	0.69	19.53	278	0.0	
1125	1.85	300	4.94	0.019	0.0	6.57	18.85	276	0.0	
1135	1.85	300	4.98	0.017	0.0	0.62	18.00	277	0.0	
1145	1.85	300	4.99	0.016	0.0	0.68	17.85	279	0.0	
1150	1.85	300	4.99	0.016	0.0	0.68	17.86	279	0.0	
1155	1.85	300	5.00	0.016	0.0	0.69	17.84	280	0.0	
1200	1.85	300	5.00	0.016	0.0	0.70	17.84	281	0.0	
				Well parameters Stabilize →						
				Sampling Begins →						

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 1123C08429

WELL ID.: MSA-MW-29D-070918
DATE: 7/9/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1359	8.00	—	—	—	—	—	—	—	—	Initial, NO odor Clear water
1400	8.05	300	6.03	0.037	0.0	6.86	26.73	104	NA	
1405	8.05	300	5.17	0.033	0.0	7.74	23.13	194	NA	
1410	8.05	300	4.38	0.019	0.0	7.40	20.76	245	NA	
1420	8.05	300	4.38	0.011	0.0	7.29	19.20	274	NA	
1430	8.05	300	4.43	0.009	0.0	7.23	18.80	291	NA	
1435	8.05	300	4.44	0.008	2.2	7.17	18.70	296	NA	
1440	8.05	300	4.41	0.008	2.3	7.19	18.40	301	NA	
1445	8.05	300	4.41	0.006	2.3	7.12	18.57	304	NA	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08424

WELL ID.: MSA-MW-30D-062018
DATE: 6/20/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
P1341	3.80	—	—	—	—	—	—	—	—	Initial, pre datum
1342	3.80	300	6.67	0.039	6.0	11.24	20.41	-11	0.0	Clear Water
1347	3.80	300	5.15	0.029	0.0	12.26	17.45	159	0.0	
1352	3.80	300	5.02	0.025	0.0	12.47	16.93	180	0.0	
1402	3.80	300	4.92	0.019	0.0	12.62	16.29	212	0.0	
1412	3.80	300	4.89	0.016	0.0	12.93	15.97	232	0.0	
1417	3.80	300	4.90	0.015	0.0	13.06	15.90	237	0.0	
1422	3.80	300	4.89	0.015	0.0	13.01	15.94	243	0.0	
1427	3.80	300	4.89	0.015	0.0	12.97	15.96	244	0.0	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-30I-052318
DATE: 5/23/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1104	4.23	—	—	—	—	—	—	—	—	Initial, no odor
1105	4.48	300	5.98	0.139	0.0	4.04	19.24	200	0.1	Clean water
1110	4.45	300	6.35	0.146	0.0	1.34	18.96	159	0.1	
1115	4.45	300	6.55	0.160	0.0	0.85	18.87	136	0.1	
1125	4.45	300	6.60	0.163	0.0	1.22	18.98	120	0.1	
1135	4.45	300	6.59	0.161	0.0	1.00	19.23	111	0.1	
1140	4.45	300	6.57	0.160	0.0	0.28	19.29	108	0.1	
1145	4.45	300	6.56	0.159	0.0	0.17	19.33	104	0.1	
1150	4.45	300	6.53	0.157	0.0	0.18	19.49	99	0.1	

Well parameters stabilize

Sampling Begins

SIGNATURE(S): Walt Pry

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08421
WELL ID.: MSA-MW-31D-062218
DATE: 6/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	3.20	—	—	—	—	—	—	—	—	Initial MW after clean water
1401	3.75	300	6.77	0.250	1.7	2.35	16.78	-62	0.1	
1406	3.75	300	6.67	0.190	0.0	0.00	15.55	-92	0.1	
1411	3.75	300	6.61	0.121	0.0	0.00	15.47	-94	0.1	
1421	3.75	300	6.57	0.169	0.0	0.00	15.63	-90	0.1	
1431	3.75	300	6.56	0.168	0.0	0.00	15.72	-91	0.1	
1436	3.75	300	6.58	0.168	0.0	0.00	15.68	-91	0.1	
1441	3.75	300	6.58	0.168	0.0	0.00	15.65	-91	0.1	
1446	3.75	300	6.58	0.168	0.0	0.00	15.61	-92	0.1	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-32I-060818
DATE: 6/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1224	5.20	—	—	—	—	—	—	—	—	Initial, no color clear water
1225	5.25	300	6.42	0.142	4.3	2.35	17.25	-21	0.1	
1230	5.25	300	6.81	0.147	3.8	0.00	16.37	-97	0.1	
1235	5.25	300	6.87	0.150	3.8	0.00	16.39	-117	0.1	
1245	5.25	300	6.90	0.151	4.5	0.00	16.28	-131	0.1	
1255	5.25	300	6.87	0.151	4.2	0.00	16.32	-138	0.1	
1300	5.25	300	6.89	0.152	4.4	0.00	16.37	-140	0.1	
1305	5.25	300	6.89	0.153	4.5	0.00	16.41	-141	0.1	
1310	5.25	300	6.89	0.155	4.4	0.00	16.45	-142	0.1	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-32S-060818
DATE: 6/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	5.10	—	—	—	—	—	—	—	—	Initial, MW extra clear water
1401	5.50	300	6.78	0.350	9.8	0.35	16.48	-100	0.2	
1406	5.50	300	6.90	0.358	0.5	0.00	16.78	-124	0.2	
1411	5.50	300	6.93	0.362	1.2	0.00	16.53	-134	0.2	
1421	5.50	300	6.90	0.362	1.2	0.00	16.58	-136	0.2	
1431	5.50	300	6.90	0.362	1.3	0.00	16.62	-138	0.2	
1436	5.50	300	6.90	0.362	1.4	0.00	16.65	-140	0.2	
1441	5.50	300	6.90	0.362	1.3	0.00	16.68	-142	0.2	
1446	5.50	300	6.90	0.362	1.3	0.00	16.71	-146	0.2	
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt Pz

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO8424

WELL ID.: MSA-MW-33I-052518
DATE: 5/25/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0900	6.70	—	—	—	—	—	—	—	—	Initial, no odor
0901	6.80	300	6.82	0.171	0.0	5.36	15.00	-23	0.1	clear
0906	6.80	300	7.83	0.165	0.0	4.09	15.84	-44	0.1	
0911	6.80	300	7.98	0.164	0.0	3.58	15.59	-48	0.1	
0921	6.80	300	8.07	0.164	0.0	4.01	15.82	-38	0.1	
0931	6.80	300	8.02	0.164	0.0	4.06	15.90	-13	0.1	
0936	6.80	300	7.92	0.163	0.0	4.10	15.93	9	0.1	
0941	6.80	300	7.89	0.163	0.0	4.15	15.97	11	0.1	
0946	6.80	300	7.87	0.164	0.0	4.05	15.94	13	0.1	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO4424
WELL ID.: MSA-MW-33S-052518
DATE: 5/25/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0732	6.55	—	—	—	—	—	—	—	—	Initial pre purge
0733	7.27	300	5.58	0.122	50.5	7.40	15.51	224	0.1	Cloudy
0738	7.45	200	5.55	0.116	0.0	2.32	14.79	145	0.1	Clean
0743	7.56	150	5.52	0.116	0.0	0.63	14.65	107	0.1	
0753	7.52	150	5.47	0.116	0.0	0.00	14.51	91	0.1	
0803	7.60	150	5.45	0.116	0.0	0.00	14.32	88	0.1	
0808	7.60	150	5.44	0.117	0.0	0.00	14.34	87	0.1	
0813	7.60	150	5.44	0.117	0.0	0.00	14.38	86	0.1	
0818	7.60	150	5.45	0.117	0.0	0.00	14.30	85	0.1	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA Gw 2018
PROJECT NUMBER: 112G08424

WELL ID.: MSA-MW-34I-061518
DATE: 6/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1050	4.09	–	–	–	–	–	–	–	–	START
1055	4.40	300	5.58	0.126	7.65	5.67	23.66	190	0.1	Clear
1100	4.42	300	5.55	0.131	7.02	5.95	22.72	192	0.1	Clear
1105	4.42	300	5.57	0.129	6.50	5.77	22.11	190	0.1	Clear
1110	4.42	300	5.40	0.122	6.00	4.15	22.08	196	0.1	Clear
1115	4.42	↓	4.89	0.117	5.21	0.87	22.22	222	0.1	Clear
1120	↓	↓	4.77	0.115	5.00	0.25	22.16	232	0.1	Clear
1125	↓	↓	4.76	0.116	4.55	0.06	22.26	238	0.1	Clear
1130	↓	↓	4.75	0.116	4.50	0.00	22.09	240	0.1	Clear
1135	↓	↓	4.75	0.116	4.25	0.00	22.05	241	0.1	Clear
	Sample	VOCs, 1,4-dioxane, Total/Dissolved Metals @					1135			

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IL08424

WELL ID.: MSA-MW-345-061518
DATE: 6/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0945	4.01	—	—	—	—	—	—	—	—	— START
0950	4.25	300	5.05	0.115	10.25	0.00	22.87	250	0.1	clear
0955	4.30	300	5.06	0.115	9.80	0.00	21.21	240	0.1	clear
1000	4.30	300	5.09	0.115	8.02	0.00	21.12	234	0.1	clear
1005	4.30	300	5.09	0.115	7.02	0.00	20.92	228	0.1	Clear
1010	4.30	300	5.10	0.114	6.45	0.00	21.07	226	0.1	Clear
1015	4.30	300	5.08	0.114	6.00	0.00	20.81	224	0.1	Clear
1020	↓	↓	5.07	0.115	5.85	0.00	20.99	223	0.1	Clear
1025	↓	↓	5.08	0.113	5.60	0.00	21.68	219	0.1	Clear
1030	↓	↓	5.08	0.114	5.65	0.00	21.75	218	0.1	Clear
	Sample	Locs, 1,4-dioxane,		GRO/DRO,	Total/Dissolved		Metals @ 1030			

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08424

WELL ID.: MSA-MW-35-051418
DATE: 5/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1352	8.55	—	—	—	—	—	—	—	—	Initial, no odor clear water
1353	9.35	200	4.12	0.129	4.0	2.38	17.73	260	0.1	
1358	10.15	300	4.19	0.131	7.9	0.00	17.14	279	0.1	
1403	10.64	200	4.20	0.131	3.6	0.00	17.88	290	0.1	
1413	11.40	150	4.21	0.130	1.8	0.00	18.44	302	0.1	
1423	11.82	100	4.22	0.133	0.9	0.00	20.35	314	0.1	
1433	12.90	100	4.21	0.131	0.2	0.00	17.88	312	0.1	
1443	13.70	100	4.21	0.130	0.0	0.00	17.90	309	0.1	
1453	14.40	100	4.21	0.130	0.0	0.00	18.01	312	0.1	
1503	14.95	100	4.21	0.130	0.0	0.00	18.00	314	0.1	
1513	15.65	100	4.21	0.130	1.2	0.00	18.05	316	0.1	
1523	16.16	100	4.21	0.131	0.0	0.00	17.97	317	0.1	

Well did not stabilize after 90 min max purge. Purge work plan Sampling Begins

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC08424
WELL ID.: MSA-MW-36S-051418
DATE: 5/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0920	6.32	—	—	—	—	—	—	—	—	Initial, no odor
0921	7.00	300	4.59	0.078	10.9	17.79	14.99	319	0.0	Clear Water
0926	7.40	300	4.86	0.067	23.9	9.06	14.14	306	0.0	
0931	7.55	200	4.89	0.065	21.0	7.49	13.97	314	0.0	
0941	7.62	150	4.91	0.063	4.3	6.68	13.86	315	0.0	
0951	7.82	150	4.90	0.061	1.9	5.61	13.76	301	0.0	
0956	7.85	100	4.90	0.061	2.0	5.54	13.75	300	0.0	
1001	7.86	100	4.90	0.060	2.0	5.45	13.75	298	0.0	
1006	7.86	100	4.90	0.059	2.0	5.40	13.74	297	0.0	
			Well parameters stabilized							
			Sampling begins							

SIGNATURE(S): Walt Pey

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112EC08424

WELL ID.: MSA-MW-37S-051418
DATE: 5/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1048	6.40	—	—	—	—	—	—	—	—	Initial, no odor
1050	6.48	300	5.78	0.190	199	12.09	17.37	172	0.1	Cloudy Water
1055	6.45	200	5.79	0.194	100	1.70	17.48	135	0.1	
1100	6.45	200	5.80	0.194	54.0	1.24	17.42	127	0.1	
1110	6.45	200	5.81	0.193	35.8	1.15	17.58	121	0.1	
1120	6.45	200	5.83	0.194	9.92	1.16	17.81	119	0.1	Clear Water
1125	6.45	200	5.83	0.193	7.56	1.14	17.89	119	0.1	
1130	6.45	200	5.83	0.192	7.53	1.20	17.87	119	0.1	
1135	6.45	200	5.84	0.192	7.54	1.22	17.84	119	0.1	
				Well Parameters Stable. Start Sampling Begins						

SIGNATURE(S): Walt P

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC08424

WELL ID.: MSA-MW-38S-071018
DATE: 7/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1344	7.85	—	—	—	—	—	—	—	—	Initial, no odor
1345	7.95	300	4.88	0.220	49.6	4.20	16.52	225	NA	Slight Lt. cloudy
1350	7.95	300	4.07	0.210	0.0	4.95	21.42	247	NA	clear water
1355	7.95	300	4.15	0.169	0.0	4.11	20.69	234	NA	
1405	7.95	300	4.73	0.154	0.0	3.55	20.45	157	NA	
1415	7.95	300	5.25	0.166	0.0	3.43	19.85	70	NA	
1420	7.95	300	5.28	0.167	0.0	3.37	19.96	61	NA	
1425	7.95	300	5.31	0.168	0.0	3.35	19.96	56	NA	
1430	7.95	300	5.33	0.169	0.0	3.33	19.55	52	NA	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Wall R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112S608424

WELL ID.: MSA-MW-395-070218
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0840	12.58	—	—	—	—	—	—	—	—	START
0845	12.65	300	6.20	0.464	7.00	1.82	23.63	-1	0.2	clear
0850	13.60	200	6.23	0.503	6.53	0.55	18.26	-1	0.2	clear
0855	14.00	200	6.24	0.508	7.05	0.34	17.25	-6	0.2	clear
0900	14.25	200	6.26	0.510	7.29	0.17	16.77	-11	0.2	clear
0905	14.45	200	6.28	0.512	7.05	0.08	16.88	-15	0.2	clear
0910	14.55	200	6.28	0.513	6.25	0.04	16.84	-19	0.2	clear
0915	14.65	↓	6.29	0.512	6.55	0.00	16.74	-20	0.2	↓
0920	14.70	↓	6.30	0.509	7.02	0.00	16.67	-22	0.2	↓
0925	14.75	↓	6.31	0.510	7.25	0.00	16.58	-23	0.2	↓
	Sample VOCs, 1,4-dioxane, Total/DBS Metals, Gro/Dro @ 0925									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 117IC0842Y

WELL ID.: MSA-MW-40I-061418
DATE: 6/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1255	15.25	-	—	—	—	—	—	—	—	START
1300	15.30	300	5.34	1.23	1.52	0.03	15.19	129	0.6	Clear
1305	15.38	300	5.31	1.24	3.25	0.00	15.29	134	0.6	Clear
1310	15.35	300	5.36	1.24	4.15	0.00	15.72	140	0.6	Clear
1315	15.38	300	5.39	1.22	2.18	0.00	17.24	140	0.6	Clear
1320	15.38	300	5.43	1.22	2.30	0.00	16.64	140	0.6	Clear
1325	↓	↓	5.41	1.22	2.50	0.00	17.04	141	0.6	↓
1330			5.42	1.21	2.75	0.00	16.95	142	0.6	
1335			5.43	1.22	2.60	0.00	16.98	142	0.6	
1340	↓	↓	5.42	1.22	2.82	0.00	17.02	143	0.6	↓
	Sample Lines, 1,4 dioxane, Total/Dissolved Metals @ 1345									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-405-061418
DATE: 6/14/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1155	19.75	—	—	—	—	—	—	—	—	START
1200	15.50	300	6.58	1.22	59.6	0.11	15.08	-12	0.6	clear
1205	16.00	200	6.60	1.22	35.2	0.00	14.64	1	0.6	clear
1210	16.25	200	6.60	1.21	30.3	0.00	14.52	4	0.6	clear
1215	16.50	200	6.58	1.22	20.2	0.00	14.49	5	0.6	clear
1220	16.55	200	6.58	1.22	18.2	0.00	14.50	5	0.6	clear
1225	16.60	200	6.59	1.22	10.75	0.00	14.44	5	0.6	clear
1230	16.60	200	6.58	1.22	8.12	0.00	14.53	5	0.6	clear
1235	16.60	200	6.58	1.22	7.15	0.00	14.45	5	0.6	clear
1240	16.60	200	6.58	1.22	7.00	0.00	14.48	5	0.6	clear
	Sample	VOCs, total/dissolved metals, 1,4-dioxane, DRO/ERO @ 1240								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-41I-052218
DATE: 5/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or (ppt)	Comments
1359	6.70	—	—	—	—	—	—	—	—	Initial pre purge
1400	6.75	300	6.84	0.444	0.0	6.29	15.56	114	0.2	Clear water
1405	6.75	200	7.02	0.341	0.0	5.74	15.16	106	0.2	
1410	6.75	200	7.04	0.335	0.0	5.94	15.10	105	0.2	
1420	6.75	200	6.59	0.405	0.0	3.20	15.02	46	0.2	
1430	6.75	200	5.87	0.703	0.0	0.00	15.24	55	0.2	
1435	6.75	200	5.85	0.742	0.0	0.00	15.82	54	0.3	
1440	6.75	200	5.85	0.803	0.0	0.00	16.04	55	0.3	
1445	6.75	200	5.95	0.908	0.0	0.00	16.15	58	0.3	
			WQ parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Minden State Airport
PROJECT NUMBER: 112BC08424
WELL ID.: MSA-MW-415-052218
DATE: 5/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1135	6.70	—	—	—	—	—	—	—	—	Initial, no odor
1136	7.20	200	6.75	0.658	0.0	4.55	16.24	20	0.3	Clear water
1141	7.15	200	6.64	0.654	0.0	1.40	15.57	56	0.3	
1146	7.15	200	6.34	0.655	0.0	0.40	15.28	93	0.3	
1156	7.15	200	6.06	0.660	0.0	0.00	15.08	132	0.3	
1206	7.15	200	6.05	0.664	0.0	0.00	14.88	148	0.3	
1211	7.15	200	5.95	0.669	0.0	0.00	14.96	161	0.3	
1216	7.15	200	5.90	0.671	0.0	0.00	14.84	166	0.3	
1221	7.15	200	5.85	0.673	0.0	0.00	14.80	171	0.3	
				Well parameters stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stuk Airport
PROJECT NUMBER: 112BC08424

WELL ID.: MSA-MW-42I-052118
DATE: 5/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1520	5.55	—	—	—	—	—	—	—	—	Initial, no odor
1521	6.30	300	6.46	0.217	7.8	2.24	23.84	-18	0.1	Clear water
1526	7.17	300	6.36	0.217	0.0	2.00	22.81	-6	0.1	
1531	7.85	200	6.36	0.221	0.0	1.43	22.02	-7	0.1	
1541	8.20	200	6.34	0.229	0.0	0.91	21.60	-9	0.1	
1551	8.20	100	6.33	0.228	0.0	0.64	21.86	-9	0.1	
1556	8.22	100	6.34	0.230	0.0	0.61	21.74	-10	0.1	
1601	8.22	100	6.33	0.229	0.0	0.60	21.69	-10	0.1	
1606	8.24	100	6.33	0.230	0.0	0.59	21.28	-11	0.1	

Well parameters Stabilized

Sampling Begin

SIGNATURE(S): Walt Re

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICO 8424
WELL ID.: MSA-MW-425-052118
DATE: 5/21/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1347	5.05	—	—	—	—	—	—	—	—	Initial, MW odor
1348	5.42	300	6.54	0.342	31.5	3.02	22.87	-79	0.2	slightly cloudy
1353	5.75	300	6.27	0.346	0.0	3.45	18.01	-69	0.2	clear water
1358	5.85	250	6.15	0.338	0.0	3.78	17.04	-69	0.2	
1408	6.00	200	6.12	0.338	0.3	3.50	16.89	-70	0.2	
1418	6.15	200	6.10	0.339	0.4	3.27	16.40	-71	0.2	
1423	6.15	200	6.14	0.345	0.4	2.82	16.57	-77	0.2	
1428	6.15	200	6.16	0.347	0.6	2.70	16.65	-83	0.2	
1433	6.15	200	6.20	0.349	1.0	2.66	16.66	-87	0.2	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Matt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 117108424
WELL ID.: MSA-MW-435-070218
DATE: 7/7/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0950	12.55	-	-		-		-	-	-	START
0955	12.89	300	7.05	0.564	13.2	0.31	27.43	-33	0.3	clear
1000	13.08	300	6.99	0.569	5.91	0.13	26.68	-19	0.3	clear
1005	13.45	300	6.96	0.592	5.60	0.07	24.61	-1	0.3	clear
1010	13.62	200	6.94	0.559	4.53	0.04	24.22	8	0.3	clear
1015	13.75	200	6.91	0.582	3.97	0.14	23.53	27	0.3	clear
1020	13.80	200	6.89	0.590	3.90	0.13	23.42	31	0.3	clear
1025	13.85	↓	6.87	0.604	3.67	0.15	22.93	39	0.3	↓
1030	13.85		6.86	0.609	2.25	0.11	22.96	43	0.3	
1035	13.85	↓	6.86	0.610	2.50	0.09	22.98	45	0.3	
	Sample	VOCs, 1,4-dioxane, Total/Diss. Metals, BNs/DRO						1035		

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112ICO8424

WELL ID.: MSA-MW-445-061518
DATE: 6/15/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1215	1.35	–	–	–	–	–	–	–	–	START
1220	1.35	300	6.49	6.11	9.80	0.06	29.08	-44	3.4	Clear
1225	1.35	300	6.61	6.10	6.25	0.00	26.49	-68	3.3	Clear
1230	1.35	300	6.67	5.62	5.01	0.00	25.29	-71	3.0	Clear
1235	1.35	300	6.67	5.20	5.05	0.00	24.00	-72	2.8	Clear
1240	1.35	300	6.67	4.92	4.82	0.00	23.65	-73	2.6	Clear
1245	1.35	300	6.67	4.59	4.70	0.00	22.38	-76	2.4	Clear
1250	↓	↓	6.69	3.99	4.50	0.00	21.42	-80	2.1	Clear
1255	↓	↓	6.71	3.95	4.25	0.00	20.96	-83	2.0	Clear
1300	↓	↓	6.72	3.92	4.01	0.00	20.90	-82	1.8	Clear
		Sample VOCs, 1,4-dioxane, Total/Dissolved Metals, Bro/Uro @ 1300								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112JC0 8424
WELL ID.: MSA-MW-455-052318
DATE: 5/23/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1359 ~~1400~~	6.47	—	—	—	—	—	—	—	—	Initial, MW color
1400	6.55	300	6.42	1.67	3.5	1.54	23.67	166	0.8	Clear water
1405	6.55	300	6.34	1.75	0.0	0.34	23.66	170	0.9	
1410	6.55	300	6.34	1.80	0.0	0.03	22.78	176	0.9	
1420	6.55	300	6.40	1.79	0.0	0.03	23.12	181	0.9	
1430	6.55	300	6.33	1.78	0.0	0.00	23.29	178	0.9	
1435	6.55	300	6.32	1.77	0.0	0.00	23.23	194	0.9	
1440	6.55	300	6.30	1.76	0.0	0.00	22.99	197	0.9	
1445	6.55	300	6.30	1.76	0.0	0.00	22.87	199	0.9	
				Well parameter Stabilized						
				Sampling Begins						

SIGNATURE(S): Walt Page

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112I008424

WELL ID.: MSA-MW-46P-062818
DATE: 6/28/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1235	9.70	—	—	—	—		—	—	—	START
1240	9.75	300	6.38	0.107	11.32	0.18	19.13	79	0.0	clear
1245	9.78	300	6.49	0.091	7.51	0.09	18.73	67	0.0	clear
1250	9.78	300	6.49	0.089	4.98	0.05	18.48	61	0.0	clear
1255	9.78	300	6.46	0.087	3.76	0.03	18.48	58	0.0	clear
1300	9.78	300	6.44	0.084	1.73	0.02	18.30	56	0.0	clear
1305	9.78	300	6.42	0.080	3.00	0.00	18.29	55	0.0	clear
1310	↓	↓	6.39	0.079	1.85	0.00	18.29	53	0.0	↓
1315			6.39	0.079	1.76	0.00	18.28	53	0.0	
1320	↓	↓	6.40	0.078	2.07	0.00	18.28	52	0.0	↓
	Sample	VOCs, 1,4-dioxane, Perchlorate, Hex Chrom, Total/Diss Metals @ 1320								

SIGNATURE(S):

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-46I-062818
DATE: 6/28/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1055	8.99	—	—	—	—	—	—	—	—	START
1100	9.01	300	5.86	0.646	11.5	0.37	18.03	110	0.3	clear
1105	9.01	300	5.75	0.633	4.48	0.05	17.50	130	0.3	clear
1110	9.01	300	5.69	0.656	2.17	0.00	17.12	138	0.3	clear
1115	9.01	300	5.68	0.647	2.33	0.00	17.33	140	0.3	clear
1120	9.01	300	5.65	0.626	3.25	0.00	17.51	145	0.3	clear
1125	9.01	300	5.63	0.616	1.99	0.00	17.75	146	0.3	clear
1130	↓	↓	5.61	0.598	2.52	0.00	17.81	149	0.3	↓
1135	↓	↓	5.60	0.595	1.57	0.00	17.79	149	0.3	↓
1140	↓	↓	5.60	0.592	1.78	0.00	17.76	150	0.3	↓
	Sample VOCs, 1,4-dioxane, Total/Dissolved Metals, Perchlorate, Hex Chrom @ 1140									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 117IC08424
WELL ID.: MSA-MW-465-062618
DATE: 6/28/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0950	8.58	-	-	-	-		-	-	-	START
0955	10.25	300	6.25	0.713	64.2	0.32	19.00	113	0.3	Cloudy
1000	10.88	200	6.22	0.712	29.7	0.12	18.99	102	0.3	Sl. cloudy
1005	11.14	200	6.21	0.708	15.1	0.06	19.18	96	0.3	clear
1010	11.70	200	6.21	0.707	14.1	0.02	18.99	93	0.3	clear
1015	11.50	200	6.20	0.706	12.0	0.00	18.86	91	0.3	clear
1020	11.60	200	6.18	0.700	11.7	0.00	18.42	90	0.3	clear
1025	11.63	200	6.17	0.691	10.25	0.00	18.09	90	0.3	clear
1030	11.70	↓	6.16	0.690	8.25	0.00	18.14	89	0.3	↓
1035	11.72	↓	6.15	0.688	6.94	0.00	18.16	89	0.3	↓
	Sample VOCs, 1,4-dioxane, Total/Dissolved Metals, Perchlorate, Hex Chrom, Orthophosphate @ 1035									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: @ 112 ICO8424

WELL ID.: MSA-MW-470-0627/18
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1158	10.03	–	–	–	–	–	–	–	–	START
1200	10.08	300	6.14	0.155	7.60	0.18	20.05	50	0.1	clear
1205	10.13	300	6.09	0.143	10.79	0.09	19.47	50	0.1	clear
1210	10.15	300	6.05	0.135	5.40	0.04	19.07	50	0.1	clear
1215	10.15	300	6.02	0.134	4.35	0.03	18.92	50	0.1	clear
1220	10.15	300	6.03	0.130	3.13	0.00	18.68	49	0.1	clear
1225	10.15	300	5.95	0.129	2.65	0.00	18.55	48	0.1	clear
1230	10.15	300	5.93	0.129	2.35	0.00	18.45	46	0.1	↓
1235	↓	↓	5.91	0.128	2.17	0.00	18.40	45	0.1	↓
1240			5.90	0.128	2.00	0.00	18.38	45	0.1	↓
	Sample VOCs, 1-4 dioxane, Total/dissolved Metals, Fluoride, Hexchrom @ 1240									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 117-1C084-24

WELL ID.: MSA-MW-47I-062718
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1010	9.80	—	—	—	—	—	—	—	—	START
1015	10.10	300	6.96	1.78	20.0	0.27	20.64	59	0.9	clear, odor
1020	10.10	300	6.87	1.76	18.2	0.10	20.41	55	0.9	clear, odor
1025	10.10	300	6.87	1.76	19.6	0.08	20.30	53	0.9	clear, odor
1030	10.10	300	6.77	1.82	17.1	0.02	20.00	51	0.9	clear, odor
1035	10.10	300	6.71	1.83	15.8	0.01	19.94	51	0.9	clear, odor
1040	10.10	300	6.75	1.80	13.2	0.00	19.81	50	0.9	clear, odor
1045	10.10	300	6.67	1.81	10.25	0.00	19.67	50	0.9	clear, odor
1050	↓	↓	6.68	1.82	12.50	0.00	19.53	50	0.9	↓
1055			6.67	1.82	12.12	0.00	19.43	51	0.9	
1100	↓	↓	6.65	1.82	11.85	0.00	19.42	51	0.9	↓
	Sample VOCs, 1,4-dioxane, Total/Dissolved Metals, Perchlorate, Hex Chrom @ 1100									

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-475-062718
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0855	9.77	—	—	—	—	—	—	—	—	START
0900	10.38	300	7.02	1.76	5.32	0.58	24.08	2	0.9	clear, odor
0905	10.52	300	7.06	1.75	6.05	0.21	22.83	-28	0.9	clear, odor
0910	10.63	300	7.09	1.74	2.94	0.09	21.81	-37	0.9	clear, odor
0915	10.68	300	7.07	1.74	3.01	0.07	21.35	-38	0.9	clear, odor
0920	10.73	300	7.04	1.75	2.07	0.05	20.90	-38	0.9	clear, odor
0925	10.78	300	6.98	1.75	1.48	0.02	20.28	-37	0.9	clear, odor
0930	10.82	↓	6.97	1.75	1.16	0.01	20.07	-36	0.9	↓
0935	10.85	↓	6.96	1.76	0.93	0.01	19.88	-35	0.9	↓
0940	10.88	↓	6.93	1.77	1.01	0.00	19.68	-36	0.9	↓
	Sample	VOCs, 1,4-dioxane, Perchlorate, Hex chrom, DNO/GNO, Total/Dissolved metals @ 0940								

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Bca8424
WELL ID.: MSA-MW-48D-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0759	18.65	—	—	—	—	—	—	—	—	Initial, no odor
0800	18.65	300	3.49	0.452	4.7	3.62	18.35	295	NA	clear water
0805	18.65	300	4.04	0.493	0.0	4.45	17.34	274	NA	
0810	18.65	300	4.14	0.496	0.0	4.14	17.41	274	NA	
0820	18.65	300	4.17	0.495	0.0	3.67	17.33	276	NA	
0830	18.65	300	4.20	0.494	0.0	3.38	17.25	278	NA	
0835	18.65	300	4.17	0.493	0.0	3.31	17.29	280	NA	
0840	18.65	300	4.19	0.491	0.0	3.26	17.26	280	NA	
0845	18.65	300	4.19	0.489	0.0	3.19	17.39	273	NA	
	← Well parameters stabilize →									
	← Sampling Begins →									

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-48I-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1030	18.40	—	—	—	—	—	—	—	—	Initial, no odor
1031	18.40	300	5.31	0.753	5.0	3.10	23.25	47	NA	Clear Water
1036	18.40	300	5.49	0.792	2.2	3.66	19.89	-16	NA	
1041	18.40	300	5.52	0.809	0.0	3.52	18.85	-5	NA	
1051	18.40	300	5.67	0.791	0.0	2.91	19.90	2	NA	
1101	18.40	300	5.57	0.771	0.0	2.72	20.61	12	NA	
1106	18.40	300	5.60	0.806	0.0	2.95	18.73	14	NA	
1111	18.40	300	5.59	0.807	0.0	2.97	18.39	18	NA	
1116	18.40	300	5.61	0.806	0.0	2.92	18.51	21	NA	

Well parameters Stabilize

Sampling Begins

SIGNATURE(S): Walt [illegible]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: ICEBC08424
WELL ID.: MSA-MW-48s-062918
DATE: 6/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1206	18.50	—	—	—	—	—	—	—	—	Initial, NO odor
1207	18.70	300	5.97	0.905	0.0	3.75	23.57	100	NA	clear water
1212	18.70	300	5.11	0.854	0.0	4.58	19.64	151	NA	
1217	18.70	300	5.53	0.863	0.0	4.20	19.13	120	NA	
1222	18.70	300	5.59	0.849	0.0	3.67	19.58	103	NA	
1237	18.70	300	6.13	0.818	0.0	3.17	21.29	102	NA	
1242	18.70	300	6.14	0.820	0.0	3.06	21.50	104	NA	
1247	18.70	300	6.17	0.823	0.0	3.03	21.33	103	NA	
1252	18.70	300	6.19	0.825	0.0	3.03	21.36	101	NA	
			Well parameters stabilize							
			Sampling Begin							

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06424

WELL ID.: MSA-MW-490-062818
DATE: 6/28/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0906	17.55	—	—	—	—	—	—	—	—	Initial, NO odor
0907	17.57	300	5.51	1.24	36.7	3.85	23.15	-1	NA	Slightly cloudy
0912	17.57	300	3.74	1.26	8.1	4.08	21.41	190	NA	Clear Water
0917	17.57	300	3.80	1.27	4.3	3.93	20.26	236	NA	
0922	17.57	300	3.80	1.29	1.4	3.54	19.38	241	NA	
0927	17.57	300	3.83	1.29	0.1	3.27	19.33	212	NA	
0932	17.57	300	3.83	1.29	0.0	3.22	19.06	194	NA	
0937	17.57	300	3.85	1.30	0.0	3.21	18.92	193	NA	
0942	17.57	300	3.86	1.30	0.0	3.18	18.87	190	NA	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112Ic08424

WELL ID.: MSA-MW-49I-062818
DATE: 6/28/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1019	17.80	—	—	—	—	—	—	—	—	Initial, no odor
1020	18.03	300	4.79	1.17	350	5.06	21.54	206	NA	Cloudy water
1025	18.03	300	4.76	1.24	338	3.86	20.88	195	NA	
1030	18.03	300	4.83	1.27	325	3.72	20.73	172	NA	
1040	18.03	300	4.67	1.29	231	3.41	20.76	184	NA	
1050	18.03	300	4.67	1.29	233	3.35	20.81	184	NA	
1100	18.03	300	4.62	1.29	50.8	3.28	20.76	190	NA	
1105	18.03	300	4.62	1.28	42.6	3.17	20.90	190	NA	
1110	18.03	300	4.67	1.28	34.5	3.12	21.12	188	NA	
1115	18.03	300	4.64	1.28	13.6	2.87	21.07	183	NA	
1120	18.03	300	4.64	1.28	13.2	2.86	21.17	185	NA	
1125	18.03	300	4.64	1.28	13.4	2.83	21.20	185	NA	
			WCH parameters stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pr

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manton State Airport
PROJECT NUMBER: 112Eco8424

WELL ID.: MSA-MW-48s-062818
DATE: 6/22/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1259	18.42	—	—	—	—	—	—	—	—	Initial, MW odor
1300	18.44	300	7.06	1.24	27.9	4.13	24.06	83	NA	Slightly cloudy
1305	18.44	300	5.51	1.25	25.5	3.02	22.85	73	NA	
1310	18.44	300	5.80	1.25	23.9	3.04	22.55	45	NA	
1320	18.44	300	5.80	1.25	15.6	2.95	22.40	40	NA	
1330	18.44	300	5.81	1.25	8.20	2.70	22.32	35	NA	Clean Water
1340	18.44	300	5.82	1.24	5.00	2.86	22.20	29	NA	
1350	18.44	300	5.83	1.24	3.30	2.50	22.09	21	NA	
1355	18.44	300	5.84	1.24	3.22	2.50	22.00	21	NA	
1400	18.44	300	5.78	1.22	3.16	2.53	21.99	22	NA	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stat Airport
PROJECT NUMBER: 112Bc08424

WELL ID.: MSA-MW-50D-062618
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0831	11.75	—	—	—	—	—	—	—	—	Initial, MW Water Clear Water
0832	11.80	300	3.19	0.781	4.5	7.20	15.33	361	NA	
0837	11.80	300	3.73	0.747	2.4	5.99	17.47	278	NA	
0842	11.80	300	3.81	0.740	3.2	4.73	16.61	272	NA	
0847	11.80	300	3.83	0.739	3.5	4.16	16.08	270	NA	
0902	11.80	300	3.84	0.740	0.2	4.03	16.00	269	NA	
0907	11.80	300	3.84	0.741	0.0	3.94	15.91	269	NA	
0912	11.80	300	3.83	0.741	0.0	3.90	15.95	269	NA	
0917	11.80	300	3.82	0.742	0.0	3.87	15.92	270	NA	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ICo6424
WELL ID.: MSA-MW-50I-062618
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1027	11.35	—	—	—	—	—	—	—	—	Bailed, no odor
1028	11.37	300	4.24	0.680	0.0	9.28	19.17	278	NA	Clear water
1033	11.37	300	3.68	0.716	0.4	6.56	18.47	297	NA	
1038	11.37	300	3.71	0.721	0.0	6.40	18.27	296	NA	
1048	11.37	300	3.74	0.727	0.0	5.90	18.28	285	NA	
1058	11.37	300	3.68	0.736	0.0	5.51	18.29	258	NA	
1103	11.37	300	3.60	0.735	0.0	5.32	18.42	246	NA	
1108	11.37	300	3.47	0.738	0.0	5.16	18.64	243	NA	
1113	11.37	300	3.37	0.739	0.0	5.05	18.87	245	NA	
1118	11.37	300	3.26	0.742	0.0	4.87	19.39	247	NA	
1128	11.37	300	3.28	0.738	0.0	4.83	20.09	219	NA	
1138	11.37	300	3.32	0.731	0.0	4.55	19.71	239	NA	
~~1148~~ 1143	11.37	300	3.35	0.736	0.0	4.81	19.65	237	NA	
~~1158~~ 1148	11.37	300	3.40	0.733	0.0	4.78	19.76	235	NA	

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-505-062
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1229	11.49	—	—	—	—	—	—	—	—	Initial, no odor
1230	11.51	300	6.21	0.806	26.8	6.45	21.42	198	NA	Slightly cloudy
1235	11.51	300	2.17	0.861	0.6	3.57	19.40	368	NA	Clear water
1240	11.51	300	2.45	0.872	0.0	3.26	18.99	344	NA	
1250	11.51	300	3.00	0.870	0.0	3.22	19.10	320	NA	
1300	11.51	300	3.95	0.867	0.0	3.20	19.40	290	NA	
1310	11.51	300	4.52	0.864	0.0	3.19	19.64	252	NA	
1320	11.51	300	5.07	0.858	0.0	3.18	19.85	203	NA	
1325	11.51	300	4.85	0.866	0.0	3.02	19.29	204	NA	
1330	11.51	300	4.85	0.869	0.0	3.01	19.08	220	NA	
1340	11.51	300	4.13	0.871	0.0	2.93	18.97	231	NA	
~~1350~~ 1345	11.51	300	4.14	0.870	0.0	2.91	19.04	233	NA	
~~1400~~ 1350	11.51	300	4.03	0.870	0.0	2.90	19.03	337	NA	

Well parameters stabilized

Sampling Begins

SIGNATURE(S): Matt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC06424

WELL ID.: MSA-MW-510-062718
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0904	7.55	—	—	—	—	—	—	—	—	Initial, no odor
0905	7.65	300	6.50	0.611	5.7	4.44	21.21	-122	NA	clear water
0910	7.65	300	6.27	0.641	5.0	4.02	19.07	-221	NA	
0915	7.65	300	6.58	0.645	5.2	3.84	18.87	-246	NA	
0925	7.65	300	6.59	0.655	5.1	3.51	18.65	-262	NA	
0935	7.65	300	6.58	0.664	4.8	3.22	18.57	-272	NA	
0940	7.65	300	6.51	0.663	4.6	3.15	18.39	-273	NA	
0945	7.65	300	6.48	0.666	4.9	3.09	18.45	-274	NA	
0950	7.65	300	6.47	0.665	5.0	3.06	18.47	-275	NA	
				Well parameters Stabilize						
				Sampling Begins						

SIGNATURE(S): Walt Pac

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-5I-062718
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1026	7.70	—	—	—	—	—	—	—	—	Initial, NU odor
1027	7.70	300	6.02	0.843	0.0	4.51	21.16	-123	NA	clear water
1032	7.70	300	5.08	0.909	0.0	3.68	19.92	-60	NA	
1037	7.70	300	4.62	0.916	0.0	3.43	19.82	-32	NA	
1042	7.70	300	5.02	1.40	0.0	3.07	19.50	-56	NA	
1057	7.70	300	3.45	1.50	0.0	2.92	19.46	32	NA	
1102	7.70	300	3.34	1.51	0.0	2.88	19.41	41	NA	
1107	7.70	300	3.34	1.51	0.0	2.89	19.38	46	NA	
1112	7.70	300	3.32	1.51	0.0	2.89	19.36	47	NA	
	←	—		Well parameters			Stabilize	→		
	↓				Sampling Begins			→		

SIGNATURE(S): Walt Pe

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Mcatin State Airport
PROJECT NUMBER: 112PC08424

WELL ID.: MSA-MW-51S-062718
DATE: 6/27/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1259	7.90	—	—	—	—	—	—	—	—	Initial, no odor clear water
1300	8.20	300	8.53	1.31	2.8	5.91	19.54	-29	NA	
1305	8.20	300	5.23	1.40	0.0	3.63	18.59	85	NA	
1310	8.20	300	5.29	1.40	0.0	3.40	18.16	81	NA	
1320	8.20	300	5.38	1.40	0.0	3.26	17.64	76	NA	
1330	8.20	300	5.27	1.39	0.0	3.27	17.45	81	NA	
1335	8.20	300	5.08	1.39	0.0	3.28	17.36	91	NA	
1340	8.20	300	5.00	1.39	0.0	3.28	17.34	96	NA	
1345	8.20	300	4.98	1.39	0.0	3.29	17.31	99	NA	
			WCH parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Walt Pa

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-52D-062618
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1035	11.89	—	—	—	—	—	—	—	—	START
1040	11.98	300	5.78	0.941	8.69	0.25	18.42	74	0.5	Clear
1045	11.98	300	5.00	0.906	3.06	0.04	18.23	125	0.4	Clear
1050	11.98	300	4.69	0.897	2.43	0.00	18.12	149	0.4	Clear
1055	11.98	300	4.53	0.902	3.30	0.00	18.16	164	0.4	Clear
1100	11.98	300	4.60	0.909	2.45	0.00	18.16	167	0.4	Clear
1105	11.98	300	4.68	0.906	3.21	0.00	18.15	172	0.4	Clear
1110	↓	↓	4.60	0.908	1.99	0.00	18.16	175	0.4	↓
1115	↓	↓	4.59	0.908	2.95	0.00	18.18	179	0.4	↓
1120	↓	↓	4.59	0.908	3.12	0.00	18.19	181	0.4	↓
	Sample	VOCs, 1,4-dioxane,	Total/Diss	Metals,	Perchlorate,	Hex	chrom	@ 1120		

SIGNATURE(S): [signature]

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LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA-GW 2018
PROJECT NUMBER: 112ICOB424

WELL ID.: MSA-MW-52I-062618
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0925	11.98	–	–	–	–	–	–	–	–	START
0930	12.01	300	6.01	1.34	54.0	0.24	18.35	19	0.7	Sl. cloudy
0935	12.01	300	5.16	1.15	41.0	0.11	17.98	92	0.6	Sl. cloudy
0940	12.01	300	4.96	1.14	26.0	0.03	17.83	113	0.6	v. sl. cloudy
0945	12.01	300	4.89	1.14	22.8	0.00	17.74	124	0.6	clear
0950	12.01	300	4.87	1.15	11.8	0.00	17.69	131	0.6	clear
0955	12.01	300	4.87	1.15	10.25	0.00	17.65	140	0.6	clear
1000	↓	↓	4.84	1.15	8.70	0.00	17.62	147	0.6	clear
1005			4.84	1.15	8.95	0.00	17.62	149	0.6	↓
1010	↓	↓	4.84	1.15	7.40	0.00	17.63	151	0.6	↓
	Sample	VOCs, 1,4-dioxane,		perchlorate, Hexachrom,			Total/D	issolved	Metals @	1010

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112ILO8424

WELL ID.: MA-MW-525-062618
DATE: 6/26/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0820	7.96	-	-	-	-	-	-	-	-	START
0825	8.95	300	6.96	2.03	44.4	1.29	22.37	-30	1.0	Sl. cloudy
0830	9.60	300	7.35	1.95	33.7	0.48	21.35	-108	1.0	Sl. cloudy
0835	10.12	200	7.35	1.94	16.6	0.15	20.09	-119	1.0	Sl. cloudy
0840	10.30	200	7.33	1.91	12.80	2.57	19.73	-118	1.0	clear
0845	10.45	200	7.28	1.89	10.25	1.80	19.45	-114	1.0	clear
0850	10.55	200	7.23	1.87	9.47	1.17	19.19	-112	0.9	clear
0855	10.65	↓	7.13	1.86	9.56	0.32	18.83	-106	0.9	↓
0900	10.65		7.11	1.86	8.55	0.06	18.69	-105	0.9	
0905	10.65	↓	7.10	1.85	9.12	0.00	18.65	-104	0.9	↓
	Sample	VOCs, TPH-GRO/DRO, perchlorate, Hex chrom, 1,4-dioxane, TOP/OSC Metals								

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112606424

WELL ID.: MSA-MW-531-072018
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1240	11.48	–	–	–	–	–	–	–	–	START
1245	12.10	300	4.44	0.637	30.2	0.33	37.45	278	0.3	clear
1250	12.15	300	4.46	0.711	19.8	0.12	33.51	268	0.4	clear
1255	12.18	300	4.43	0.735	13.2	0.06	30.25	265	0.4	clear
1300	12.20	300	4.42	0.780	12.75	0.03	28.15	263	0.4	clear
1305	12.20	300	4.40	2.800	11.60	0.00	27.62	262	0.4	clear
1310	12.20	300	4.38	0.825	10.25	0.00	27.50	262	0.4	clear
1315	12.20	↓	4.37	0.831	9.80	0.00	27.91	263	0.4	↓
1320	12.20		4.37	2.832	8.70	0.00	27.85	261	0.4	
1325	12.20		4.36	0.832	9.15	0.00	27.92	261	0.4	
	sample	VOCs, 1,4-Dioxane, Total Mercury			Metals,	Perchlorate, Hex Chrom @ 1325				

SIGNATURE(S):

535

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA GW 2018
PROJECT NUMBER: 112FC08424

WELL ID.: MSA-MW-535-070218
DATE: 7/2/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1110	10.54	–	–	–	–	–	–	–	–	START
1115	11.00	300	6.02	0.652	OVR	0.24	26.76	68	0.3	cloudy
1120	11.25	300	6.01	0.648	OVR	0.12	26.50	68	0.3	cloudy
1125	11.50	300	5.99	0.646	99.3	0.04	26.47	68	0.3	cloudy
1130	11.55	300	5.99	0.644	50.7	0.00	26.71	67	0.3	cloudy
1135	11.60	300	5.99	0.653	38.2	0.00	26.67	66	0.3	sl. cloudy
1140	11.65	300	5.99	0.650	32.8	0.00	26.80	66	0.3	clear
1145	11.70	↓	6.00	0.648	28.2	0.00	27.12	65	0.3	clear
1150	11.75	↓	6.01	0.647	14.3	0.00	27.13	64	0.3	clear
1155	11.80	↓	6.00	0.647	10.5	0.00	27.18	63	0.3	clear
	Sample VOCs, 1,4-dioxane, total/diss metals, GRO/DRO, perch, PCB chem @ 1155									

SIGNATURE(S): [signature]

PAGE 1 OF 1

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Mount Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MSA-MW-54I
DATE: 5/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0944	7.75	—	—	—	—	—	—	—	—	Initial MW data
0948	8.10	300	5.12	0.358	0.0	5.22	19.08	154	0.2	Clear water
0950	8.10	300	4.57	0.361	0.0	0.90	18.58	211	0.2	
0955	8.10	300	4.59	0.374	0.0	0.27	18.12	229	0.2	
1005	8.10	300	4.59	0.377	0.0	0.01	17.94	240	0.2	
1015	8.10	300	4.60	0.377	0.0	0.00	17.98	240	0.2	
1020	8.10	300	4.64	0.373	0.0	0.00	18.05	239	0.2	
1025	8.10	300	4.66	0.372	0.0	0.00	18.02	237	0.2	
1030	8.10	300	4.67	0.370	0.0	0.00	18.16	235	0.2	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MSA-MW-54s-052918
DATE: 5/29/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1055	4.50	—	—	—	—	—	—	—	—	Initial, no odor
1056	5.20	300	4.81	0.499	29.4	4.44	18.22	206	0.2	Slightly cloudy
1101	5.95	200	4.69	0.500	15.6	0.19	17.82	217	0.2	↓
1106	6.55	150	4.68	0.506	3.1	0.00	17.64	218	0.2	Clear water
1116	7.75	100	4.71	0.507	0.0	0.00	17.75	214	0.2	↓
1126	9.00	100	4.74	0.512	0.0	0.00	17.64	211	0.2	↓
1131	9.06	100	4.74	0.508	0.0	0.00	17.85	211	0.2	↓
1136	9.11	100	4.75	0.506	0.0	0.00	18.00	210	0.2	↓
1141	9.16	100	4.76	0.508	0.0	0.00	17.90	209	0.2	↓

← Well parameters stabilize →

← Sampling Begins →

SIGNATURE(S): Walt P[illegible]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112BC08424

WELL ID.: MT-MW01S-051018
DATE: 5/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1045	3.99	—	—	—	—	—	—	—	—	Initial, no odor
1046	3.99	300	6.25	0.272	132	23.37	18.73	-11	0.1	Cloudy water
1051	3.99	300	6.24	0.274	96.6	17.06	19.06	-26	0.1	↓
1056	3.99	300	6.24	0.274	36.0	14.19	19.24	-29	0.1	
1106	3.99	300	6.25	0.273	11.8	12.36	19.87	-34	0.1	clean water
1116	3.99	300	6.25	0.272	8.9	9.08	20.07	-35	0.1	
1121	3.99	300	6.26	0.272	7.5	7.55	20.05	-36	0.1	
1126	3.99	300	6.26	0.272	7.3	7.07	19.97	-36	0.1	
1131	3.99	300	6.26	0.271	7.2	6.95	19.91	-36	0.1	↓
				Well parameters stabilize						
				Sampling Begins						

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112ZC08424

WELL ID.: MT-MW02s-051018
DATE: 5/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0902	8.88	—	—	—	—	—	—	—	—	Initial, no action
0903	9.21	300	5.92	0.443	8.6	10.97	17.94	-20	0.2	Clear water
0908	9.40	200	6.02	0.426	6.9	5.50	17.44	-41	0.2	
0913	9.60	150	6.04	0.423	6.2	2.58	17.29	-47	0.2	
0923	10.15	100	6.09	0.421	5.6	0.83	17.26	-49	0.2	
0933	10.75	100	6.19	0.420	7.2	0.55	16.76	-50	0.2	
0938	11.05	100	6.15	0.420	7.7	0.36	16.82	-49	0.2	
0943	11.13	100	6.15	0.421	7.6	0.35	16.66	-49	0.2	
0948	11.23	100	6.14	0.421	7.7	0.36	16.61	-48	0.2	

Well Parameters Stabilize

Sampling Begins

SIGNATURE(S): Wall

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MT-MW03S-0507
DATE: 5/7/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1532	0.20	—	—	—	—	—	—	—	—	Initial, no odor
1533	0.40	300	5.26	0.033	26.0	7.83	19.41	253	0.0	Slightly Cloudy
1538	1.80	100	5.12	0.032	19.4	4.40	19.57	285	0.0	
1543	3.65	100	5.17	0.031	13.6	3.92	20.11	296	0.0	
1553	4.57	100	5.21	0.032	11.0	3.55	19.77	293	0.0	
1603	6.54	100	5.29	0.031	6.9	3.89	20.09	281	0.0	Clear Water
1613	8.35	100	5.31	0.031	6.8	3.54	19.59	274	0.0	
1623	10.00	100	5.32	0.031	6.7	3.52	19.51	270	0.0	
1633	11.10	100	5.29	0.031	7.0	3.46	20.15	268	0.0	
1643	12.62	100	5.29	0.031	7.2	3.42	20.06	266	0.0	
1653	13.80	100	5.28	0.031	7.9	3.40	19.88	264	0.0	
1703	14.92	100	5.28	0.031	8.0	3.38	20.02	262	0.0	
			Well parameters did not stabilize after 90 min Max purge part Work plan Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112G08424

WELL ID.: MT-MW04S-050918
DATE: 5/9/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1114	4.49	—	—	—	—	—	—	—	—	Initial, NO odor clear water
1115	5.15	300	4.93	0.097	7.1	14.00	16.72	265	0.0	
1120	6.35	250	4.59	0.096	3.0	8.01	15.58	355	0.0	
1125	7.20	100	4.55	0.094	1.5	6.85	15.57	385	0.0	
1135	8.85	100	4.53	0.093	0.6	6.29	15.59	407	0.0	
1145	10.35	100	4.53	0.092	0.2	6.00	15.69	397	0.0	
1155	11.99	100	4.52	0.092	0.1	5.87	16.05	420	0.0	
1205	13.40	100	4.52	0.091	0.1	5.70	16.38	430	0.0	
1215	14.95	100	4.52	0.090	0.0	5.52	16.60	433	0.0	
1225	15.30	100	4.52	0.090	0.1	5.48	16.21	432	0.0	
1235	16.45	100	4.52	0.090	0.0	5.49	16.78	434	0.0	
1245	17.40	100	4.52	0.090	0.0	5.49	16.90	435	0.0	
			Well parameters did not stabilize							
			after 90 min max purge pump							
			rock plan sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112BC08424

WELL ID.: MT-MW05S-050818
DATE: 5/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1128	6.55	—	—	—	—	—	—	—	—	Turbid, no odor
1129	7.40	300	4.31	0.485	5.4	6.47	17.50	298	0.2	Clear water
1134	8.56	250	4.20	0.449	1.6	3.17	16.74	424	0.2	
1139	9.20	100	4.16	0.450	1.3	3.30	16.36	443	0.2	
1149	10.60	100	4.13	0.447	1.8	3.08	17.09	461	0.2	
1159	11.90	100	4.12	0.445	1.2	2.68	17.42	463	0.2	
1209	12.65	100	4.12	0.445	1.1	2.64	17.56	458	0.2	
1219	13.00	100	4.12	0.445	1.1	2.66	17.89	450	0.2	
1229	13.98	100	4.13	0.445	1.0	2.57	18.00	446	0.2	
1239	14.36	100	4.14	0.446	1.0	2.54	18.25	440	0.2	
1249	14.89	100	4.14	0.446	1.0	2.54	18.56	438	0.2	
1259	15.12	100	4.15	0.447	1.0	2.52	18.74	436	0.2	

Well parameters did not stabilize After 90 min max purge Pure work plan Sampling Begins

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424
WELL ID.: MT-MW06S-050818
DATE: 5/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1344	0.15	←	—	—	—	—	—	—	—	Initial, NO odor Clear water
1345	1.80	300	5.80	3.94	8.2	4.47	19.68	363	2.1	
1350	2.50	250	5.90	4.19	7.2	1.54	19.91	342	2.2	
1355	3.40	200	5.91	4.47	5.5	1.55	20.11	328	2.4	
1405	4.52	100	5.92	4.53	4.9	1.23	20.93	316	2.4	
1415	5.60	100	5.93	4.51	4.1	0.76	21.49	311	2.4	
1425	6.10	100	5.92	4.49	3.4	0.57	21.75	311	2.4	
1435	6.45	100	5.91	4.45	2.8	0.56	22.22	300	2.4	
1440	6.60	100	5.91	4.45	2.6	0.36	22.43	290	2.4	
1445	6.70	100	5.89	4.40	2.7	0.35	22.57	277	2.3	
1450	7.05	150	5.86	4.31	2.6	0.19	22.91	273	2.3	
1500	7.30	100	5.85	4.21	2.6	0.11	23.29	273	2.2	
1510	7.55	100	5.85	4.11	2.5	0.08	23.49	272	2.2	
1515	7.73	100	5.84	4.02	2.5	0.05	23.62	272	2.2	

Well parameters did not stabilize after 90 min Max purge time Work Plan Sampling Begins

SIGNATURE(S): Nate

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112FC08424
WELL ID.: MT-MW07S-050718
DATE: 5/7/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1008	9.20	—	—	—	—	—	—	—	—	Initial, no odor
1009	9.66	300	6.19	1.56	4.0	7.48	18.35	-37	0.8	Clear Water
1014	9.60	280	6.29	1.21	3.0	6.11	18.13	-41	0.6	
1019	9.60	280	6.30	0.420	2.6	5.15	18.08	-16	0.2	
1029	9.60	280	6.20	0.239	3.8	3.92	18.07	19	0.1	
1039	9.60	280	6.17	0.206	3.0	3.88	18.37	39	0.1	
1044	9.60	280	6.15	0.199	2.8	3.20	18.48	46	0.1	
1049	9.60	280	6.07	0.188	2.5	3.22	18.34	59	0.1	
1054	9.60	280	5.99	0.176	2.6	3.32	18.40	71	0.1	
1104	9.60	280	5.90	0.163	2.4	3.35	18.39	87	0.1	
1114	9.60	280	5.87	0.159	1.5	3.35	18.57	96	0.1	
1129	9.60	280	5.87	0.160	1.2	3.36	18.54	98	0.1	
1134	9.60	280	5.85	0.158	1.1	3.32	18.60	101	0.1	
~~1139~~	~~9.60~~	~~280~~								
			Well parameters Stab.							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MT-MW08s-050718
DATE: 5/7/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1310	10.11	—	—	—	—	—	—	—	—	Initial, pw color clear water
1311	10.88	300	6.07	0.089	3.4	4.25	27.37	194	0.0	
1316	11.65	300	5.99	0.091	1.9	4.39	25.58	202	0.0	
1321	12.47	200	5.89	0.093	1.5	4.26	23.90	200	0.0	
1331	13.57	150	5.79	0.093	1.4	4.08	23.24	207	0.0	
1341	14.60	100	5.72	0.093	1.1	3.78	22.81	203	0.0	
1351	15.15	100	5.71	0.094	1.2	3.78	22.64	205	0.0	
1401	16.15	100	5.70	0.093	1.1	3.69	22.19	207	0.0	
1411	17.00	100	5.72	0.094	0.8	3.65	22.06	206	0.0	
1421	17.85	100	5.71	0.094	0.9	3.46	22.02	202	0.0	
1431	18.55	100	5.79	0.094	0.8	3.34	22.97	193	0.0	
1441	19.60	100	5.80	0.093	0.8	3.29	21.96	193	0.0	
		Well parameters did not								
		stabilize after 90 mins max								
		purge per work plan Sampling								
		Begins								

SIGNATURE(S): [signature]

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 112IC08424

WELL ID.: MT-MW09S-051018
DATE: 5/10/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1401	7.47	—	—	—	—	—	—	—	—	Initial, no odor
1402	8.35	300	5.72	0.080	7.0	16.17	23.25	189	0.0	Clear water
1407	9.50	200	5.64	0.078	3.9	16.35	22.42	220	0.0	
1412	10.35	200	5.62	0.078	3.3	16.25	21.25	231	0.0	
1422	12.10	100	5.60	0.076	3.1	16.41	22.07	242	0.0	
1432	13.70	100	5.59	0.076	2.5	15.82	22.86	250	0.0	
1442	15.40	100	5.60	0.075	2.6	15.25	23.30	253	0.0	
1457	17.00	100	5.62	0.075	1.7	14.96	23.43	252	0.0	
1502	19.00	100	5.61	0.075	1.5	15.05	23.35	254	0.0	
1512	18.90	100	5.62	0.075	1.6	14.73	23.42	255	0.0	
1522	21.40	100	5.62	0.075	2.0	14.75	23.37	256	0.0	
1532	22.48	100	5.62	0.074	1.8	14.69	23.40	256	0.0	

Well parameters stabilized did not
Stabilize after 90 min Max purge
Purge workplan Sampling begins

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin State Airport
PROJECT NUMBER: 1C2ECO8422

WELL ID.: MT-MW10S-050918
DATE: 5/9/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1400	11.79	—	—	—	—	—	—	—	—	Initial, no odor
1401	12.43	300	6.06	0.254	6.6	23.22	28.03	304	0.1	Clear water
1406	13.09	200	6.03	0.316	5.4	20.00	23.13	275	0.1	
1411	13.40	150	6.01	0.319	4.2	20.22	22.37	266	0.2	
1421	13.90	100	5.92	0.325	4.5	21.23	21.25	258	0.2	
1431	14.20	100	5.85	0.326	4.2	21.15	21.09	225	0.2	
1436	14.25	100	5.92	0.325	4.4	21.24	20.99	201	0.2	
1441	14.30	100	5.79	0.323	4.3	21.17	20.95	197	0.2	
1446	14.35	100	5.76	0.320	4.2	20.93	20.95	195	0.2	
			Well parameters stabilized							
			Sampling Begins							

SIGNATURE(S): Walt

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Manton State Airport
PROJECT NUMBER: 112BC09424

WELL ID.: MT-MW11S-050918
DATE: 5/9/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0907	2.90	—	—	—	—	—	—	—	—	Initial, no odor
0908	3.60	300	5.72	0.386	6.3	8.90	17.43	107	0.2	Clear water
0913	4.53	200	6.07	0.327	1.8	1.43	16.54	56	0.2	
0918	5.00	100	6.08	0.315	2.2	0.84	16.46	53	0.1	
0928	7.05	100	6.09	0.301	2.5	0.00	16.26	49	0.1	
0938	8.55	100	6.10	0.297	1.7	0.00	16.23	49	0.1	
0948	10.40	100	6.14	0.294	2.7	0.02	16.27	48	0.1	
0958	12.00	100	6.18	0.293	2.2	0.41	16.39	49	0.1	
1008	12.80	100	6.21	0.292	2.1	0.26	16.43	50	0.1	
1018	14.15	100	6.22	0.292	2.3	0.27	16.53	52	0.1	
1028	16.42	100	6.23	0.291	2.1	0.89	16.74	56	0.1	
1038	18.25	100	6.24	0.291	2.0	0.92	16.82	58	0.1	

Well Parameters did not Stabilize after 90 min Max Purge per Workplan Sampling Begins

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Martin Stat State Airport
PROJECT NUMBER: 112JC08424

WELL ID.: MT-MW12-050818
DATE: 5/8/18

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or(ppt)	Comments
0914	2.80	—	—	—	—	—	—	—	—	Initial, no odor
0915	3.53	300	5.94	3.25	223	8.45	20.97	-5	1.7	Cloudy water
0920	4.30	250	6.40	3.30	166	5.83	20.06	-56	1.7	
0925	5.10	100	6.46	3.33	134	5.91	19.44	-67	1.7	
0935	6.40	100	6.64	3.38	92.7	5.11	18.85	-70	1.8	
0945	7.85	100	6.70	3.41	65.3	3.56	18.44	-72	1.8	
0955	9.30	100	6.73	3.43	38.1	2.31	18.21	-68	1.8	
1005	10.76	100	6.75	3.44	27.6	1.41	18.15	-67	1.8	Slighty Cloudy
1015	12.35	100	6.75	3.45	23.8	0.99	18.28	-63	1.8	
1020	13.05	100	6.77	3.41	20.4	0.98	18.33	-60	1.8	
1030	14.00	100	6.86	3.01	16.7	1.39	18.58	-57	1.6	
1040	14.60	100	6.83	2.77	16.5	1.45	18.65	-50	1.4	
			Well parameters did not Stabalize							
			after 90 min Max purge part							
			Work Plan Sampling Begins							

SIGNATURE(S): Water

APPENDIX C—ANALYTICAL DATA TABLES

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-DMW-01A DMW-1A-053018 20180530**	**MSA-DMW-01B DMW-1B-053018 20180530**	**MSA-DMW-01S DMW-1S-053018 20180530**	**MSA-DMW-02A MSA-DMW-2A- 20180615**	**MSA-DMW-02B DMW-2B-061918 20180619**	**MSA-DMW-02S DMW-2S-061918 20180619**	**MSA-DMW-03D DMW-3D-062118 20180621**	**MSA-DMW-03I DMW-3I-062118 20180621**	**MSA-DMW-03S DMW-3S-062118 20180621**	**MSA-DMW-04D DMW-4D-062918 20180629**
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 U
1,1,1-TRICHLOROETHANE	24 U	9.6 U	0.24 U	12 U	0.24 U	12 U	0.24 U	16 U	12 U	12 U
1,1,2,2-TETRACHLOROETHANE	13 U	5.2 U	0.13 U	6.5 U	0.13 U	6.5 U	0.13 U	8.7 U	6.5 U	6.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	41 U	16 U	0.41 U	21 U	0.41 U	21 U	0.41 U	27 U	21 U	21 U
1,1-DICHLOROETHANE	17 U	6.8 U	0.17 U	8.5 U	0.17 U	8.5 U	0.17 U	11 U	8.5 U	8.5 U
1,1-DICHLOROETHENE	19 U	7.6 U	0.19 U	14 J	0.49 J	25 J	0.19 U	13 U	9.5 U	9.5 U
1,1-DICHLOROPROPENE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 U
1,2,3-TRICHLOROBENZENE	54 UJ	22 UJ	0.54 UJ	27 U	0.54 U	27 U	0.54 U	36 U	27 U	27 U
1,2,3-TRICHLOROPROPANE	24 U	9.6 U	0.24 U	12 U	0.24 U	12 U	0.24 U	16 U	12 U	12 U
1,2,3-TRIMETHYLBENZENE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 U
1,2,4-TRICHLOROBENZENE	26 U	10 U	0.26 U	120	0.26 U	13 U	0.26 U	200	13 U	13 U
1,2,4-TRIMETHYLBENZENE	7 U	2.8 U	0.07 U	3.5 U	0.07 U	3.5 U	0.07 U	4.7 U	3.5 U	3.5 U
1,2-DIBROMO-3-CHLOROPROPANE	91 U	36 U	0.91 U	46 U	0.91 U	46 U	0.91 U	61 U	46 U	46 U
1,2-DIBROMOETHANE	12 U	4.8 U	0.12 U	6 U	0.12 U	6 U	0.12 U	8 U	6 U	6 U
1,2-DICHLOROBENZENE	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
1,2-DICHLOROETHANE	22 J	8.4 U	0.21 U	29 J	0.21 U	13 J	0.21 U	18 J	11 U	11 U
1,2-DICHLOROPROPANE	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
1,3-DICHLOROBENZENE	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
1,3-DICHLOROPROPANE	21 U	8.4 U	0.21 U	11 U	0.21 U	11 U	0.21 U	14 U	11 U	11 U
1,4-DICHLOROBENZENE	16 U	6.4 U	0.16 U	8 U	0.16 U	8 U	0.16 U	11 U	8 U	8 U
2,2-DICHLOROPROPANE	31 U	12 U	0.31 U	16 U	0.31 U	16 U	0.31 U	21 U	16 U	16 U
2-BUTANONE	120 U	46 U	1.2 U	58 U	2.3 J	58 U	1.2 U	140 J	70 J	58 U
2-CHLOROETHYL VINYL ETHER	26 UR	10 UR	0.26 UR	13 UR	0.26 UR	13 UR	0.26 UR	17 UR	13 UR	13 UR
2-CHLOROTOLUENE	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
2-HEXANONE	54 U	22 U	0.54 U	27 U	0.54 U	27 U	0.54 U	36 U	27 U	27 U
4-CHLOROTOLUENE	9 U	3.6 U	0.09 U	4.5 U	0.09 U	4.5 U	0.09 U	6 U	4.5 U	4.5 U
4-ISOPROPYLTOLUENE	13 U	5.2 U	0.13 U	6.5 U	0.13 U	6.5 U	0.13 U	8.7 U	6.5 U	6.5 U
4-METHYL-2-PENTANONE	42 U	17 U	0.42 U	21 U	0.42 U	21 U	0.42 U	28 U	21 U	21 U
ACETONE	540 U	220 U	5.4 U	270 U	5.4 U	270 U	5.4 U	360 U	270 U	270 U
BENZENE	15 J	12 J	0.13 U	11 J	0.13 U	12 J	0.13 U	8.7 U	6.5 U	6.5 U
BROMOBENZENE	12 U	4.8 U	0.12 U	6 U	0.12 U	6 U	0.12 U	8 U	6 U	6 U
BROMOCHLOROMETHANE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 U
BROMODICHLOROMETHANE	17 U	6.8 U	0.17 U	8.5 U	0.17 U	8.5 U	0.17 U	11 U	8.5 U	8.5 U
BROMOFORM	76 U	30 U	0.76 U	38 U	0.76 U	38 U	0.76 U	51 U	38 U	38 U
BROMOMETHANE	42 U	17 U	0.42 U	21 U	0.42 U	21 U	0.42 U	28 U	21 U	21 U
CARBON DISULFIDE	28 U	11 U	0.28 U	14 U	0.28 U	14 U	0.28 U	19 U	14 U	14 U
CARBON TETRACHLORIDE	26 U	10 U	0.26 U	13 U	0.26 U	13 U	0.26 U	17 U	13 U	13 U
CHLOROBENZENE	14 U	5.6 U	0.68 J	7 U	0.14 U	11 J	0.14 U	9.3 U	7 U	7 U
CHLORODIBROMOMETHANE	39 U	16 U	0.39 U	20 U	0.39 U	20 U	0.39 U	26 U	20 U	20 U
CHLORODIFLUOROMETHANE	100 UJ	40 UJ	1 UJ	50 UJ	1 UJ	50 UJ	1 UJ	67 UJ	50 UJ	50 UJ
CHLOROETHANE	83 U	33 U	0.83 U	42 U	0.83 U	42 U	0.83 U	55 U	42 U	42 U
CHLOROFORM	13 U	5.2 U	0.13 U	12 U	0.13 U	6.5 U	0.13 U	8.7 U	6.5 U	6.5 U
CHLOROMETHANE	20 U	8 U	0.2 U	10 U	0.2 U	10 U	0.2 U	13 U	10 U	10 U
CIS-1,2-DICHLOROETHENE	2600	330	1.5	1800	18	2800	0.16 U	1500	830	400
CIS-1,3-DICHLOROPROPENE	61 U	24 U	0.61 U	31 U	0.61 U	31 U	0.61 UJ	41 UJ	31 UJ	31 U
DIBROMOMETHANE	9 U	3.6 U	0.09 U	4.5 U	0.09 U	4.5 U	0.09 U	6 U	4.5 U	4.5 U
DICHLORODIFLUOROMETHANE	35 U	14 U	0.35 U	18 UJ	0.35 UJ	18 UJ	0.35 UJ	23 UJ	18 UJ	18 UJ
DIISOPROPYL ETHER	17 U	6.8 U	0.17 U	8.5 U	0.17 U	8.5 U	0.17 U	11 U	8.5 U	8.5 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-DMW-04D
SAMPLE ID	DMW-1A-053018	DMW-1B-053018	DMW-1S-053018	MSA-DMW-2A-	DMW-2B-061918	DMW-2S-061918	DMW-3D-062118	DMW-3I-062118	DMW-3S-062118	DMW-4D-062918
SAMPLE DATE	20180530	20180530	20180530	20180615	20180619	20180619	20180621	20180621	20180621	20180629
ETHYL TERT-BUTYL ETHER	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 UJ	10 UJ	7.5 UJ	7.5 U
ETHYLBENZENE	11 U	4.4 U	0.11 U	5.5 U	0.11 U	5.5 U	0.11 U	7.3 U	6.4 J	5.5 U
HEXACHLOROBUTADIENE	83 UJ	33 UJ	0.83 UJ	42 U	0.83 U	42 U	0.83 U	55 U	42 U	42 UJ
ISOPROPYLBENZENE	9 U	3.6 U	0.09 U	4.5 U	0.09 U	4.5 U	0.09 U	6 U	4.5 U	4.5 U
M+P-XYLENES	8 U	3.2 U	0.08 U	4 U	0.08 U	4 U	0.08 U	5.3 U	4 U	4 U
METHYL TERT-BUTYL ETHER	7 U	2.8 U	0.07 U	3.5 U	0.07 U	3.5 U	0.07 U	4.7 U	3.5 U	3.5 U
METHYLENE CHLORIDE	260 U	100 U	2.6 U	130 U	2.6 U	130 U	2.6 U	170 U	130 U	130 U
NAPHTHALENE	32 U	13 U	0.32 U	16 U	0.32 U	16 U	0.32 U	21 U	16 U	16 U
N-BUTYLBENZENE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 UJ
N-PROPYLBENZENE	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
O-XYLENE	9 U	3.6 U	0.09 U	5.4 J	0.09 U	4.5 U	0.09 U	6 U	4.5 U	4.5 U
SEC-BUTYLBENZENE	13 U	5.2 U	0.13 U	6.5 U	0.13 U	6.5 U	0.13 U	8.7 U	6.5 U	6.5 U
STYRENE	10 U	4 U	0.1 U	5 U	0.1 U	5 U	0.1 U	6.7 U	5 U	5 U
TERT-AMYL METHYL ETHER	11 U	4.4 U	0.11 U	5.5 U	0.11 U	5.5 U	0.11 UJ	7.3 UJ	5.5 UJ	5.5 U
TERT-BUTYLBENZENE	14 U	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	7 U	7 U
TERTIARY-BUTYL ALCOHOL	170 U	68 U	1.7 U	85 U	1.7 U	85 U	1.7 U	110 U	85 U	85 U
TETRACHLOROETHENE	15 U	6 U	0.15 U	7.7 J	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
TOLUENE	18 J	5.6 U	0.14 U	7 U	0.14 U	7 U	0.14 U	9.3 U	19 J	7 U
TOTAL XYLENES	15 U	6 U	0.15 U	7.5 U	0.15 U	7.5 U	0.15 U	10 U	7.5 U	7.5 U
TRANS-1,2-DICHLOROETHENE	25 J	7.6 U	0.19 U	10 J	2.3	9.5 U	0.19 U	13 U	240	9.5 U
TRANS-1,3-DICHLOROPROPENE	67 U	27 U	0.67 U	34 U	0.67 U	34 U	0.67 U	45 U	34 U	34 U
TRICHLOROETHENE	2200	180	0.12 U	3700	5.5	1000	0.24 J	2500	5 U	1800
TRICHLOROFLUOROMETHANE	45 U	18 U	0.45 U	23 U	0.45 U	23 U	0.45 U	30 U	23 U	23 U
VINYL ACETATE	19 U	7.6 U	0.19 U	9.5 U	0.19 U	9.5 U	0.19 U	13 U	9.5 U	9.5 U
VINYL CHLORIDE	1300	1000	0.71 J	660	2.2	290	0.2 U	520	1300	22 J
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	950 NJ	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	180 NJ	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	2.1 R	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	0.75 U	NA	NA	0.75 U	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	0.4 U	NA	NA	0.4 U	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	0.38 U	NA	NA	0.38 U	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	0.98 U	NA	NA	0.98 U	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	0.38 U	NA	NA	0.38 U	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-01A	MSA-DMW-01B	MSA-DMW-01S	MSA-DMW-02A	MSA-DMW-02B	MSA-DMW-02S	MSA-DMW-03D	MSA-DMW-03I	MSA-DMW-03S	MSA-DMW-04D
SAMPLE ID	DMW-1A-053018	DMW-1B-053018	DMW-1S-053018	MSA-DMW-2A-	DMW-2B-061918	DMW-2S-061918	DMW-3D-062118	DMW-3I-062118	DMW-3S-062118	DMW-4D-062918
SAMPLE DATE	20180530	20180530	20180530	20180615	20180619	20180619	20180621	20180621	20180621	20180629
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	71	31	8.4	160	0.36 U	220	0.36 U	140	220	12
TOTAL METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	3.1	0.57 U	0.57 U	0.57 U	1.9 J	0.57 U	0.57 U	0.57 U
ARSENIC	10	1.2 J	1.5 J	0.75 U	0.75 U	0.75 U	2.2 J	1.5 J	4.1 J	0.75 U
BARIUM	19	22	44	13	6.4	24	21	17	82	18
BERYLLIUM	0.31 U	0.31 U	0.31 U	2.8	0.31 U	0.49 U	0.31 U	0.84 J	0.31 U	3.9
CADMIUM	260	86	1.4	430	0.21 U	8.8	0.74 J	150	0.21 U	10
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	11	2.3	0.98 U	4.7	0.98 U	2.8	2.6	4.6	4.7	1.3 J
COBALT	27	25	0.41 J	360	1.7	27	5.8	240	0.9 J	130
COPPER	7	15	12	35	1.7 U	5	11	1.8 J	4	48
IRON	31000	20000	600	17000	47 U	5100	1100	37000	2300	220
LEAD	0.45 U	0.57 J	11	2.2	0.45 U	0.45 U	2.3	0.45 U	2.7	0.59 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	3200	3300	22	6900	7.9	1400	33 J	5700 J	160 J	3300 J-
MERCURY	0.18 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	6	1.1 U	2.3 J	1.1 U
NICKEL	52	20	1.8 J	120	2.8	6.7	10	110	3.1	110
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	3 U	2.8 U	1.6 U	9.1	0.89 U	0.89 U	0.92 J	6.1	2 J	18
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.31 J	0.2 U	0.2 U	0.2 U	0.48 J	0.2 U	0.2 U
VANADIUM	0.82 U	0.82 U	1.3 J	11	0.82 U	0.82 U	8.7	9.8	6.4	0.82 U
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	2.8	0.57 U	1.3 J	0.57 U	1.9 J	0.57 U	0.57 U	0.57 U
ARSENIC	10	1.6 J	2.1 J	0.75 U	0.77 J	0.81 J	2.1 J	2.5 J	7	0.75 U
BARIUM	18	23	49	12	6.8	26	19	17	85	19
BERYLLIUM	0.31 U	0.31 U	0.31 U	2.8	0.65 U	0.41 U	0.31 U	0.55 J	0.31 U	4
CADMIUM	260	89	1.2	450	0.28 J	1.3	0.66 J	140	0.21 U	11
CHROMIUM	10	2.4	0.98 U	3	0.98 U	3.1	0.98 U	4.2	1.9 J	0.98 U
COBALT	26	25	0.59 J	360	1.7	30	5.7	260	0.76 J	130
COPPER	6.1	16	6.9	34	1.7 U	1.7 U	11	2.9	1.7 U	50
IRON	30000	19000	910	16000	47 U	5700	180	42000	250	47 J
LEAD	0.45 U	0.55 J	6.8	1.9	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.46 U
MANGANESE	3200 J	3200 J	30 J	7000	4.9 J	1600	31	5900	140	3400 J-
MERCURY	0.13 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.57
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	6.1	1.1 U	4.1 J	1.1 U
NICKEL	53	21	2.1	130	2.4	6.6	9.6	110	1.5 U	110
SELENIUM	3.5 U	2.8 U	1.6 U	8.1	0.89 U	1 J	1.1 J	5.1	2 J	18
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.3 J	0.2 U	0.2 U	0.2 U	0.48 J	0.2 U	0.2 U
VANADIUM	0.82 U	0.82 U	1.5 J	4 J	0.82 U	0.82 U	6.8	8.1	2.6 J	0.82 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-01A DMW-1A-053018 20180530	MSA-DMW-01B DMW-1B-053018 20180530	MSA-DMW-01S DMW-1S-053018 20180530	MSA-DMW-02A MSA-DMW-2A- 20180615	MSA-DMW-02B DMW-2B-061918 20180619	MSA-DMW-02S DMW-2S-061918 20180619	MSA-DMW-03D DMW-3D-062118 20180621	MSA-DMW-03I DMW-3I-062118 20180621	MSA-DMW-03S DMW-3S-062118 20180621	MSA-DMW-04D DMW-4D-062918 20180629
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	0.047 U	NA	0.047 U	NA	NA	NA	NA	NA	0.047 UJ	NA
PERCHLORATE	NA	NA	NA	0.082 U	NA	0.082 U	NA	NA	NA	2.3
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	NA	49 U	NA	NA	2000	NA	NA	660	NA
TPH (C10-C32)	NA	NA	210 U	NA	NA	2300	NA	NA	240 J	NA
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	0.398 U	7.22	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	0.241 U	0.379	NA	NA

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-04I DMW-4I-062918 20180629	MSA-DMW-04S DMW-4S-062918 20180629	MSA-DMW-05I DMW-5I-071018 20180710	MSA-DMW-05S DMW-5S-071018 20180710	MSA-DMW-06D DMW-6D-062018 20180620	MSA-DMW-06I DMW-6I-062018 20180620	MSA-DMW-06S DMW-6S-062018 20180620	MSA-DMW-07D DMW-7D-053118 20180531	MSA-DMW-07I DMW-7I-053118 20180531	MSA-DMW-07S DMW-7S-053118 20180531	MSA-DMW-08I DMW-8I-061918 20180619
VOLATILES (UG/L)											
1,1,1,2-TETRACHLOROETHANE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
1,1,1-TRICHLOROETHANE	24 U	6 U	0.48 U	240 U	0.24 U	0.24 U	0.24 U	0.24 U	3.2 J	80 U	0.6 U
1,1,2,2-TETRACHLOROETHANE	13 U	3.3 U	0.26 U	130 U	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	43 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	41 U	10 U	0.82 U	410 U	0.41 U	0.41 U	0.41 U	0.41 U	3.4 U	140 U	1 U
1,1-DICHLOROETHANE	17 U	4.3 U	0.34 U	170 U	0.17 U	0.17 U	0.17 U	0.17 U	1.4 U	57 U	0.43 U
1,1-DICHLOROETHENE	19 U	16 J	0.38 U	190 U	0.19 U	0.19 U	0.19 U	0.19 U	1.8 J	63 U	1.1 J
1,1-DICHLOROPROPENE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
1,2,3-TRICHLOROBENZENE	54 U	14 U	1.1 U	540 U	0.54 U	0.54 U	0.54 U	0.54 U	4.5 U	180 U	1.4 U
1,2,3-TRICHLOROPROPANE	24 U	6 U	0.48 U	240 U	0.24 U	0.24 U	0.24 U	0.24 U	2 U	80 U	0.6 U
1,2,3-TRIMETHYLBENZENE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
1,2,4-TRICHLOROBENZENE	26 U	6.5 U	0.52 U	260 U	0.26 U	0.26 U	0.26 U	0.26 U	2.3 J	87 U	0.65 U
1,2,4-TRIMETHYLBENZENE	7 U	1.8 U	0.14 U	70 U	0.07 U	0.07 U	0.07 U	0.07 U	0.58 U	23 U	0.18 U
1,2-DIBROMO-3-CHLOROPROPANE	91 U	23 U	1.8 U	910 U	0.91 U	0.91 U	0.91 U	0.91 U	7.6 U	300 U	2.3 U
1,2-DIBROMOETHANE	12 U	3 U	0.24 U	120 U	0.12 U	0.12 U	0.12 U	0.12 U	1 U	40 U	0.3 U
1,2-DICHLOROBENZENE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
1,2-DICHLOROETHANE	21 U	8.5 J	0.91 J	210 U	0.21 U	0.21 U	0.21 U	0.21 U	1.7 U	70 U	2.5
1,2-DICHLOROPROPANE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
1,3-DICHLOROBENZENE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
1,3-DICHLOROPROPANE	21 U	5.3 U	0.42 U	210 U	0.21 U	0.21 U	0.21 U	0.21 U	1.7 U	70 U	0.53 U
1,4-DICHLOROBENZENE	16 U	4 U	0.32 U	160 U	0.16 U	0.16 U	0.16 U	0.16 U	1.3 U	53 U	0.4 U
2,2-DICHLOROPROPANE	31 U	7.8 U	0.62 U	310 U	0.31 U	0.31 U	0.31 U	0.31 U	2.6 U	100 U	0.78 U
2-BUTANONE	120 U	29 U	2.3 U	1200 U	1.2 U	1.2 U	1.2 U	1.2 U	9.7 U	390 U	2.9 U
2-CHLOROETHYL VINYL ETHER	26 UR	6.5 UR	0.52 UR	260 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	2.2 UR	87 UR	0.65 UR
2-CHLOROTOLUENE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
2-HEXANONE	54 U	14 U	1.1 U	540 U	0.54 U	0.54 U	0.54 U	0.54 U	4.5 U	180 U	1.4 U
4-CHLOROTOLUENE	9 U	2.3 U	0.18 U	90 U	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	30 U	0.23 U
4-ISOPROPYLTOLUENE	13 U	3.3 U	0.26 U	130 U	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	43 U	0.33 U
4-METHYL-2-PENTANONE	42 U	11 U	0.84 U	420 U	0.42 U	0.42 U	0.42 U	0.42 U	3.5 U	140 U	1.1 U
ACETONE	540 U	140 U	11 U	5400 U	5.4 U	5.4 U	5.4 U	5.4 U	45 U	1800 U	14 U
BENZENE	13 U	3.3 U	0.26 U	130 U	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	43 U	1.1 J
BROMOBENZENE	12 U	3 U	0.24 U	120 U	0.12 U	0.12 U	0.12 U	0.12 U	1 U	40 U	0.3 U
BROMOCHLOROMETHANE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
BROMODICHLOROMETHANE	17 U	4.3 U	0.34 U	170 U	0.17 U	0.17 U	0.17 U	0.17 U	1.4 U	57 U	0.43 U
BROMOFORM	76 U	19 U	1.5 UJ	760 UJ	0.76 U	0.76 U	0.76 U	0.76 U	6.3 U	250 U	1.9 U
BROMOMETHANE	42 U	11 U	0.84 U	420 U	0.42 U	0.42 U	0.42 U	0.42 U	3.5 U	140 U	1.1 U
CARBON DISULFIDE	28 U	7 U	0.56 J	280 U	0.28 U	0.28 U	0.28 U	0.28 U	2.3 U	93 U	0.7 U
CARBON TETRACHLORIDE	26 U	6.5 U	0.52 U	260 U	0.26 U	0.26 U	0.26 U	0.26 U	2.2 U	87 U	0.65 U
CHLOROBENZENE	14 U	3.5 U	0.66 J	140 U	0.14 U	0.14 U	0.23 J	0.14 U	1.2 U	47 U	0.35 U
CHLORODIBROMOMETHANE	39 U	9.8 U	0.78 UJ	390 UJ	0.39 U	0.39 U	0.39 U	0.39 U	3.2 U	130 U	0.98 U
CHLORODIFLUOROMETHANE	100 UJ	25 UJ	2 UJ	1000 UJ	1 UJ	1 UJ	1 UJ	1 UJ	8.3 UJ	330 UJ	2.5 UJ
CHLOROETHANE	83 U	21 U	1.7 U	830 U	0.83 U	0.83 U	0.83 U	0.83 U	6.9 U	280 U	2.1 U
CHLOROFORM	13 U	3.3 U	0.29 J	130 U	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	43 U	0.88 U
CHLOROMETHANE	20 U	5 U	0.4 U	200 U	0.2 U	0.2 U	0.2 U	0.2 U	1.7 U	67 U	0.5 U
CIS-1,2-DICHLOROETHENE	1100	190	25	6100	0.16 U	0.16 U	5	0.16 J	190	8400	180
CIS-1,3-DICHLOROPROPENE	61 U	15 U	1.2 U	610 U	0.61 U	0.61 U	0.61 U	0.61 U	5.1 U	200 U	1.5 U
DIBROMOMETHANE	9 U	2.3 U	0.18 U	90 U	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	30 U	0.23 U
DICHLORODIFLUOROMETHANE	35 UJ	8.8 UJ	0.7 U	350 U	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	2.9 UJ	120 UJ	0.88 UJ
DIISOPROPYL ETHER	17 U	4.3 U	0.34 U	170 U	0.17 U	0.17 U	0.17 U	0.17 U	1.4 U	57 U	0.43 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-DMW-05I	MSA-DMW-05S	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S	MSA-DMW-08I
SAMPLE ID	DMW-4I-062918	DMW-4S-062918	DMW-5I-071018	DMW-5S-071018	DMW-6D-062018	DMW-6I-062018	DMW-6S-062018	DMW-7D-053118	DMW-7I-053118	DMW-7S-053118	DMW-8I-061918
SAMPLE DATE	20180629	20180629	20180710	20180710	20180620	20180620	20180620	20180531	20180531	20180531	20180619
ETHYL TERT-BUTYL ETHER	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
ETHYLBENZENE	11 U	2.8 U	0.22 U	110 U	0.11 U	0.11 U	0.11 U	0.11 U	0.92 U	37 U	0.28 U
HEXACHLOROBUTADIENE	83 UJ	21 UJ	1.7 UJ	830 UJ	0.83 U	0.83 U	0.83 U	0.83 UJ	6.9 UJ	280 UJ	2.1 U
ISOPROPYLBENZENE	9 U	2.3 U	0.18 U	90 U	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	30 U	0.23 U
M+P-XYLENES	8 U	2 U	0.16 U	80 U	0.08 U	0.08 U	0.08 U	0.08 U	0.67 U	27 U	0.2 U
METHYL TERT-BUTYL ETHER	7 U	1.8 U	0.14 U	70 U	0.07 U	0.07 U	0.07 U	0.07 U	0.58 U	23 U	0.18 U
METHYLENE CHLORIDE	260 U	66 U	5.2 U	2600 U	2.6 U	2.6 U	2.6 U	2.6 U	22 U	870 U	6.6 U
NAPHTHALENE	32 U	8 U	0.64 U	320 U	0.32 U	0.32 U	0.32 U	0.32 U	2.7 U	110 U	0.8 U
N-BUTYLBENZENE	14 UJ	3.5 UJ	0.28 UJ	140 UJ	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
N-PROPYLBENZENE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
O-XYLENE	9 U	2.3 U	0.18 U	90 U	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	30 U	0.23 U
SEC-BUTYLBENZENE	13 U	3.3 U	0.26 U	130 U	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	43 U	0.33 U
STYRENE	10 U	2.5 U	0.2 U	100 U	0.1 U	0.1 U	0.1 U	0.1 U	0.83 U	33 U	0.25 U
TERT-AMYL METHYL ETHER	11 U	2.8 U	0.22 U	110 U	0.11 U	0.11 U	0.11 U	0.11 U	0.92 U	37 U	0.28 U
TERT-BUTYLBENZENE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
TERTIARY-BUTYL ALCOHOL	170 U	42 U	11 J	1700 UJ	1.7 U	1.7 U	2.8 U	1.7 U	14 U	560 U	4.2 U
TETRACHLOROETHENE	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
TOLUENE	14 U	3.5 U	0.28 U	140 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	47 U	0.35 U
TOTAL XYLENES	15 U	3.8 U	0.3 U	150 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	50 U	0.38 U
TRANS-1,2-DICHLOROETHENE	19 U	4.8 U	1.3 J	190 U	0.19 U	0.19 U	0.43 J	0.19 U	6.8 J	63 J	1.9 J
TRANS-1,3-DICHLOROPROPENE	67 U	17 U	1.3 U	670 U	0.67 U	0.67 U	0.67 U	0.67 U	5.6 U	220 U	1.7 U
TRICHLOROETHENE	2100	770	26	19000	0.1 U	0.1 U	0.1 U	0.24 J	77	890	180
TRICHLOROFLUOROMETHANE	45 U	11 U	0.9 U	450 U	0.45 U	0.45 U	0.45 U	0.45 U	3.7 U	150 U	1.1 U
VINYL ACETATE	19 U	4.8 U	0.38 UJ	190 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ	1.6 UJ	63 UJ	0.48 U
VINYL CHLORIDE	210	58	3.5	350 J	0.2 U	0.2 U	0.2 U	0.2 U	40	2100	65
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)											
BROMOACETIC ACID	NA	NA	NA	0.75 U	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	0.4 U	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	0.38 U	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	2 J	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	0.38 U	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-04I	MSA-DMW-04S	MSA-DMW-05I	MSA-DMW-05S	MSA-DMW-06D	MSA-DMW-06I	MSA-DMW-06S	MSA-DMW-07D	MSA-DMW-07I	MSA-DMW-07S	MSA-DMW-08I
SAMPLE ID	DMW-4I-062918	DMW-4S-062918	DMW-5I-071018	DMW-5S-071018	DMW-6D-062018	DMW-6I-062018	DMW-6S-062018	DMW-7D-053118	DMW-7I-053118	DMW-7S-053118	DMW-8I-061918
SAMPLE DATE	20180629	20180629	20180710	20180710	20180620	20180620	20180620	20180531	20180531	20180531	20180619
SEMIVOLATILES (UG/L)											
1,4-DIOXANE	31	16	2.3	26	0.36 U	0.36 U	0.34 U	0.36 U	4.5	54	24
TOTAL METALS (UG/L)											
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	1 J	1.6 J	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	1.7 J	0.75 U	0.75 U	0.75 U	0.98 J	4.8 J	0.75 U	3.3 J	2 J	0.75 U
BARIUM	13	9.4	16	14	44	16	48	40	9.7	11	15
BERYLLIUM	2.6	0.79 U	3	1.2	0.82 J	3.9	0.31 U	0.73 U	3.3	0.39 U	4.7
CADMIUM	16	3.6	4.5	1.6	0.69 J	4.6	0.21 U	0.27 J	6.6	0.21 U	64
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	3.5	0.98 U	4.7	2	0.98 U	3.2	0.98 U	0.98 U	5	0.98 U	5.7
COBALT	100	40	96	82	35	59	5.6	11	48	12	140
COPPER	80	1.7 U	150	20	8.3	23	1.7 U	9.3	24	2	1700
IRON	25000	20000	660	63000	340	28000	130000	47 U	30000	22000	47 U
LEAD	1.3	1.2	3.6	0.72 J	0.45 U	1.6	0.45 U	3.5	5	0.45 U	4.3
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	4700 J-	3300 J-	1500	7000	920 J	4600 J	1300 J	35	2200	6400	4900
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	2.9	0.45	0.13 U	0.84	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	92	14	88	53	34	52	2.5	18	54	10	95
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	8.2	2.7 J	6.7	9.2	1.5 J	1.1 J	0.89 U	0.89 U	8.5	1.7 J	10
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34 J	0.2 U	0.2 U	0.2 U	0.2 U	0.24 J
VANADIUM	7.1	1.1 J	0.82 U	4.3 J	0.82 U	1.5 J	0.82 U	0.82 U	11	0.82 U	0.82 U
DISSOLVED METALS (UG/L)											
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	1.3 J	0.75 U	0.75 U	0.75 U	0.77 J	4.4 J	0.75 U	3.4 J	1.6 J	0.75 U
BARIUM	13	9.3	16	13	46	15	47	40	9.7	12	13
BERYLLIUM	1.9	0.54 U	2.9	1.3	0.82 J	3.9	0.31 U	0.71 U	3.3	0.36 U	4.5
CADMIUM	16	2.1	4.7	1.5	0.68 J	3	0.21 U	0.22 J	6.5	0.21 U	63
CHROMIUM	3	0.98 U	4.8	2	0.98 U	1.6 J	0.98 U	0.98 U	4.4	0.98 U	3.4
COBALT	100	40	100	80	38	62	5.5	11	48	12	140
COPPER	54	1.7 U	160	24	16	8.3	1.7 U	9.7	22	3.6	820
IRON	24000	18000	670	63000	420	29000	120000	47 U	30000	19000	900
LEAD	1.1	0.46 U	3.6	0.82 J	0.45 U	0.83 J	0.45 U	3.3	3.8	0.45 U	4.1
MANGANESE	4700 J-	3300 J-	1600	6900	1000	4900	1300	34	2200	6400	4600
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	2.2	0.13 U	0.13 U	0.67	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	90	14	93	52	37	54	2.4	18	54	11	95
SELENIUM	7.8	2.5 J	6.8	8.6	1.7 J	1.1 J	0.89 U	0.89 U	8.4	2.4 J	9.8
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26 J	0.2 U	0.2 U	0.2 U	0.2 U	0.22 J
VANADIUM	6.3	0.82 U	0.82 U	4.8 J	0.82 U	0.82 U	0.82 U	0.82 U	11	0.82 U	0.82 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-DMW-04I DMW-4I-062918 20180629	MSA-DMW-04S DMW-4S-062918 20180629	MSA-DMW-05I DMW-5I-071018 20180710	MSA-DMW-05S DMW-5S-071018 20180710	MSA-DMW-06D DMW-6D-062018 20180620	MSA-DMW-06I DMW-6I-062018 20180620	MSA-DMW-06S DMW-6S-062018 20180620	MSA-DMW-07D DMW-7D-053118 20180531	MSA-DMW-07I DMW-7I-053118 20180531	MSA-DMW-07S DMW-7S-053118 20180531	MSA-DMW-08I DMW-8I-061918 20180619
MISCELLANEOUS PARAMETERS (UG/L)											
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	0.047 U
PERCHLORATE	0.13 J	NA	0.082 U	NA	0.13 J	NA	NA	NA	0.082 U	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)											
TPH (C06-C10)	NA	520	NA	15000	NA	NA	49 U	NA	NA	2300	NA
TPH (C10-C32)	NA	360 J	NA	630	NA	NA	480	NA	NA	910	NA
RADIONUCLIDES (PCI/L)											
RADIUM-228	NA	NA	NA	NA	6.76	9.34	1.06	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	2.85	3.66	0.579	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I	MSA-DM
SAMPLE ID	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818	DMW-11S-060818
SAMPLE DATE	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608	20180608
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	9.3 U	NA	7 U	NA	56 U	NA	0.56 U	0.14 U	2.3 U	28 U
1,1,1-TRICHLOROETHANE	16 U	NA	12 U	NA	96 U	NA	0.96 U	0.24 U	4 U	48 U
1,1,2,2-TETRACHLOROETHANE	8.7 U	NA	6.5 U	NA	52 U	NA	0.52 U	0.13 U	2.2 U	26 U
1,1,2-TRICHLOROTRIFLUOROETHANE	27 U	NA	21 U	NA	160 U	NA	1.6 UJ	0.41 UJ	6.8 U	82 U
1,1-DICHLOROETHANE	11 U	NA	8.5 U	NA	68 U	NA	0.68 U	0.17 U	2.8 U	34 U
1,1-DICHLOROETHENE	13 U	NA	9.5 U	NA	76 U	NA	2 J	0.19 U	3.2 J	59 J
1,1-DICHLOROPROPENE	9.3 U	NA	7 U	NA	56 U	NA	0.56 U	0.14 U	2.3 U	28 U
1,2,3-TRICHLOROBENZENE	36 U	NA	27 U	NA	220 U	NA	2.2 U	0.54 U	9 UJ	110 UJ
1,2,3-TRICHLOROPROPANE	16 U	NA	12 U	NA	96 U	NA	0.96 U	0.24 U	4 U	48 U
1,2,3-TRIMETHYLBENZENE	9.3 U	NA	7 U	NA	66 J	NA	0.56 U	0.14 U	2.3 UJ	28 U
1,2,4-TRICHLOROBENZENE	17 U	NA	13 U	NA	100 U	NA	1 U	0.26 U	4.3 U	52 U
1,2,4-TRIMETHYLBENZENE	4.7 U	NA	3.5 U	NA	170 J	NA	0.28 U	0.07 U	1.2 U	14 U
1,2-DIBROMO-3-CHLOROPROPANE	61 U	NA	46 U	NA	360 U	NA	3.6 U	0.91 U	15 U	180 U
1,2-DIBROMOETHANE	8 U	NA	6 U	NA	48 U	NA	0.48 U	0.12 U	2 U	24 U
1,2-DICHLOROBENZENE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	1.6	2.5 U	30 U
1,2-DICHLOROETHANE	14 U	NA	15 J	NA	84 U	NA	2.9 J	0.21 U	3.5 U	42 U
1,2-DICHLOROPROPANE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
1,3-DICHLOROBENZENE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
1,3-DICHLOROPROPANE	14 U	NA	11 U	NA	84 U	NA	0.84 U	0.56 J	3.5 U	42 U
1,4-DICHLOROBENZENE	11 U	NA	8 U	NA	64 U	NA	0.64 U	0.39 J	2.7 U	32 U
2,2-DICHLOROPROPANE	21 U	NA	16 U	NA	120 U	NA	1.2 U	0.31 U	5.2 U	62 U
2-BUTANONE	77 U	NA	58 U	NA	460 U	NA	4.6 U	1.2 U	19 U	230 U
2-CHLOROETHYL VINYL ETHER	17 UR	NA	13 UR	NA	100 UR	NA	1 UR	0.26 UR	4.3 UR	52 UR
2-CHLOROTOLUENE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
2-HEXANONE	36 U	NA	27 U	NA	220 U	NA	2.2 U	0.54 U	9 U	110 U
4-CHLOROTOLUENE	6 U	NA	4.5 U	NA	36 U	NA	0.36 U	0.09 U	1.5 U	18 U
4-ISOPROPYLTOLUENE	8.7 U	NA	6.5 U	NA	52 U	NA	0.52 U	0.13 U	2.2 U	26 U
4-METHYL-2-PENTANONE	28 U	NA	21 U	NA	170 U	NA	1.7 U	0.42 U	7 U	84 U
ACETONE	360 U	NA	270 U	NA	2200 U	NA	22 U	5.4 U	90 U	1100 U
BENZENE	11 J	NA	17 J	NA	170 J	NA	0.57 J	2.1	2.2 U	26 U
BROMOBENZENE	8 U	NA	6 U	NA	48 U	NA	0.48 U	0.12 U	2 U	24 U
BROMOCHLOROMETHANE	9.3 U	NA	7 U	NA	56 U	NA	0.56 U	0.14 U	2.3 U	28 U
BROMODICHLOROMETHANE	11 U	NA	8.5 U	NA	68 U	NA	0.68 U	0.17 U	2.8 U	34 U
BROMOFORM	51 U	NA	38 U	NA	300 U	NA	3 U	0.76 U	13 UJ	150 U
BROMOMETHANE	28 U	NA	21 U	NA	170 U	NA	1.7 U	0.42 U	7 U	84 U
CARBON DISULFIDE	19 U	NA	14 U	NA	110 U	NA	1.1 U	0.28 U	4.7 U	56 U
CARBON TETRACHLORIDE	17 U	NA	17 J	NA	100 U	NA	4.4	0.26 U	4.3 U	52 U
CHLOROBENZENE	9.3 U	NA	7 U	NA	110 J	NA	0.56 U	0.14 U	2.3 U	28 U
CHLORODIBROMOMETHANE	26 U	NA	20 U	NA	160 U	NA	1.6 U	0.39 U	6.5 U	78 U
CHLORODIFLUOROMETHANE	67 UJ	NA	50 UJ	NA	400 UJ	NA	4 UJ	1 UJ	17 UJ	200 UJ
CHLOROETHANE	55 U	NA	42 U	NA	330 U	NA	3.3 U	0.83 U	14 U	170 U
CHLOROFORM	120	NA	29 J	NA	52 U	NA	3.7 J	0.13 U	2.6 U	26 U
CHLOROMETHANE	13 U	NA	10 U	NA	80 U	NA	0.8 U	0.2 U	3.3 U	40 U
CIS-1,2-DICHLOROETHENE	380	NA	1300	NA	460	NA	110	0.22 J	280	4700
CIS-1,3-DICHLOROPROPENE	41 U	NA	31 U	NA	240 U	NA	2.4 U	0.61 U	10 U	120 U
DIBROMOMETHANE	6 UJ	NA	4.5 U	NA	36 U	NA	0.36 U	0.09 U	1.5 UJ	18 UJ
DICHLORODIFLUOROMETHANE	23 U	NA	18 UJ	NA	140 U	NA	1.4 UJ	0.57 J	5.8 U	70 UJ
DIISOPROPYL ETHER	11 U	NA	8.5 U	NA	68 U	NA	0.68 U	0.17 U	2.8 U	34 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I	MSA-DM
SAMPLE ID	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818	DMW-11S-060818
SAMPLE DATE	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608	20180608
ETHYL TERT-BUTYL ETHER	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
ETHYLBENZENE	7.3 U	NA	5.5 U	NA	1200	NA	0.44 U	0.11 U	1.8 U	22 U
HEXACHLOROBUTADIENE	55 UJ	NA	42 UJ	NA	330 UJ	NA	3.3 U	0.83 U	14 U	170 UJ
ISOPROPYLBENZENE	6 U	NA	4.5 U	NA	36 U	NA	0.36 U	0.13 J	1.5 U	18 U
M+P-XYLENES	5.3 U	NA	4 U	NA	14000	NA	0.32 U	0.17 J	1.3 U	16 U
METHYL TERT-BUTYL ETHER	4.7 U	NA	3.5 U	NA	28 U	NA	0.28 U	0.07 U	1.2 U	14 U
METHYLENE CHLORIDE	170 U	NA	130 U	NA	1000 U	NA	10 U	2.6 U	44 U	520 U
NAPHTHALENE	21 U	NA	16 U	NA	130 U	NA	1.3 U	0.32 U	5.3 U	64 U
N-BUTYLBENZENE	9.3 U	NA	7 U	NA	56 U	NA	0.56 U	0.14 U	2.3 UJ	28 U
N-PROPYLBENZENE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
O-XYLENE	6 U	NA	4.5 U	NA	1400	NA	0.36 U	0.09 U	1.5 U	18 U
SEC-BUTYLBENZENE	8.7 U	NA	6.5 U	NA	52 U	NA	0.52 U	0.86 J	2.2 U	26 U
STYRENE	6.7 U	NA	5 U	NA	40 U	NA	0.4 U	0.1 U	1.7 U	20 U
TERT-AMYL METHYL ETHER	7.3 U	NA	5.5 U	NA	44 U	NA	0.44 U	0.11 U	1.8 U	22 U
TERT-BUTYLBENZENE	9.3 U	NA	7 U	NA	56 U	NA	0.56 U	0.77 J	2.3 U	28 U
TERTIARY-BUTYL ALCOHOL	110 U	NA	85 U	NA	680 U	NA	6.8 U	1.7 U	28 U	340 U
TETRACHLOROETHENE	10 U	NA	7.5 U	NA	60 U	NA	0.6 U	0.15 U	2.5 U	30 U
TOLUENE	9.3 U	NA	7 U	NA	1600	NA	0.56 U	0.14 U	2.3 U	58 J
TOTAL XYLENES	10 U	NA	7.5 U	NA	15000	NA	0.6 U	0.17 J	2.5 U	30 U
TRANS-1,2-DICHLOROETHENE	13 U	NA	9.5 U	NA	76 U	NA	1.1 J	1.9	3.2 U	38 U
TRANS-1,3-DICHLOROPROPENE	45 U	NA	34 U	NA	270 U	NA	2.7 U	0.67 U	11 U	130 U
TRICHLOROETHENE	2200 J	NA	590	NA	40 U	NA	170	0.27 J	130	780
TRICHLOROFLUOROMETHANE	30 U	NA	23 U	NA	180 U	NA	1.8 UJ	0.45 UJ	7.5 U	90 U
VINYL ACETATE	13 UJ	NA	9.5 UJ	NA	76 UJ	NA	0.76 U	0.19 U	3.2 UJ	38 UJ
VINYL CHLORIDE	50 J	NA	500	NA	3700	NA	24	0.8 J	64	4700
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	3.2 NJ	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	0.1 U	NA	8.3	NA	140	NA	NA	NA	NA	140
ETHENE	16	NA	46	NA	5200	NA	NA	NA	NA	700
METHANE	390	NA	620	NA	2600	NA	NA	NA	NA	1100
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I	MSA-DM
SAMPLE ID	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818	DMW-11S-060818
SAMPLE DATE	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608	20180608
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	39	NA	79	NA	29	NA	13	7.4	0.37 U	5.4
TOTAL METALS (UG/L)										
ANTIMONY	0.57 U	NA	0.57 U	NA	0.57 U	NA	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	5.7	NA	1.3 J	NA	1.4 J	NA	14	15	0.75 U	6.4
BARIUM	40	NA	34	NA	75	NA	50	21	3.8 J	54
BERYLLIUM	0.66 J	NA	1.7	NA	0.31 U	NA	0.31 U	0.31 U	0.37 U	0.46 U
CADMIUM	0.21 U	NA	2.7	NA	0.21 U	NA	0.32 J	0.42 J	0.21 U	0.21 U
CALCIUM	8200	NA	60000	NA	81000	NA	NA	NA	NA	97000
CHROMIUM	0.98 U	NA	0.98 U	NA	1.1 J	NA	3.1 J-	1.5 J	0.98 U	1.3 J
COBALT	320	NA	270	NA	0.19 U	NA	11 J	3.3 J	1.1	8.7
COPPER	2.2	NA	7	NA	1.7 U	NA	4 J	1.7 UJ	13	3
IRON	13000	NA	6000	NA	22000	NA	10000	57000	180	28000
LEAD	0.53 J	NA	3.2	NA	0.45 U	NA	1.4 J-	0.45 UJ	2.2	0.45 U
MAGNESIUM	5900	NA	28000	NA	53000	NA	NA	NA	NA	25000
MANGANESE	2200	NA	4600	NA	2400	NA	260 J	1400 J	27	610
MERCURY	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	0.13 U	0.17 J	0.13 U
MOLYBDENUM	1.1 U	NA	1.1 U	NA	1.1 U	NA	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	42	NA	70	NA	1.5 U	NA	7.7 J	1.5 UJ	3.4	3.6
POTASSIUM	840 J	NA	12000	NA	9100	NA	NA	NA	NA	6100
SELENIUM	1.1 J	NA	3.4 J	NA	1.6 J	NA	1.1 J	1.3 J	0.89 U	0.89 U
SILICON DIOXIDE	7600	NA	10000	NA	4900	NA	NA	NA	NA	3300
SILVER	0.053 U	NA	0.053 U	NA	0.053 U	NA	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	30000	NA	81000	NA	110000	NA	NA	NA	NA	6200
THALLIUM	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	1.9 J	NA	0.82 U	NA	10	NA	6	0.82 U	0.82 U	0.82 U
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	NA	0.57 U	NA	0.57 U	NA	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	5.1	NA	0.92 J	NA	1.3 J	NA	15	15	0.82 J	6.7
BARIUM	39	NA	34	NA	77	NA	50	21	3.9 J	53
BERYLLIUM	0.6 J	NA	1.9	NA	0.31 U	NA	0.31 U	0.31 U	0.33 U	0.38 U
CADMIUM	0.21 U	NA	2.9	NA	0.21 U	NA	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	NA	0.98 U	NA	1.1 J	NA	1.4 J	0.98 UJ	0.98 U	1.2 J
COBALT	310	NA	290	NA	0.19 U	NA	11 J	3.2 J	1.2	7.7
COPPER	1.7 U	NA	5.4	NA	1.7 U	NA	1.7 UJ	1.7 UJ	13	1.7 U
IRON	12000	NA	6700	NA	23000	NA	11000	55000	180	29000
LEAD	0.45 U	NA	2.6	NA	0.45 U	NA	0.45 UJ	0.45 UJ	2.2	0.45 U
MANGANESE	2200	NA	4900	NA	2500	NA	280 J	1300 J	28	600
MERCURY	0.13 U	NA	0.13 U	NA	0.13 U	NA	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	NA	1.1 U	NA	1.1 U	NA	1.1 U	1.1 U	1.1 U	2.8 J
NICKEL	41	NA	73	NA	1.5 U	NA	7.6 J	1.5 UJ	3.3	3.4
SELENIUM	1.2 J	NA	3.9 J	NA	1.6 J	NA	0.89 U	1.4 J	0.89 U	0.89 U
SILVER	0.053 U	NA	0.053 U	NA	0.053 U	NA	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	NA	0.2 U	NA	0.2 U	NA	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	1.8 J	NA	0.82 U	NA	10	NA	3.6 J	0.82 U	0.82 U	0.82 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-DMW-09D		MSA-DMW-09I		MSA-DMW-09S		MSA-DMW-10I	MSA-DMW-10S	MSA-DMW-11I	MSA-DM
SAMPLE ID	DMW-9D-060418	DMW-9D-062218	DMW-9I-060418	DMW-9I-062218	DMW-9S-060418	DMW-9S-062218	DMW-10I-052418	DMW-10S-052418	DMW-11I-060818	DMW-11S-060818
SAMPLE DATE	20180604	20180622	20180604	20180622	20180604	20180622	20180524	20180524	20180608	20180608
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	2.6 U	NA	82	NA	500	NA	NA	NA	NA	270
AMMONIA	0.46 U	NA	5.3	NA	2	NA	NA	NA	NA	2.8
CHLORIDE	52	NA	100	NA	100	NA	NA	NA	NA	27
DISSOLVED ORGANIC CARBON	NA	2.4	NA	9.6	NA	21	NA	NA	NA	NA
NITRATE-N	0.014 U	NA	0.099 J	NA	0.014 U	NA	NA	NA	NA	0.014 U
NITRITE-N	0.014 U	NA	0.014 U	NA	0.014 U	NA	NA	NA	NA	0.014 U
PHOSPHATE	0.11 U	NA	0.11 U	NA	0.34	NA	NA	NA	NA	0.11 U
SULFATE	62	NA	300	NA	38	NA	NA	NA	NA	65
TOTAL DISSOLVED SOLIDS	180	NA	660	NA	700	NA	NA	NA	NA	430
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	NA	NA	NA	40000	NA	NA	90 J	NA	3600
TPH (C10-C32)	NA	NA	NA	NA	2000	NA	NA	1600	NA	1300
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	W-11S DMW-11S-062218 20180622	MSA-MW-03 MSA-MW-3-052918 20180529	MSA-MW-04 MSA-MW-4-051518 20180515	MSA-MW-05 MSA-MW-5-053118 20180531	MSA-MW-06 MSA-MW-6-061418 20180614	MSA-MW-14D MSA-MW-14D- 20180622	MSA-MW-14I MSA-MW-14I-062218 20180622	MSA-MW-15D MSA-MW-15D- 20180525	MSA-MW-15I MSA-MW-15I-052518 20180525	MSA-MW-16D DMW-16D-070218 20180702
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	NA	0.14 U	0.46 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
1,1,1-TRICHLOROETHANE	NA	0.24 U	0.23 U	30 U	0.24 U	0.24 U	8 U	0.24 U	0.24 U	0.24 U
1,1,2,2-TETRACHLOROETHANE	NA	0.13 U	0.32 U	16 U	0.13 U	0.13 U	4.3 U	0.13 U	0.13 U	0.13 U
1,1,2-TRICHLOROTRIFLUOROETHANE	NA	0.41 U	0.41 UJ	51 U	0.41 U	0.41 U	14 U	0.41 U	0.41 U	0.41 U
1,1-DICHLOROETHANE	NA	0.17 U	0.25 U	21 U	0.17 U	0.17 U	5.7 U	0.17 U	0.17 U	0.17 U
1,1-DICHLOROETHENE	NA	0.19 U	0.27 U	24 U	0.19 U	0.19 U	6.3 U	0.19 U	0.19 U	0.19 UJ
1,1-DICHLOROPROPENE	NA	0.14 U	0.28 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
1,2,3-TRICHLOROBENZENE	NA	0.54 U	0.35 U	68 U	0.54 U	0.54 U	18 U	0.54 U	0.54 U	0.54 U
1,2,3-TRICHLOROPROPANE	NA	0.24 U	0.54 U	30 U	0.24 U	0.24 U	8 U	0.24 U	0.24 U	0.24 U
1,2,3-TRIMETHYLBENZENE	NA	0.14 U	0.22 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	NA	0.26 U	0.27 U	33 U	0.26 U	0.26 U	8.7 U	0.26 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	NA	0.07 U	0.24 U	8.8 U	0.07 U	0.07 U	2.3 U	0.07 U	0.07 U	0.07 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.91 U	0.47 U	110 U	0.91 U	0.91 U	30 U	0.91 U	0.91 U	0.91 U
1,2-DIBROMOETHANE	NA	0.12 U	0.23 U	15 U	0.12 U	0.12 U	4 U	0.12 U	0.12 U	0.12 U
1,2-DICHLOROBENZENE	NA	0.15 U	0.26 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
1,2-DICHLOROETHANE	NA	0.21 U	0.74 J	26 U	0.21 U	0.21 U	7 U	0.21 U	0.21 U	0.21 U
1,2-DICHLOROPROPANE	NA	0.15 U	0.3 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROBENZENE	NA	0.15 U	0.32 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
1,3-DICHLOROPROPANE	NA	0.21 U	0.29 U	26 U	0.21 U	0.21 U	7 U	0.21 U	0.21 U	0.21 U
1,4-DICHLOROBENZENE	NA	0.16 U	0.23 U	20 U	0.16 U	0.16 U	5.3 U	0.16 U	0.16 U	0.16 U
2,2-DICHLOROPROPANE	NA	0.31 U	0.34 U	39 U	0.31 U	0.31 U	10 U	0.31 U	0.31 U	0.31 U
2-BUTANONE	NA	1.2 U	1 U	150 U	1.2 U	1.5 J	39 U	1.2 U	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	NA	0.26 UR	0.65 UR	33 UR	0.26 UR	0.26 UR	8.7 UR	0.26 UR	0.26 UR	0.26 UR
2-CHLOROTOLUENE	NA	0.15 U	0.28 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
2-HEXANONE	NA	0.54 U	1.2 U	68 U	0.54 U	0.54 U	18 U	0.54 U	0.54 U	0.54 U
4-CHLOROTOLUENE	NA	0.09 U	0.23 U	11 U	0.09 U	0.09 U	3 U	0.09 U	0.09 U	0.09 U
4-ISOPROPYLTOLUENE	NA	0.13 U	0.29 U	16 U	0.13 U	0.13 U	4.3 U	0.13 U	0.13 U	0.13 U
4-METHYL-2-PENTANONE	NA	0.42 U	0.71 U	53 U	0.42 U	0.42 U	14 U	0.42 U	0.42 U	0.42 U
ACETONE	NA	5.4 U	2.5 U	680 U	5.4 U	8.9 J	180 U	5.4 U	5.4 U	5.4 U
BENZENE	NA	0.13 U	0.54 J	16 U	0.13 U	0.13 U	6.3 J	0.13 U	0.13 U	0.13 U
BROMOBENZENE	NA	0.12 U	0.31 U	15 U	0.12 U	0.12 U	4 U	0.12 U	0.12 U	0.12 U
BROMOCHLOROMETHANE	NA	0.14 U	0.47 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
BROMODICHLOROMETHANE	NA	0.17 U	0.3 U	21 U	0.17 U	0.17 U	5.7 U	0.17 U	0.17 U	0.17 U
BROMOFORM	NA	0.76 U	0.43 U	95 U	0.76 U	0.76 U	25 U	0.76 U	0.76 U	0.76 U
BROMOMETHANE	NA	0.42 U	0.42 U	53 U	0.42 U	0.42 U	14 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	NA	0.28 U	0.34 U	35 U	0.28 U	0.28 U	9.3 U	0.28 U	0.28 U	0.28 U
CARBON TETRACHLORIDE	NA	0.26 U	0.35 U	33 U	0.26 U	0.26 U	8.7 U	0.26 U	0.26 U	0.26 U
CHLOROBENZENE	NA	0.14 U	1	18 U	0.14 U	0.14 U	67	0.14 U	0.14 U	0.14 U
CHLORODIBROMOMETHANE	NA	0.39 U	0.25 U	49 U	0.39 U	0.39 U	13 U	0.39 U	0.39 U	0.39 U
CHLORODIFLUOROMETHANE	NA	1 UJ	1 UJ	130 UJ	1 UJ	1 UJ	33 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	NA	0.83 U	0.41 U	100 U	0.83 U	0.83 U	28 U	0.83 U	0.83 U	0.83 U
CHLOROFORM	NA	0.13 U	0.31 U	16 U	0.13 U	0.13 U	4.3 U	0.13 U	0.13 U	0.13 U
CHLOROMETHANE	NA	0.2 U	0.43 U	25 U	0.2 U	0.2 U	6.7 U	0.2 U	0.2 U	0.2 U
CIS-1,2-DICHLOROETHENE	NA	1.3	1.3	3400	0.49 U	0.16 U	260	0.16 U	0.26 J	0.16 U
CIS-1,3-DICHLOROPROPENE	NA	0.61 U	0.26 U	76 U	0.61 U	0.61 UJ	20 UJ	0.61 U	0.61 U	0.61 UJ
DIBROMOMETHANE	NA	0.09 U	0.46 U	11 U	0.09 U	0.09 U	3 U	0.09 U	0.09 U	0.09 U
DICHLORODIFLUOROMETHANE	NA	0.35 U	0.5 UJ	44 UJ	0.35 UJ	0.35 UJ	12 UJ	0.35 U	0.35 U	0.35 UJ
DIISOPROPYL ETHER	NA	0.17 U	0.44 U	21 U	0.17 U	0.17 U	5.7 U	0.17 U	0.17 U	0.17 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	W-11S	MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I	MSA-MW-16D
SAMPLE ID	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-20180622	MSA-MW-14I-062218	MSA-MW-15D-20180525	MSA-MW-15I-052518	DMW-16D-070218
SAMPLE DATE	20180622	20180529	20180515	20180531	20180614		20180622	20180525	20180525	20180702
ETHYL TERT-BUTYL ETHER	NA	0.15 U	0.35 U	19 U	0.15 U	0.15 UJ	5 UJ	0.15 U	0.15 U	0.15 U
ETHYLBENZENE	NA	0.11 U	0.26 U	14 U	0.11 U	0.11 U	3.7 U	0.11 U	0.11 U	0.11 U
HEXACHLOROBUTADIENE	NA	0.83 U	0.36 U	100 UJ	0.83 U	0.83 U	28 U	0.83 U	0.83 U	0.83 UJ
ISOPROPYLBENZENE	NA	0.09 U	0.21 U	11 U	0.09 U	0.09 U	3 U	0.09 U	0.09 U	0.09 U
M+P-XYLENES	NA	0.08 U	0.24 U	10 U	0.08 U	0.08 U	2.7 U	0.08 U	0.08 U	0.08 U
METHYL TERT-BUTYL ETHER	NA	0.07 U	0.27 U	8.8 U	0.07 U	0.07 U	2.3 U	0.07 U	0.07 U	0.07 U
METHYLENE CHLORIDE	NA	2.6 U	0.53 U	330 U	2.6 U	2.6 U	87 U	2.6 U	2.6 U	2.6 U
NAPHTHALENE	NA	0.32 U	0.25 U	40 U	0.32 U	0.32 U	11 U	0.32 U	0.32 U	0.32 U
N-BUTYLBENZENE	NA	0.14 U	0.21 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 UJ
N-PROPYLBENZENE	NA	0.15 U	0.45 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
O-XYLENE	NA	0.09 U	0.28 U	11 U	0.09 U	0.09 U	3 U	0.09 U	0.09 U	0.09 U
SEC-BUTYLBENZENE	NA	0.13 U	0.27 U	16 U	0.13 U	0.13 U	4.3 U	0.13 U	0.13 U	0.13 U
STYRENE	NA	0.1 U	0.23 U	13 U	0.1 U	0.1 U	3.3 U	0.1 U	0.1 U	0.1 U
TERT-AMYL METHYL ETHER	NA	0.11 U	0.29 U	14 U	0.11 U	0.11 UJ	3.7 UJ	0.11 U	0.11 U	0.11 U
TERT-BUTYLBENZENE	NA	0.14 U	0.26 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
TERTIARY-BUTYL ALCOHOL	NA	1.7 U	4.6 UJ	210 U	1.7 UJ	1.7 U	56 U	1.7 U	1.7 U	1.7 U
TETRACHLOROETHENE	NA	0.15 U	0.3 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
TOLUENE	NA	0.14 U	0.23 U	18 U	0.14 U	0.14 U	4.7 U	0.14 U	0.14 U	0.14 U
TOTAL XYLENES	NA	0.15 U	0.24 U	19 U	0.15 U	0.15 U	5 U	0.15 U	0.15 U	0.15 U
TRANS-1,2-DICHLOROETHENE	NA	0.19 U	0.84 J	64 J	0.19 U	0.19 U	6.3 U	0.19 U	0.19 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	NA	0.67 U	0.31 U	84 U	0.67 U	0.67 U	22 U	0.67 U	0.67 U	0.67 U
TRICHLOROETHENE	NA	0.15 J	0.33 U	13 U	0.1 U	0.1 U	3.3 U	0.1 U	0.6 J	0.1 U
TRICHLOROFLUOROMETHANE	NA	0.45 U	0.5 U	56 U	0.45 U	0.45 U	15 U	0.45 U	0.45 U	0.45 U
VINYL ACETATE	NA	0.19 U	0.28 UJ	24 UJ	0.19 U	0.19 U	6.3 U	0.19 U	0.19 U	0.19 UJ
VINYL CHLORIDE	NA	0.27 J	2	590	0.2 U	0.2 U	740	0.2 U	0.2 U	0.2 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	2 NJ	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	W-11S	MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I	MSA-MW-16D
SAMPLE ID	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-20180622	MSA-MW-14I-062218	MSA-MW-15D-20180525	MSA-MW-15I-052518	DMW-16D-070218
SAMPLE DATE	20180622	20180529	20180515	20180531	20180614		20180622		20180525	20180702
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	NA	0.37 U	12	6.2	0.39 U	0.36 U	32	0.36 U	0.36 U	0.34 U
TOTAL METALS (UG/L)										
ANTIMONY	NA	0.57 U	0.76 J	0.57 U	0.57 U	0.99 J	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	NA	1.2 J	0.75 U	2.8 J	1.5 J	1.6 J	21	0.75 U	2.2 J	0.75 U
BARIUM	NA	26	46	22	11	130	15	4.1 J	23	5.7
BERYLLIUM	NA	0.4 J	0.31 U	0.31 U	0.71 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	NA	0.21 U	0.32 J	0.21 U	0.77 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	1.4 J	1.1 J	0.98 U	0.98 U	12	0.98 U	1.2 J	0.98 U	0.98 U
COBALT	NA	0.8 J	1.9	0.65 J	37	1	8.4	12	2.4	8.2
COPPER	NA	14	2.9	1.7 U	3 J+	27	1.7 U	5.1	4.3	5.8
IRON	NA	2400	4600	37000	84000	280	65000	390	1000	150
LEAD	NA	1.4	0.76 J	0.45 U	0.45 U	0.49 J	0.45 U	0.45 U	0.45 U	0.45 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	NA	62	1100	1500	9000	2.8 J	1600 J	30	1400	26
MERCURY	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 U
MOLYBDENUM	NA	1.1 U	5.3	2.9 J	1.1 U	14	1.1 U	1.1 U	3.4 J	1.1 U
NICKEL	NA	1.5 U	7.8	1.5 U	19	2.7	3.5	17	4	11
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	0.89 U	0.89 U	4.8 J	2.1 U	1.1 J	1.6 J	0.89 U	0.89 U	0.89 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	NA	3 J	0.82 U	0.82 U	7	6.2	0.82 U	0.82 U	0.82 U	0.82 U
DISSOLVED METALS (UG/L)										
ANTIMONY	NA	0.57 U	0.57 U	0.57 U	0.57 U	1 J	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	NA	1.1 J	0.75 U	2.2 J	0.81 J	1.8 J	22	0.75 U	2.2 J	0.75 U
BARIUM	NA	27	44	22	11	120	16	4 J	23	4.8 J
BERYLLIUM	NA	0.32 J	0.31 U	0.31 U	0.57 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
CADMIUM	NA	0.21 U	0.21 U	0.21 U	0.63 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	NA	1.4 J	1 J	0.98 U	0.98 U	9.3	0.98 U	0.98 U	0.98 U	0.98 U
COBALT	NA	0.85 J	1.8	0.51 J	36	0.86 J	8.8	12	2.8	7.6
COPPER	NA	2.6	1.7 U	1.7 U	1.7 U	22	1.7 U	5.7	1.7 U	7.7
IRON	NA	2300	4600	37000	81000	130	67000	95 J	1000	47 U
LEAD	NA	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MANGANESE	NA	62	1100	1500	8900	2.1 U	1700	27	1500	18 J
MERCURY	NA	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 U
MOLYBDENUM	NA	1.1 U	5.3	2.9 J	1.1 U	13	1.1 U	1.1 U	3.4 J	1.1 U
NICKEL	NA	1.6 J	6.5	1.5 U	18	2.4	3.6	16	4.1	10
SELENIUM	NA	0.89 U	0.89 U	0.89 U	1.8 U	1.3 J	1.6 J	0.89 U	0.89 U	0.89 U
SILVER	NA	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	NA	3.6 J	0.82 U	0.82 U	0.94 J	5.8	0.82 U	0.82 U	0.82 U	0.82 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	W-11S	MSA-MW-03	MSA-MW-04	MSA-MW-05	MSA-MW-06	MSA-MW-14D	MSA-MW-14I	MSA-MW-15D	MSA-MW-15I	MSA-MW-16D
SAMPLE ID	DMW-11S-062218	MSA-MW-3-052918	MSA-MW-4-051518	MSA-MW-5-053118	MSA-MW-6-061418	MSA-MW-14D-20180622	MSA-MW-14I-062218	MSA-MW-15D-20180525	MSA-MW-15I-052518	DMW-16D-070218
SAMPLE DATE	20180622	20180529	20180515	20180531	20180614		20180622	20180525	20180525	20180702
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	4.8	NA	0.23 J	NA	0.14 J
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	0.83	0.082 U	0.6
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	9.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	49 U	49 U	2000	49 U	NA	NA	NA	NA	NA
TPH (C10-C32)	NA	200 U	850	870	1100	NA	NA	NA	NA	NA
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.33
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.506 UJ

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-16I DMW-16I-070218 20180702	MSA-MW-16S DMW-16S-070218 20180702	MSA-MW-17D DMW-17D-070218 20180702	MSA-MW-17I DMW-17I-070518 20180705	MSA-MW-17S DMW-17S-070518 20180705	MSA-MW-18I MSA-MW-18I-070918 20180709	MSA-MW-18S MSA-MW-18S- 20180710	MSA-MW-19D MSA-MW-19D- 20180530	MSA-MW-20D MSA-MW-20D- 20180516	MSA-MW-20I MSA-MW-20I-051618 20180516
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.46 U	0.46 U
1,1,1-TRICHLOROETHANE	9.6 U	0.24 U	NA	6 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	5.2 U	0.13 U	NA	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.32 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	16 U	0.41 U	NA	10 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 UJ	0.41 UJ
1,1-DICHLOROETHANE	6.8 U	0.17 U	NA	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	7.6 UJ	0.19 UJ	NA	4.8 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U
1,1-DICHLOROPROPENE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.28 U	0.28 U
1,2,3-TRICHLOROBENZENE	22 U	0.54 U	NA	14 U	0.54 U	0.54 U	0.54 U	0.54 UJ	0.35 U	0.35 U
1,2,3-TRICHLOROPROPANE	9.6 U	0.24 U	NA	6 U	0.24 U	0.24 U	0.24 U	0.24 U	0.54 U	0.54 U
1,2,3-TRIMETHYLBENZENE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.22 U	0.22 U
1,2,4-TRICHLOROBENZENE	10 U	0.38 J	NA	6.5 U	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	2.8 U	0.07 U	NA	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.24 U	0.24 U
1,2-DIBROMO-3-CHLOROPROPANE	36 U	0.91 U	NA	23 U	0.91 U	0.91 U	0.91 U	0.91 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	4.8 U	0.12 U	NA	3 U	0.12 U	0.12 U	0.12 U	0.12 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	6 U	1.5	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	8.4 U	0.33 J	NA	5.8 J	0.21 U	0.21 U	0.21 U	0.21 U	0.38 J	0.3 U
1,2-DICHLOROPROPANE	6 U	0.15 U	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	6 U	0.45 J	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.32 U	0.32 U
1,3-DICHLOROPROPANE	8.4 U	0.21 U	NA	5.3 U	0.21 U	0.21 U	0.21 U	0.21 U	0.29 U	0.29 U
1,4-DICHLOROBENZENE	6.4 U	0.39 J	NA	4 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U
2,2-DICHLOROPROPANE	12 U	0.31 U	NA	7.8 U	0.31 U	0.31 U	0.31 U	0.31 U	0.34 U	0.34 U
2-BUTANONE	46 U	1.2 U	NA	29 U	1.2 U	1.2 U	1.2 U	1.2 U	1 U	1 U
2-CHLOROETHYL VINYL ETHER	10 UR	0.26 UR	NA	6.5 UR	0.26 UR	0.26 UR	0.26 UR	0.26 UR	0.65 UR	0.65 UR
2-CHLOROTOLUENE	6 U	0.15 U	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.28 U	0.28 U
2-HEXANONE	22 U	0.54 U	NA	14 U	0.54 U	0.54 U	0.54 U	0.54 U	1.2 U	1.2 U
4-CHLOROTOLUENE	3.6 U	0.09 U	NA	2.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.23 U	0.23 U
4-ISOPROPYLTOLUENE	5.2 U	0.13 U	NA	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.29 U	0.29 U
4-METHYL-2-PENTANONE	17 U	0.42 U	NA	11 U	0.42 U	0.42 U	0.42 U	0.42 U	0.71 U	0.71 U
ACETONE	220 U	5.4 U	NA	140 U	5.4 U	5.4 U	19	5.4 U	1.8 U	2.8 U
BENZENE	5.2 U	6.6	NA	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.28 U	0.28 U
BROMOBENZENE	4.8 U	0.12 U	NA	3 U	0.12 U	0.12 U	0.12 U	0.12 U	0.31 U	0.31 U
BROMOCHLOROMETHANE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.47 U	0.47 U
BROMODICHLOROMETHANE	6.8 U	0.17 U	NA	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.3 U	0.3 U
BROMOFORM	30 U	0.76 U	NA	19 U	0.76 U	0.76 U	0.76 UJ	0.76 U	0.43 U	0.43 U
BROMOMETHANE	17 U	0.42 U	NA	11 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	11 U	0.28 U	NA	7 U	0.28 U	0.28 U	0.28 U	0.28 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	10 U	0.26 U	NA	6.5 U	0.26 U	0.26 U	0.26 U	0.59 J	0.35 U	0.35 U
CHLOROBENZENE	5.6 U	0.63 J	NA	3.5 U	0.14 U	0.24 J	0.14 U	0.14 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	16 U	0.39 U	NA	9.8 U	0.39 U	0.39 U	0.39 UJ	0.39 U	0.25 U	0.25 U
CHLORODIFLUOROMETHANE	40 UJ	1 UJ	NA	25 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	33 U	0.83 U	NA	21 U	0.83 U	0.83 U	0.83 U	0.83 U	0.41 U	0.41 U
CHLOROFORM	5.2 U	0.13 U	NA	3.3 U	0.13 U	0.13 U	0.13 U	0.32 J	0.31 U	0.31 U
CHLOROMETHANE	8 U	0.2 U	NA	5 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	250	6.2	NA	990	0.17 J	5.7	4.2	1.6	2	0.3 U
CIS-1,3-DICHLOROPROPENE	24 UJ	0.61 UJ	NA	15 UJ	0.61 UJ	0.61 U	0.61 U	0.61 U	0.26 U	0.26 U
DIBROMOMETHANE	3.6 U	0.09 U	NA	2.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.46 U	0.46 U
DICHLORODIFLUOROMETHANE	14 UJ	0.35 UJ	NA	8.8 U	0.35 U	0.35 U	0.35 U	0.35 U	0.5 UJ	0.5 UJ
DIISOPROPYL ETHER	6.8 U	3 J	NA	4.3 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.44 U

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Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-16I DMW-16I-070218 20180702	MSA-MW-16S DMW-16S-070218 20180702	MSA-MW-17D DMW-17D-070218 20180702	MSA-MW-17I DMW-17I-070518 20180705	MSA-MW-17S DMW-17S-070518 20180705	MSA-MW-18I MSA-MW-18I-070918 20180709	MSA-MW-18S MSA-MW-18S- 20180710	MSA-MW-19D MSA-MW-19D- 20180530	MSA-MW-20D MSA-MW-20D- 20180516	MSA-MW-20I MSA-MW-20I-051618 20180516
ETHYL TERT-BUTYL ETHER	6 U	0.18 J	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.35 U	0.35 U
ETHYLBENZENE	4.4 U	0.11 U	NA	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.26 U	0.26 U
HEXACHLOROBUTADIENE	33 UJ	0.83 UJ	NA	21 UJ	0.83 UJ	0.83 U	0.83 UJ	0.83 UJ	0.36 U	0.36 U
ISOPROPYLBENZENE	3.6 U	0.09 U	NA	2.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.21 U	0.21 U
M+P-XYLENES	3.2 U	0.08 U	NA	2 U	0.08 U	0.08 U	0.08 U	0.08 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	2.8 U	0.07 U	NA	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.27 U	0.27 U
METHYLENE CHLORIDE	100 U	2.6 U	NA	66 U	2.6 U	2.6 U	2.6 U	2.6 U	0.53 U	0.53 U
NAPHTHALENE	13 U	0.32 U	NA	8 U	0.32 U	0.32 U	0.32 U	0.32 U	0.25 U	0.25 U
N-BUTYLBENZENE	5.6 UJ	0.14 UJ	NA	3.5 UJ	0.14 UJ	0.14 U	0.14 UJ	0.14 U	0.21 U	0.21 U
N-PROPYLBENZENE	6 U	0.15 U	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.45 U	0.45 U
O-XYLENE	3.6 U	0.09 U	NA	2.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.28 U	0.28 U
SEC-BUTYLBENZENE	5.2 U	0.13 U	NA	3.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.27 U	0.27 U
STYRENE	4 U	0.1 U	NA	2.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.23 U	0.23 U
TERT-AMYL METHYL ETHER	4.4 U	0.11 U	NA	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.29 U	0.29 U
TERT-BUTYLBENZENE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	68 U	9.6 U	NA	42 U	1.7 U	1.7 U	1.7 U	1.7 U	4.6 UJ	4.6 UJ
TETRACHLOROETHENE	6 U	0.15 U	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.3 U	0.3 U
TOLUENE	5.6 U	0.14 U	NA	3.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.23 U	0.23 U
TOTAL XYLENES	6 U	0.15 U	NA	3.8 U	0.15 U	0.15 U	0.15 U	0.15 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	7.6 U	0.19 U	NA	4.8 U	0.19 U	0.19 U	0.19 U	0.19 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	27 U	0.67 U	NA	17 U	0.67 U	0.67 U	0.67 U	0.67 U	0.31 U	0.31 U
TRICHLOROETHENE	1200	0.1 U	NA	510	0.23 J	7.4	0.63 U	16	17	0.33 U
TRICHLOROFLUOROMETHANE	18 U	0.45 U	NA	11 U	0.45 U	0.45 U	0.45 U	0.45 U	0.5 U	0.5 U
VINYL ACETATE	7.6 UJ	0.19 UJ	NA	4.8 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.28 UJ	0.28 UJ
VINYL CHLORIDE	18 J	61	NA	32	0.2 U	2.1	0.44 J	0.3 J	0.45 U	0.45 U
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	2.9 NJ	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	0.11 U	0.11 U	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	370	170	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SEMIVOLATILES (UG/L)										
1,4-DIOXANE	0.36 U	230	NA	0.36 U	0.36 U	3	3.2	0.37 U	1.5	0.36 U
TOTAL METALS (UG/L)										
ANTIMONY	0.57 U	0.57 UJ	NA	51 J-	0.59 J	0.57 U	0.86 J	0.57 U	0.57 U	0.79 J
ARSENIC	14	1.7 J	NA	52	6.5 J	1.7 J	2.5 J	2.1 J	0.75 U	0.75 U
BARIUM	6.7	44 J	NA	50	68	100	180	51	110	46
BERYLLIUM	0.73 J	0.31 U	NA	51	0.67 J	0.34 J	0.36 J	2.4	1.4	0.31 U
CADMIUM	0.32 J	0.21 UJ	NA	49	0.3 U	1.5	0.42 J	2	3.7	0.21 U
CALCIUM	NA	NA	NA	NA	NA	230000	170000	NA	NA	NA
CHROMIUM	0.98 U	2.9	NA	51	1.9 J	2.5	6.6	4.1	0.98 U	0.98 U
COBALT	43	18	NA	53	7.6 J	1.9	2.8	220	120	0.36 J
COPPER	3	1.7 U	NA	2.5	3.3	1.9 J	5.5	23	23	6.5
IRON	3400	24000	NA	13000 J-	16000 J	300000	110000	530	47 J	310
LEAD	0.57 U	0.45 UJ	NA	49	1.4	0.45 U	5	0.57 J	0.45 U	0.47 J
MAGNESIUM	NA	NA	NA	NA	NA	210000	130000	NA	NA	NA
MANGANESE	59	3100	NA	250	1400 J	3900	1900	2500	1500	110
MERCURY	0.13 U	0.13 U	NA	0.13 U	0.13 U	0.13 UJ	0.13 U	0.13 U	1.1	0.13 U
MOLYBDENUM	1.1 U	1.1 UJ	NA	49 J-	1.2 J	1.8 J	1.7 J	1.1 U	1.1 U	2 J
NICKEL	56	20	NA	53	62 J	3.2	8	110	48	1.5 J
POTASSIUM	NA	NA	NA	NA	NA	42000	36000	NA	NA	NA
SELENIUM	0.89 U	0.89 UJ	NA	50	0.89 UJ	1.4 J	1.5 J	3.3 U	0.89 U	0.89 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	29000	31000	NA	NA	NA
SILVER	0.053 U	0.053 UJ	NA	49 J-	0.053 UJ	0.053 U	0.066 J	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	450000	380000	NA	NA	NA
THALLIUM	0.2 U	0.2 UJ	NA	49	0.2 U	0.2 U	0.2 U	0.34 J	0.2 U	0.2 U
VANADIUM	0.82 U	2 J	NA	50	4 J	2.7 J	8.7	1.3 J	0.82 U	2.2 J
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 UJ	NA	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.7 J
ARSENIC	13	1.7 J	NA	19 J	6.1 J	1.3 J	1.5 J	1.8 J	0.75 U	0.75 U
BARIUM	4.5 J	44 J	NA	15	64	110	160	57	110	45
BERYLLIUM	0.64 J	0.31 U	NA	0.73 U	0.43 J	0.31 U	0.48 J	2.5	1.1	0.31 U
CADMIUM	0.31 J	0.21 UJ	NA	0.21 U	0.21 U	1.3	0.51 J	2.1	3.4	0.21 U
CHROMIUM	0.98 U	2.9	NA	0.98 UJ	1.1 J	2	1.6 J	3.5	0.98 U	0.98 U
COBALT	41	17	NA	28 J	6.3 J	2.9	2.3	240	120	0.29 J
COPPER	2.4	3.9	NA	1.7 U	1.7 U	1.7 U	1.7 U	21	24	5.2
IRON	2800	25000	NA	6200 J	15000 J	290000	99000	540	47 U	47 U
LEAD	0.45 U	0.45 UJ	NA	0.52 U	0.5 U	0.45 U	0.56 J	0.45 U	0.45 U	0.45 U
MANGANESE	54 J	3000 J	NA	58 J	1200 J	3600	1800	2800 J	1400	100
MERCURY	0.13 U	0.13 U	NA	0.13 U	0.13 U	0.13 UJ	0.13 U	0.13 U	0.37	0.13 U
MOLYBDENUM	1.1 U	1.1 UJ	NA	1.1 U	1.1 J	1.6 J	1.4 J	1.1 U	1.1 U	1.9 J
NICKEL	52	19	NA	35 J	55 J	3.5	6.1	120	47	1.5 U
SELENIUM	0.89 U	0.89 UJ	NA	0.89 UJ	0.89 UJ	1.1 J	1.3 J	3.9 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 UJ	NA	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 UJ	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.37 J	0.2 U	0.2 U
VANADIUM	0.82 U	1.7 J	NA	0.93 J	3 J	1.8 J	2.2 J	1.2 J	0.82 U	1.9 J

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MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	NA	0.11 J	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	0.11 J	NA	0.082 U	NA	NA	0.082 U	0.1 J
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	200	180	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	13	11	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	440	480	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	27	40	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	0.028 U	0.014 U	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	0.028 U	0.014 U	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	0.44	0.68	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	1900	1100	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	3700	2500	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	85 J	NA	NA	49 U	NA	49 U	NA	NA	NA
TPH (C10-C32)	NA	1300	NA	NA	200 J	NA	690	NA	NA	NA
RADIONUCLIDES (PCI/L)										
RADIUM-228	0.103 U	0.617	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	0.322 UJ	1.08 J	NA	NA	NA	NA	NA	NA	NA	NA

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VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	0.46 U	0.14 U	1.8 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.46 U	0.46 U
1,1,1-TRICHLOROETHANE	0.23 U	0.24 U	3 U	0.24 U	0.24 U	0.24 U	2 U	0.24 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.13 U	1.6 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.32 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 UJ	0.41 UJ	5.1 UJ	0.41 UJ	0.41 UJ	0.41 UJ	3.4 UJ	0.41 UJ	0.41 UJ	0.41 UJ
1,1-DICHLOROETHANE	0.25 U	0.17 U	2.1 U	0.17 U	0.17 U	0.17 U	1.4 U	0.17 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.19 U	3.4 J	0.19 U	0.19 U	0.19 U	1.6 U	0.19 U	0.27 U	0.33 J
1,1-DICHLOROPROPENE	0.28 U	0.14 U	1.8 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.28 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.35 U	0.54 U	6.8 U	0.54 U	0.54 U	0.54 U	4.5 U	0.54 U	0.35 U	0.35 U
1,2,3-TRICHLOROPROPANE	0.54 U	0.24 U	3 U	0.24 U	0.24 U	0.24 U	2 U	0.24 U	0.54 U	0.54 U
1,2,3-TRIMETHYLBENZENE	0.22 U	0.14 U	1.8 U	0.14 UJ	0.14 UJ	0.14 UJ	1.2 U	0.14 U	0.22 U	0.22 U
1,2,4-TRICHLOROBENZENE	0.27 U	0.26 U	3.3 U	0.26 U	0.26 U	0.26 U	2.2 U	0.26 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	0.24 U	0.07 U	0.88 U	0.07 U	0.07 U	0.07 U	0.58 U	0.07 U	0.24 U	0.24 U
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.91 U	11 U	0.91 U	0.91 U	0.91 U	7.6 U	0.91 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.12 U	1.5 U	0.12 U	0.12 U	0.12 U	1 U	0.12 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 J	1.2 U	0.15 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.21 U	2.6 U	0.21 U	0.21 U	0.35 J	1.7 U	0.21 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	0.32 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.32 U	0.32 U
1,3-DICHLOROPROPANE	0.29 U	0.21 U	2.6 U	0.21 U	0.21 U	0.21 U	1.7 U	0.21 U	0.29 U	0.29 U
1,4-DICHLOROBENZENE	0.23 U	0.16 U	2 U	0.16 U	0.16 U	0.16 U	1.3 U	0.16 U	0.23 U	0.23 U
2,2-DICHLOROPROPANE	0.34 U	0.31 U	3.9 U	0.31 U	0.31 U	0.31 U	2.6 U	0.31 U	0.34 U	0.34 U
2-BUTANONE	1 U	1.2 U	15 U	1.2 U	1.2 U	1.2 U	9.7 U	1.2 U	1 U	1 U
2-CHLOROETHYL VINYL ETHER	0.65 UR	0.26 UR	3.3 UR	0.26 UR	0.26 UR	0.26 UR	2.2 UR	0.26 UR	0.65 UR	0.65 UR
2-CHLOROTOLUENE	0.28 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.28 U	0.28 U
2-HEXANONE	1.2 U	0.54 U	6.8 U	0.54 U	0.54 U	0.54 U	4.5 U	0.54 U	1.2 U	1.2 U
4-CHLOROTOLUENE	0.23 U	0.09 U	1.1 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.23 U	0.23 U
4-ISOPROPYLTOLUENE	0.29 U	0.13 U	1.6 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.29 U	0.29 U
4-METHYL-2-PENTANONE	0.71 U	0.42 U	5.3 U	0.42 U	0.42 U	0.42 U	3.5 U	0.42 U	0.71 U	0.71 U
ACETONE	3 U	5.4 U	68 U	5.4 U	5.4 U	5.4 U	45 U	5.4 U	1.8 U	1.8 U
BENZENE	0.28 U	0.13 U	1.6 U	0.13 U	0.13 U	2.5	1.1 U	0.19 J	0.28 U	0.28 U
BROMOBENZENE	0.31 U	0.12 U	1.5 U	0.12 U	0.12 U	0.12 U	1 U	0.12 U	0.31 U	0.31 U
BROMOCHLOROMETHANE	0.47 U	0.14 U	1.8 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.47 U	0.47 U
BROMODICHLOROMETHANE	0.3 U	0.17 U	2.1 U	0.17 U	0.17 U	0.17 U	1.4 U	0.17 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.76 U	9.5 U	0.76 U	0.76 U	0.76 U	6.3 U	0.76 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	5.3 U	0.42 U	0.42 U	0.42 U	3.5 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.28 U	3.5 U	0.28 U	0.28 U	0.28 U	2.3 U	0.28 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.26 U	3.3 U	0.26 U	3.3	0.26 U	88	0.26 U	0.35 U	0.35 U
CHLOROBENZENE	0.62 J	0.14 U	1.8 U	0.14 U	0.14 U	0.42 J	1.2 U	0.14 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.39 U	4.9 U	0.39 U	0.39 U	0.39 U	3.2 U	0.39 U	0.25 U	0.25 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	13 UJ	1 UJ	1 UJ	1 UJ	8.3 UJ	1 UJ	1 UJ	1 UJ
CHLOROETHANE	0.41 U	0.83 U	10 U	0.83 U	0.83 U	0.83 U	6.9 U	0.83 U	0.41 U	0.41 U
CHLOROFORM	0.31 U	0.13 U	1.6 U	0.13 U	1.6	0.13 U	3.4 J	0.13 U	0.31 U	0.31 U
CHLOROMETHANE	0.43 U	0.2 U	2.5 U	0.2 U	0.2 U	0.2 U	1.7 U	0.2 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	5.8	0.27 J	370	0.16 U	0.16 U	1.7	1.9 J	0.16 U	0.34 J	58
CIS-1,3-DICHLOROPROPENE	0.26 U	0.61 U	7.6 U	0.61 U	0.61 U	0.61 U	5.1 U	0.61 U	0.26 U	0.26 U
DIBROMOMETHANE	0.46 U	0.09 U	1.1 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.46 U	0.46 U
DICHLORODIFLUOROMETHANE	0.5 UJ	0.35 UJ	4.4 UJ	0.35 UJ	0.35 UJ	0.35 UJ	2.9 UJ	0.35 UJ	0.5 UJ	0.5 UJ
DIISOPROPYL ETHER	0.44 U	0.17 U	2.1 U	0.17 UJ	0.17 UJ	0.31 J	1.4 U	0.17 U	0.44 U	0.44 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-20S** **MSA-MW-20S-20180516**	**MSA-MW-21D** **MSA-MW-21D-20180524**	**MSA-MW-21I** **MSA-MW-21I-052418 20180524**	**MSA-MW-22D** **MSA-MW-22D-20180521**	**MSA-MW-23D** **MSA-MW-23D-20180522**	**MSA-MW-23S** **MSA-MW-23S-20180522**	**MSA-MW-24I** **MSA-MW-24I-052318 20180524**	**MSA-MW-24S** **MSA-MW-24S-20180524**	**MSA-MW-25I** **MSA-MW-25I-051518 20180515**	**MSA-MW-25S** **MSA-MW-25S-20180515**
ETHYL TERT-BUTYL ETHER	0.35 U	0.15 U	1.9 U	0.15 UJ	0.15 UJ	0.15 UJ	1.2 U	0.15 U	0.35 U	0.35 U
ETHYLBENZENE	0.26 U	0.11 U	1.4 U	0.11 U	0.11 U	0.11 U	0.92 U	0.11 U	0.26 U	0.26 U
HEXACHLOROBUTADIENE	0.36 U	0.83 U	10 U	0.83 U	0.83 U	0.83 U	6.9 U	0.83 U	0.36 U	0.36 U
ISOPROPYLBENZENE	0.21 U	0.09 U	1.1 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.21 U	0.21 U
M+P-XYLENES	0.24 U	0.08 U	1 U	0.08 U	0.08 U	0.08 U	0.67 U	0.12 J	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.27 U	0.07 U	0.88 U	0.07 U	0.07 U	0.07 U	0.58 U	0.07 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	2.6 U	33 U	2.6 U	2.6 U	2.6 U	22 U	2.6 U	0.53 U	0.53 U
NAPHTHALENE	0.25 U	0.32 U	4 U	0.32 U	0.32 U	0.32 U	2.7 U	0.32 U	0.25 U	0.25 U
N-BUTYLBENZENE	0.21 U	0.14 U	1.8 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.45 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.45 U	0.45 U
O-XYLENE	0.28 U	0.09 U	1.1 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.28 U	0.28 U
SEC-BUTYLBENZENE	0.27 U	0.13 U	1.6 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.27 U	0.27 U
STYRENE	0.23 U	0.1 U	1.3 U	0.1 U	0.1 U	0.1 U	0.83 U	0.1 U	0.23 U	0.23 U
TERT-AMYL METHYL ETHER	0.29 U	0.11 U	1.4 U	0.11 UJ	0.11 UJ	0.11 UJ	0.92 U	0.11 U	0.29 U	0.29 U
TERT-BUTYLBENZENE	0.26 U	0.14 U	1.8 U	0.14 U	0.14 U	0.29 J	1.2 U	0.14 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	4.6 UJ	1.7 U	21 U	1.7 U	1.7 U	1.7 U	14 U	1.7 U	4.6 U	4.6 U
TETRACHLOROETHENE	0.3 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.14 U	1.8 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.15 U	1.9 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.19 U	2.9 J	0.19 U	0.19 U	0.19 J	1.6 U	0.19 U	0.29 U	2
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.67 U	8.4 U	0.67 U	0.67 U	0.67 U	5.6 U	0.67 U	0.31 U	0.31 U
TRICHLOROETHENE	0.88 J	0.51 J	110	0.1 U	1.3	0.1 U	290	0.1 U	0.33 U	0.39 J
TRICHLOROFLUOROMETHANE	0.5 U	0.45 UJ	5.6 UJ	0.45 UJ	0.45 UJ	0.45 UJ	3.7 UJ	0.45 UJ	0.5 U	0.5 U
VINYL ACETATE	0.28 UJ	0.19 U	2.4 U	0.19 UJ	0.19 UJ	0.19 UJ	1.6 U	0.19 U	0.28 UJ	0.28 UJ
VINYL CHLORIDE	2.7	0.2 UJ	100	0.2 U	0.2 U	5.4	1.7 UJ	0.2 UJ	0.45 U	17
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-20S** **MSA-MW-20S-20180516**	**MSA-MW-21D** **MSA-MW-21D-20180524**	**MSA-MW-21I** **MSA-MW-21I-052418 20180524**	**MSA-MW-22D** **MSA-MW-22D-20180521**	**MSA-MW-23D** **MSA-MW-23D-20180522**	**MSA-MW-23S** **MSA-MW-23S-20180522**	**MSA-MW-24I** **MSA-MW-24I-052318 20180524**	**MSA-MW-24S** **MSA-MW-24S-20180524**	**MSA-MW-25I** **MSA-MW-25I-051518 20180515**	**MSA-MW-25S** **MSA-MW-25S-20180515**
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	0.37 U	0.37 U	2.2	0.36 U	0.37 U	4	0.36 U	1.4	0.37 U	0.36 U
TOTAL METALS (UG/L)										
ANTIMONY	0.85 J	0.57 U	0.57 U	1.3 J	0.57 U	0.57 U	0.57 U	0.59 J	0.69 J	1.3 J
ARSENIC	0.75 U	3 J	13	9.5	0.75 U	2.1 J	0.75 U	0.75 U	12	2.4 J
BARIUM	46	49	29	67	88	29	6.3	27	71	68
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U	0.66 J	0.31 U	0.51 J	8.9	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.32 J	42	0.65 J	0.21 U	3.9	0.21 U	0.35 J
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.98 U	5.7 J-	0.98 UJ	3.5	0.98 U	5.9	1.1 J	18 J-	6	1.8 J
COBALT	0.45 J	2.4 J	5.1 J	6.5	100	2.8	4.2 J	480 J	1.5	3.7
COPPER	8.9	7.3 J	1.9 J	9.3	9.6	12	7.5 J	240 J	7.1	7.6
IRON	950	690	18000	840	47 U	5600	720	320000	2400	730
LEAD	0.45 U	1.4 J-	1.9 J-	4.2	0.45 U	4.4	0.45 U	0.68 J	0.88 J	0.45 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	130	19 J	400 J	53	820	82	58 J	7600 J	47	170
MERCURY	0.13 U	0.32	0.13 U	0.13 U	0.28	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	2.2 J	1.2 J	1.5 J	2.3 J	1.1 U	1.1 U	1.1 U	1.1 U	2 J	1.1 J
NICKEL	1.7 J	5.2 J	2.6 J	6.8	110	5.9	2.6 J	740 J	14	13
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.89 U	0.89 U	0.98 J	0.89 U	2.5 J	0.89 U	1.3 J	68	0.89 U	0.89 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.062 J	0.053 U	0.11 J	0.053 U	0.24 J	0.053 U	0.06 J	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U
VANADIUM	2 J	5.4	0.91 J	10	0.82 U	2.6 J	0.82 U	180	6.8	1 J
DISSOLVED METALS (UG/L)										
ANTIMONY	0.99 J	0.57 U	0.57 U	1.3 J	0.57 U	0.57 U	0.57 U	0.57 U	0.67 J	0.69 J
ARSENIC	0.75 U	2.5 J	13	10	0.75 U	1.5 J	0.75 U	0.75 U	13	4.4 J
BARIUM	48	40	27	60	88	20	6.5	25	68	68
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.39 J	0.7 J	0.31 U	0.49 J	8.9	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 J	47	0.21 U	0.21 U	3.7	0.21 U	0.31 J
CHROMIUM	0.98 U	2 J-	0.98 UJ	2.9	0.98 U	1.7 J	0.98 UJ	18 J-	4.5	1.5 J
COBALT	0.38 J	1.6 J	4.7 J	7.7	110	2.5	4.1 J	460 J	1.4	5.3
COPPER	3.9	4.7 J	1.7 UJ	6.1	17	1.7 U	7.8 J	230 J	3.4	5
IRON	620	300	18000	590	47 U	4700	47 U	330000	2000	1200
LEAD	0.45 U	0.45 UJ	0.57 J	1.6	0.45 U	0.45 U	0.45 UJ	0.54 J	0.45 U	0.45 U
MANGANESE	120	16 J	410 J	58	930	80	57 J	7300 J	40	240
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	2.2 J	1.1 U	1.5 J	2.2 J	1.1 U	1.1 U	1.1 U	1.1 U	2.1 J	1.1 U
NICKEL	1.7 J	3.3 J	2.4 J	6.4	120	4.2	2.6 J	700 J	14	13
SELENIUM	0.89 U	0.89 U	1.2 J	0.89 U	2.8 J	0.89 U	1.1 J	66	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U
VANADIUM	1.2 J	3.1 J	0.82 U	10	0.82 U	0.82 U	0.82 U	170	6.3	1.1 J

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MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	0.082 U	NA	NA	NA	0.082 U	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	49 U	NA	NA	NA	NA	49 U	NA	49 U	NA	55 J
TPH (C10-C32)	800	NA	NA	NA	NA	820	NA	380 J	NA	220 U
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-26S MSA-MW-26S- 20180521	MSA-MW-27D MSA-MW-27D- 20180619	MSA-MW-29D MSA-MW-29D- 20180709	MSA-MW-30D MSA-MW-30D- 20180620	MSA-MW-30I MSA-MW-30I-052318 20180524	MSA-MW-31D MSA-MW-31D- 20180622	MSA-MW-32I MSA-MW-32I-060818 20180608	MSA-MW-32S MSA-MW-32S- 20180608	MSA-MW-33I MSA-MW-33I-052518 20180525	MSA-MW-33S MSA-MW-33S- 20180525
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
1,1,1-TRICHLOROETHANE	0.24 U	0.24 U	0.24 U	0.24 U	2 U	0.24 U	1.2 U	1.2 U	0.24 U	3 U
1,1,2,2-TETRACHLOROETHANE	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.65 U	0.65 U	0.13 U	1.6 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 UJ	0.41 U	0.41 U	0.41 U	3.4 UJ	0.41 U	2.1 U	2.1 U	0.41 U	5.1 U
1,1-DICHLOROETHANE	0.17 U	0.17 U	0.17 U	0.17 U	1.4 U	0.17 U	0.85 U	0.85 U	0.17 U	2.1 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	1.6 U	0.19 U	0.95 U	0.95 U	0.19 U	4.2 J
1,1-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
1,2,3-TRICHLOROBENZENE	0.54 U	0.54 U	0.54 U	0.54 U	4.5 U	0.54 U	2.7 UJ	2.7 UJ	0.54 U	6.8 UJ
1,2,3-TRICHLOROPROPANE	0.24 U	0.24 U	0.24 U	0.24 U	2 U	0.24 U	1.2 U	1.2 U	0.24 U	3 U
1,2,3-TRIMETHYLBENZENE	0.14 UJ	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 UJ	0.7 UJ	0.14 U	1.8 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U	2.2 U	0.26 U	1.3 U	1.3 U	0.26 U	3.3 U
1,2,4-TRIMETHYLBENZENE	0.07 U	0.07 U	0.07 U	0.07 U	0.58 U	0.07 U	0.35 U	0.35 U	0.07 U	0.88 U
1,2-DIBROMO-3-CHLOROPROPANE	0.91 U	0.91 U	0.91 U	0.91 U	7.6 U	0.91 U	4.6 U	4.6 U	0.91 U	11 U
1,2-DIBROMOETHANE	0.12 U	0.12 U	0.12 U	0.12 U	1 U	0.12 U	0.6 U	0.6 U	0.12 U	1.5 U
1,2-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
1,2-DICHLOROETHANE	0.21 U	0.21 U	0.21 U	0.21 U	1.7 U	0.21 U	1.1 U	1.1 U	0.21 U	2.6 U
1,2-DICHLOROPROPANE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
1,3-DICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
1,3-DICHLOROPROPANE	0.21 U	0.21 U	0.21 U	0.21 U	1.7 U	0.21 U	1.1 U	1.1 U	0.21 U	2.6 U
1,4-DICHLOROBENZENE	0.16 U	0.16 U	0.16 U	0.16 U	1.3 U	0.16 U	0.8 U	0.8 U	0.16 U	2 U
2,2-DICHLOROPROPANE	0.31 U	0.31 U	0.31 U	0.31 U	2.6 U	0.31 U	1.6 U	1.6 U	0.31 U	3.9 U
2-BUTANONE	1.2 U	1.2 U	1.2 U	1.2 U	9.7 U	1.2 U	5.8 J	5.8 U	1.2 U	15 U
2-CHLOROETHYL VINYL ETHER	0.26 UR	0.26 UR	0.26 UR	0.26 UR	2.2 UR	0.26 UR	1.3 UR	1.3 UR	0.26 UR	3.3 UR
2-CHLOROTOLUENE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
2-HEXANONE	0.54 U	0.54 U	0.54 U	0.54 U	4.5 U	0.54 U	2.7 U	2.7 U	0.54 U	6.8 U
4-CHLOROTOLUENE	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.45 U	0.45 U	0.09 U	1.1 U
4-ISOPROPYLTOLUENE	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.65 U	0.65 U	0.13 U	1.6 U
4-METHYL-2-PENTANONE	0.42 U	0.42 U	0.42 U	0.42 U	3.5 U	0.42 U	2.1 U	2.1 U	0.42 U	5.3 U
ACETONE	5.4 U	5.4 U	5.4 U	5.4 U	45 U	5.4 U	27 U	27 U	5.4 U	68 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.65 U	0.65 U	0.13 U	7.2 J
BROMOBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	1 U	0.12 U	0.6 U	0.6 U	0.12 U	1.5 U
BROMOCHLOROMETHANE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
BROMODICHLOROMETHANE	0.17 U	0.17 U	0.17 U	0.17 U	1.4 U	0.17 U	0.85 U	0.85 U	0.17 U	2.1 U
BROMOFORM	0.76 U	0.76 U	0.76 U	0.76 U	6.3 U	0.76 U	3.8 UJ	3.8 UJ	0.76 U	9.5 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U	3.5 U	0.42 U	2.1 U	2.1 U	0.42 U	5.3 U
CARBON DISULFIDE	0.28 U	0.28 U	0.28 U	0.28 U	2.3 U	0.28 U	1.4 U	1.4 U	0.28 U	3.5 U
CARBON TETRACHLORIDE	0.26 U	0.26 U	0.26 U	0.26 U	9.5	0.26 U	1.3 U	1.3 U	0.26 U	3.3 U
CHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
CHLORODIBROMOMETHANE	0.39 U	0.39 U	0.39 U	0.39 U	3.2 U	0.39 U	2 U	2 U	0.39 U	4.9 U
CHLORODIFLUOROMETHANE	1 UJ	1 UJ	1 UJ	1 UJ	8.3 UJ	1 UJ	5 UJ	5 UJ	1 UJ	13 UJ
CHLOROETHANE	0.83 U	0.83 U	0.83 U	0.83 U	6.9 U	0.83 U	4.2 U	4.2 U	0.83 U	10 U
CHLOROFORM	0.13 U	0.13 U	0.13 U	0.13 U	2.8 J	0.13 U	0.65 U	0.65 U	0.13 U	1.6 U
CHLOROMETHANE	0.2 U	0.2 U	0.2 U	0.2 U	1.7 U	0.2 U	1 U	1 U	0.2 U	2.5 U
CIS-1,2-DICHLOROETHENE	0.51 J	0.16 U	0.16 U	0.16 U	1.7 J	0.16 U	1 U	0.8 U	0.16 U	360
CIS-1,3-DICHLOROPROPENE	0.61 U	0.61 U	0.61 U	0.61 U	5.1 U	0.61 UJ	3.1 U	3.1 U	0.61 U	7.6 U
DIBROMOMETHANE	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.45 UJ	0.45 UJ	0.09 U	1.1 U
DICHLORODIFLUOROMETHANE	0.35 UJ	0.35 UJ	0.35 U	0.35 UJ	2.9 UJ	0.35 UJ	1.8 U	1.8 U	0.35 U	4.4 U
DIISOPROPYL ETHER	0.17 UJ	0.17 U	0.17 U	0.17 U	1.4 U	0.17 U	0.85 U	0.85 U	0.17 U	2.1 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-26S** **MSA-MW-26S-20180521**	**MSA-MW-27D** **MSA-MW-27D-20180619**	**MSA-MW-29D** **MSA-MW-29D-20180709**	**MSA-MW-30D** **MSA-MW-30D-20180620**	**MSA-MW-30I** **MSA-MW-30I-052318 20180524**	**MSA-MW-31D** **MSA-MW-31D-20180622**	**MSA-MW-32I** **MSA-MW-32I-060818 20180608**	**MSA-MW-32S** **MSA-MW-32S-20180608**	**MSA-MW-33I** **MSA-MW-33I-052518 20180525**	**MSA-MW-33S** **MSA-MW-33S-20180525**
ETHYL TERT-BUTYL ETHER	0.15 UJ	0.15 U	0.15 U	0.15 U	1.2 U	0.15 UJ	0.75 U	0.75 U	0.15 U	1.9 U
ETHYLBENZENE	0.11 U	0.11 U	0.11 U	0.11 U	0.92 U	0.11 U	0.55 U	0.55 U	0.11 U	1.4 U
HEXACHLOROBUTADIENE	0.83 U	0.83 U	0.83 U	0.83 U	6.9 U	0.83 U	4.2 U	4.2 U	0.83 U	10 UJ
ISOPROPYLBENZENE	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.45 U	0.45 U	0.09 U	1.1 U
M+P-XYLENES	0.08 U	0.08 U	0.08 U	0.08 U	0.67 U	0.08 U	0.4 U	0.4 U	0.08 U	1 U
METHYL TERT-BUTYL ETHER	0.07 U	0.07 U	0.07 U	0.07 U	0.58 U	0.07 U	0.35 U	0.35 U	0.07 U	0.88 U
METHYLENE CHLORIDE	2.6 U	2.6 U	2.6 U	2.6 U	22 U	2.6 U	13 U	13 U	2.6 U	33 U
NAPHTHALENE	0.32 U	0.32 U	0.32 U	0.32 U	2.7 U	0.32 U	1.6 U	1.6 U	0.32 U	4 U
N-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 UJ	0.7 UJ	0.14 U	1.8 U
N-PROPYLBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
O-XYLENE	0.09 U	0.09 U	0.09 U	0.09 U	0.75 U	0.09 U	0.45 U	0.45 U	0.09 U	1.1 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	1.1 U	0.13 U	0.65 U	0.65 U	0.13 U	1.6 U
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.83 U	0.1 U	0.5 U	0.5 U	0.1 U	1.3 U
TERT-AMYL METHYL ETHER	0.11 UJ	0.11 U	0.11 U	0.11 U	0.92 U	0.11 UJ	0.55 U	0.55 U	0.11 U	1.4 U
TERT-BUTYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
TERTIARY-BUTYL ALCOHOL	1.7 U	1.7 U	1.7 U	1.7 U	14 U	1.7 U	8.5 U	8.5 U	1.7 U	21 U
TETRACHLOROETHENE	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
TOLUENE	0.14 U	0.14 U	0.14 U	0.14 U	1.2 U	0.14 U	0.7 U	0.7 U	0.14 U	1.8 U
TOTAL XYLENES	0.15 U	0.15 U	0.15 U	0.15 U	1.2 U	0.15 U	0.75 U	0.75 U	0.15 U	1.9 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	1.6 U	0.19 U	0.95 U	0.95 U	0.19 U	3.7 J
TRANS-1,3-DICHLOROPROPENE	0.67 U	0.67 U	0.67 U	0.67 U	5.6 U	0.67 U	3.4 U	3.4 U	0.67 U	8.4 U
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	230	0.1 U	1.2 U	1.3 U	0.19 J	380
TRICHLOROFLUOROMETHANE	0.45 UJ	0.45 U	0.45 U	0.45 U	3.7 UJ	0.45 U	2.3 U	2.3 U	0.45 U	5.6 U
VINYL ACETATE	0.19 UJ	0.19 U	0.19 UJ	0.19 U	1.6 U	0.19 U	0.95 UJ	0.95 UJ	0.19 U	2.4 U
VINYL CHLORIDE	0.32 J	0.2 U	0.2 U	0.2 U	1.7 UJ	0.2 U	1 U	1 U	0.2 U	64
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	2.4 R	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-26S MSA-MW-26S- 20180521	MSA-MW-27D MSA-MW-27D- 20180619	MSA-MW-29D MSA-MW-29D- 20180709	MSA-MW-30D MSA-MW-30D- 20180620	MSA-MW-30I MSA-MW-30I-052318 20180524	MSA-MW-31D MSA-MW-31D- 20180622	MSA-MW-32I MSA-MW-32I-060818 20180608	MSA-MW-32S MSA-MW-32S- 20180608	MSA-MW-33I MSA-MW-33I-052518 20180525	MSA-MW-33S MSA-MW-33S- 20180525
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	0.34 U	0.34 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.36 U	0.36 U	0.36 U
TOTAL METALS (UG/L)										
ANTIMONY	0.77 J	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.85 J	1.4 J	0.57 U	0.57 U
ARSENIC	12	0.75 U	0.75 U	0.75 U	0.96 J	0.75 U	4.9 J	12	2.6 J	16
BARIUM	120	10	4.3 J	6	27	30	40	83	42	27
BERYLLIUM	0.31 J	0.36 U	0.31 U	0.31 U	0.31 U	0.31 U	0.39 U	0.32 J	0.31 U	0.51 J
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U	0.23 J	0.21 U	0.24 J	0.36 J	0.21 U	0.21 U
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	7.1	0.98 U	0.98 U	0.98 U	1.5 J	2.7	3.6	7.2	1 J	2.6
COBALT	0.71 J	4.3	1.3	3.5	12 J	0.69 J	15	7.2	3.4	31
COPPER	8.2	4.2	1.7 U	1.7 U	8.5 J	1.7 U	7.7	7.8	9.7	1.9 J
IRON	30000	47 U	47 U	78 J	1000	3300	13000	46000	820	11000
LEAD	2.2	0.45 U	0.45 U	0.45 U	0.74 J	0.47 J	3.6	4.9	0.52 J	0.45 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	570	66	4.1 J	7.7 J	81 J	340 J	1300	4200	53	55
MERCURY	0.13 U	0.13 U	0.13 UJ	0.13 U	0.13 U	0.13 U	0.15 J	0.13 U	0.13 UJ	0.13 UJ
MOLYBDENUM	1.1 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 J	1.1 U	1.1 U	1.1 U
NICKEL	1.5 U	6.2	1.5 U	4.1	12 J	1.5 U	7.6	4.4	6.1	25
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	1.6 J	0.89 U	0.89 U	0.89 U	1 J	1 J	0.89 U	2.2 U	0.89 U	0.89 U
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.054 J	0.053 U	0.053 U	0.053 U	0.071 J	0.053 U	0.14 J	0.13 J	0.14 J	0.094 J
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	7.1	0.82 U	0.82 U	0.82 U	3.3 J	1.5 J	5.1	10	0.99 J	2.2 J
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.8 J	1.4 J	0.57 U	0.57 U
ARSENIC	11	0.75 U	0.75 U	0.75 U	1.1 J	0.75 U	4.9 J	11	1.8 J	15
BARIUM	120	9.9	4.3 J	5.5	26	31	42	84	38	24
BERYLLIUM	0.31 U	0.33 U	0.31 U	0.31 U	0.31 U	0.31 U	0.38 U	0.48 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U	0.22 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	6.7	0.98 U	0.98 U	0.98 U	1.3 J	2.6	3.3	7.3	0.98 U	2.3
COBALT	0.55 J	4	1.4	3.3	12 J	0.4 J	14	6.6	2.2	28
COPPER	1.7 U	4.6	1.7 U	4.8	7.8 J	1.7 U	3	2.7	7	1.7 U
IRON	32000	47 U	47 U	47 U	410	3200	13000	47000	180	10000
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 U	1.3	1.8	0.45 U	0.45 U
MANGANESE	600	63	4.2 J	6.5	80 J	330	1400	4400	37	50
MERCURY	0.13 U	0.13 U	0.13 UJ	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	1.5 U	6	1.5 J	4.3	13 J	1.5 U	5.1	3.8	5	24
SELENIUM	1 J	0.89 U	0.89 U	0.89 U	1.1 J	1.1 J	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.059 J	0.086 J	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	6.6	0.82 U	0.82 U	0.82 U	2.6 J	1.1 J	4.8 J	10	0.82 U	1.7 J

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MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	0.047 U	0.047 U	0.21 J	NA	0.17 J	NA	NA	0.047 U	NA
PERCHLORATE	NA	0.15 J	0.12 J	0.11 J	NA	0.082 U	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	68 J	NA	NA	NA	NA	NA	NA	49 U	NA	460
TPH (C10-C32)	280 J	NA	NA	NA	NA	NA	NA	750	NA	230 U
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	0.0928 U	0.308 U	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	0.278 UJ	0.361 UJ	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-34I MSA-MW-34I-061518 20180615**	**MSA-MW-34S MSA-MW-34S- 20180615**	**MSA-MW-35S MSA-MW-35S- 20180514**	**MSA-MW-36S MSA-MW-36S- 20180514**	**MSA-MW-37S MSA-MW-37S- 20180514**	**MSA-MW-38S MSA-MW-38S- 20180710**	**MSA-MW-39S MSA-MW-39S- 20180702**	**MSA-MW-40I MSA-MW-40I-061418 20180614**	**MSA-MW-40S MSA-MW-40S- 20180614**	**MSA-MW-41I MSA-MW-41I-052218 20180522**
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	0.56 U	0.14 U	0.46 U	0.46 U	0.46 U	0.14 U	0.14 U	3.5 U	8.8 U	5.6 U
1,1,1-TRICHLOROETHANE	0.96 U	0.24 U	0.23 U	0.23 U	0.23 U	0.24 U	0.24 U	6 U	15 U	9.6 U
1,1,2,2-TETRACHLOROETHANE	0.52 U	0.13 U	0.32 U	0.32 U	0.32 U	0.13 U	0.13 U	3.3 U	8.1 U	5.2 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	0.41 U	0.41 UJ	0.41 UJ	0.41 UJ	0.41 U	0.41 U	10 U	26 U	16 UJ
1,1-DICHLOROETHANE	0.68 U	0.17 U	0.36 J	0.25 U	0.25 U	0.17 U	0.17 U	4.3 U	11 U	6.8 U
1,1-DICHLOROETHENE	0.76 U	0.19 U	0.27 U	0.27 U	0.27 U	0.19 U	0.19 UJ	4.8 U	12 U	7.6 U
1,1-DICHLOROPROPENE	0.56 U	0.14 U	0.28 U	0.28 U	0.28 U	0.14 U	0.14 U	3.5 U	8.8 U	5.6 U
1,2,3-TRICHLOROBENZENE	2.2 U	0.54 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.54 U	0.54 U	14 U	34 U	22 U
1,2,3-TRICHLOROPROPANE	0.96 U	0.24 U	0.54 U	0.54 U	0.54 U	0.24 U	0.24 U	6 U	15 U	9.6 U
1,2,3-TRIMETHYLBENZENE	0.56 U	0.14 UJ	0.22 U	0.22 U	0.22 U	0.14 U	0.14 U	3.5 U	8.8 U	5.6 UJ
1,2,4-TRICHLOROBENZENE	1 U	0.26 U	0.27 U	0.27 U	0.27 U	0.26 U	0.26 U	6.5 U	16 U	15 J
1,2,4-TRIMETHYLBENZENE	0.28 U	0.07 U	0.24 U	0.24 U	0.24 U	0.07 U	0.07 U	1.8 U	4.4 U	2.8 U
1,2-DIBROMO-3-CHLOROPROPANE	3.6 U	0.91 U	0.47 U	0.47 U	0.47 U	0.91 U	0.91 U	23 U	57 U	36 U
1,2-DIBROMOETHANE	0.48 U	0.12 U	0.23 U	0.23 U	0.23 U	0.12 U	0.12 U	3 U	7.5 U	4.8 U
1,2-DICHLOROBENZENE	0.6 U	0.15 U	0.26 U	0.26 U	0.26 U	0.15 U	0.22 J	3.8 U	9.4 U	6 U
1,2-DICHLOROETHANE	3.9 J	0.43 J	0.33 J	0.3 U	0.3 U	0.21 U	0.32 J	5.3 U	13 U	110
1,2-DICHLOROPROPANE	0.6 U	0.15 U	0.3 U	0.3 U	0.3 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
1,3-DICHLOROBENZENE	0.6 U	0.15 U	0.32 U	0.32 U	0.32 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
1,3-DICHLOROPROPANE	0.84 U	0.21 U	0.29 U	0.29 U	0.29 U	0.21 U	0.21 U	5.3 U	13 U	8.4 U
1,4-DICHLOROBENZENE	0.64 U	0.16 U	0.23 U	0.23 U	0.23 U	0.16 U	0.16 U	4 U	10 U	7.6 J
2,2-DICHLOROPROPANE	1.2 U	0.31 U	1.5 J	0.34 UJ	0.34 UJ	0.31 U	0.42 J	7.8 U	19 U	12 U
2-BUTANONE	4.6 U	1.2 U	1 U	1 U	1 U	1.2 U	1.2 U	29 U	73 U	46 U
2-CHLOROETHYL VINYL ETHER	1 UR	0.26 UR	0.65 UR	0.65 UR	0.65 UR	0.26 UR	0.26 UR	6.5 UR	16 UR	10 UR
2-CHLOROTOLUENE	0.6 U	0.15 U	0.28 U	0.28 U	0.28 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
2-HEXANONE	2.2 U	0.54 U	1.2 U	1.2 U	1.2 U	0.54 U	0.54 U	14 U	34 U	22 U
4-CHLOROTOLUENE	0.36 U	0.09 U	0.23 U	0.23 U	0.23 U	0.09 U	0.09 U	2.3 U	5.6 U	3.6 U
4-ISOPROPYLTOLUENE	0.52 U	0.13 U	0.29 U	0.29 U	0.29 U	0.13 U	0.13 U	3.3 U	8.1 U	5.2 U
4-METHYL-2-PENTANONE	1.7 U	0.42 U	0.71 U	0.71 U	0.71 U	0.42 U	0.42 U	11 U	26 U	17 U
ACETONE	22 U	5.4 U	1.8 U	1.8 U	1.8 U	5.4 U	5.4 U	140 U	340 U	220 U
BENZENE	1.9 J	0.15 J	0.28 U	0.28 U	0.28 U	0.13 U	1.3	3.3 U	8.1 U	28 J
BROMOBENZENE	0.48 U	0.12 U	0.31 U	0.31 U	0.31 U	0.12 U	0.12 U	3 U	7.5 U	4.8 U
BROMOCHLOROMETHANE	0.56 U	0.14 U	0.47 UJ	0.47 UJ	0.47 UJ	0.14 U	0.14 U	3.5 U	8.8 U	5.6 U
BROMODICHLOROMETHANE	0.68 U	0.17 U	0.3 U	0.3 U	0.3 U	0.17 U	0.17 U	4.3 U	11 U	6.8 U
BROMOFORM	3 U	0.76 UJ	0.43 U	0.43 U	0.43 U	0.76 UJ	0.76 U	19 U	48 U	30 U
BROMOMETHANE	1.7 U	0.42 U	0.42 UJ	0.42 UJ	0.42 UJ	0.42 U	0.42 U	11 U	26 U	17 U
CARBON DISULFIDE	1.1 U	0.28 U	0.34 U	0.34 U	0.34 U	0.28 U	0.28 U	7 U	18 U	11 U
CARBON TETRACHLORIDE	1 U	0.26 U	0.35 U	0.35 U	0.35 U	0.26 U	0.26 U	6.5 U	16 U	10 U
CHLOROBENZENE	0.56 U	0.14 U	0.32 U	0.32 U	0.32 U	0.14 U	4.7	3.5 U	8.8 U	310
CHLORODIBROMOMETHANE	1.6 U	0.39 U	0.25 U	0.25 U	0.25 U	0.39 UJ	0.39 U	9.8 U	24 U	16 U
CHLORODIFLUOROMETHANE	4 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	25 UJ	63 UJ	40 UJ
CHLOROETHANE	3.3 U	0.83 U	0.41 U	0.41 U	0.41 U	0.83 U	0.83 U	21 U	52 U	33 U
CHLOROFORM	0.52 U	0.13 U	0.31 U	0.31 U	0.31 U	0.13 U	0.13 U	3.3 U	8.1 U	5.2 U
CHLOROMETHANE	0.8 U	0.2 U	0.43 U	0.43 U	0.43 U	0.2 U	0.2 U	5 U	13 U	8 U
CIS-1,2-DICHLOROETHENE	23	2	9.7	0.3 U	0.3 U	0.16 U	3.6	1200	3300	950
CIS-1,3-DICHLOROPROPENE	2.4 U	0.61 U	0.26 U	0.26 U	0.26 U	0.61 U	0.61 UJ	15 U	38 U	24 U
DIBROMOMETHANE	0.36 U	0.09 UJ	0.46 U	0.46 U	0.46 U	0.09 U	0.09 U	2.3 U	5.6 U	3.6 U
DICHLORODIFLUOROMETHANE	1.4 UJ	0.35 U	0.5 UJ	0.5 UJ	0.5 UJ	0.35 U	0.35 U	8.8 UJ	22 UJ	14 UJ
DIISOPROPYL ETHER	0.68 U	0.17 U	0.44 U	0.44 U	0.44 U	0.17 U	0.17 U	4.3 U	11 U	6.8 UJ

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-34I** **MSA-MW-34I-061518** **20180615**	**MSA-MW-34S** **MSA-MW-34S-** **20180615**	**MSA-MW-35S** **MSA-MW-35S-** **20180514**	**MSA-MW-36S** **MSA-MW-36S-** **20180514**	**MSA-MW-37S** **MSA-MW-37S-** **20180514**	**MSA-MW-38S** **MSA-MW-38S-** **20180710**	**MSA-MW-39S** **MSA-MW-39S-** **20180702**	**MSA-MW-40I** **MSA-MW-40I-061418** **20180614**	**MSA-MW-40S** **MSA-MW-40S-** **20180614**	**MSA-MW-41I** **MSA-MW-41I-052218** **20180522**
ETHYL TERT-BUTYL ETHER	0.6 U	0.15 U	0.35 U	0.35 U	0.35 U	0.15 U	0.15 U	3.8 U	9.4 U	6 UJ
ETHYLBENZENE	0.44 U	0.11 U	0.26 U	0.26 U	0.26 U	0.11 U	0.11 U	2.8 U	6.9 U	4.4 U
HEXACHLOROBUTADIENE	3.3 U	0.83 U	0.36 UJ	0.36 UJ	0.36 UJ	0.83 UJ	0.83 UJ	21 U	52 U	33 U
ISOPROPYLBENZENE	0.36 U	0.09 U	0.21 U	0.21 U	0.21 U	0.09 U	0.09 U	2.3 U	5.6 U	3.6 U
M+P-XYLENES	4.8 J	0.08 U	0.24 U	0.24 U	0.24 U	0.08 U	0.08 U	2 U	5 U	3.2 U
METHYL TERT-BUTYL ETHER	0.28 U	0.07 U	0.27 U	0.27 U	0.27 U	0.07 U	0.07 U	1.8 U	4.4 U	2.8 U
METHYLENE CHLORIDE	10 U	2.6 U	0.53 U	0.53 U	0.53 U	2.6 U	2.6 U	66 U	160 U	100 U
NAPHTHALENE	1.3 U	0.32 U	0.25 U	0.25 U	0.25 U	0.32 U	0.32 U	8 U	20 U	13 U
N-BUTYLBENZENE	0.56 U	0.14 UJ	0.21 U	0.21 U	0.21 U	0.14 UJ	0.14 UJ	3.5 U	8.8 U	5.6 U
N-PROPYLBENZENE	0.6 U	0.15 U	0.45 U	0.45 U	0.45 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
O-XYLENE	2.8 J	0.09 U	0.28 U	0.28 U	0.28 U	0.09 U	0.09 U	2.3 U	5.6 U	3.6 U
SEC-BUTYLBENZENE	0.52 U	0.13 U	0.27 U	0.27 U	0.27 U	0.13 U	0.16 J	3.3 U	8.1 U	5.2 U
STYRENE	0.4 U	0.1 U	0.23 U	0.23 U	0.23 U	0.1 U	0.1 U	2.5 U	6.3 U	4 U
TERT-AMYL METHYL ETHER	0.44 U	0.11 U	0.29 U	0.29 U	0.29 U	0.11 U	0.11 U	2.8 U	6.9 U	4.4 UJ
TERT-BUTYLBENZENE	0.56 U	0.14 U	0.26 U	0.26 U	0.26 U	0.14 U	0.14 J	3.5 U	8.8 U	5.6 U
TERTIARY-BUTYL ALCOHOL	6.8 U	1.7 U	4.6 U	4.6 U	4.6 U	1.7 U	1.7 U	42 UJ	110 UJ	180 U
TETRACHLOROETHENE	0.6 U	0.15 U	0.3 U	0.3 U	0.3 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
TOLUENE	0.56 U	0.14 U	0.23 U	0.23 U	0.23 U	0.14 U	0.15 J	3.5 U	8.8 U	5.6 U
TOTAL XYLENES	7.6 J	0.15 U	0.24 U	0.24 U	0.24 U	0.15 U	0.15 U	3.8 U	9.4 U	6 U
TRANS-1,2-DICHLOROETHENE	0.76 U	0.19 U	0.29 U	0.29 U	0.29 U	0.19 U	0.25 J	40	80	7.9 J
TRANS-1,3-DICHLOROPROPENE	2.7 U	0.67 U	0.31 U	0.31 U	0.31 U	0.67 U	0.67 U	17 U	42 U	27 U
TRICHLOROETHENE	0.41 U	0.32 U	2	0.33 U	0.33 U	0.15 U	3.2	120	60 U	280
TRICHLOROFLUOROMETHANE	1.8 U	0.45 U	0.5 U	0.5 U	0.5 U	0.45 U	0.45 U	11 U	28 U	18 UJ
VINYL ACETATE	0.76 U	0.19 UJ	0.28 U	0.28 U	0.28 U	0.19 UJ	0.19 UJ	4.8 U	12 U	7.6 UJ
VINYL CHLORIDE	82	1.5	2.1 J	0.45 UJ	0.45 UJ	0.2 U	1.9	39	56 J	1100
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	2.1 NJ	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	2.5 NJ	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	3.2 NJ	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	4.4 NJ	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	120 NJ	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-34I	MSA-MW-34S	MSA-MW-35S	MSA-MW-36S	MSA-MW-37S	MSA-MW-38S	MSA-MW-39S	MSA-MW-40I	MSA-MW-40S	MSA-MW-41I
SAMPLE ID	MSA-MW-34I-061518	MSA-MW-34S-20180615	MSA-MW-35S-20180514	MSA-MW-36S-20180514	MSA-MW-37S-20180514	MSA-MW-38S-20180710	MSA-MW-39S-20180702	MSA-MW-40I-061418	MSA-MW-40S-20180614	MSA-MW-41I-052218
SAMPLE DATE	20180615							20180614	20180614	20180522
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	0.39 U	0.34 U	1.3 J	0.24 UJ	0.25 UJ	0.36 U	10	5	5.2	380
TOTAL METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	1.8 J	0.75 U	1.8 J	0.75 U	11	47	7.4	5	2.5 J
BARIUM	54	68	60	23	40	38	27	12	14	100
BERYLLIUM	2.8	1	4.4	0.63 U	0.31 U	0.68 J	0.31 U	0.92 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.23 J	0.26 J	0.21 U	0.21 U	0.21 U	0.21 U	0.33 J	0.21 U	0.21 U
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.98 U	1.6 J	0.98 U	0.98 U	0.98 U	1.1 J	1.2 J	1.5 J	0.98 U	1.7 J
COBALT	230	120	330	91	16	26	3.6	3.5	11	0.41 J
COPPER	17	23	2.1	2	4.6	5.7	1.7 U	1.7 U	13 J+	7.9
IRON	930	540	6500	1900	2000	23000	49000	17000	7700	2000
LEAD	0.45 U	0.54 J	0.65 J	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	2.9
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	130	65	530	13	1200	400	220	2900	1900	2000
MERCURY	0.13 U	0.46	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	280	160	160	120	1.5 U	16	2.5	5.4	3.1	1.5 U
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.89 U	0.89 U	1.1 J	0.89 U	0.89 U	0.89 U	0.89 U	3 U	1.4 U	1.4 J
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.27 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	1.1 J	28	0.89 J	2.2 J	3.8 J	9.1	4.3 J	1.4 J	1 J	17
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	1 J	0.75 U	0.75 U	0.75 U	8.3	37	7.5	2.1 J	0.75 U
BARIUM	54	65	54	23	45	38	27	12	14	100
BERYLLIUM	2.7	0.89 J	4.3	0.66 J	0.31 U	0.31 U	0.31 U	0.89 U	0.31 U	0.31 U
CADMIUM	0.21 U	0.21 U	0.25 J	0.21 U	0.21 U	0.21 U	0.21 U	0.31 J	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	1.4 J	0.98 U	0.98 U
COBALT	220	120	290	99	17	20	3.7	3.5	11	0.23 J
COPPER	21	5.8	1.8 J	2.7	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
IRON	780	210	5800	990	1100	22000	45000	17000	5800	1800
LEAD	0.45 U	0.45 U	0.53 J	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MANGANESE	130	63	470	12	1300	390	230 J	2900	1900	670
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	280	150	160	130	1.5 U	12	2	5.2	3.1	1.5 U
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	3.1 U	1.1 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.27 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	0.91 J	14	0.82 U	0.82 U	1.1 J	0.82 U	1.8 J	1.2 J	0.82 U	1.8 J

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-34I MSA-MW-34I-061518 20180615	MSA-MW-34S MSA-MW-34S- 20180615	MSA-MW-35S MSA-MW-35S- 20180514	MSA-MW-36S MSA-MW-36S- 20180514	MSA-MW-37S MSA-MW-37S- 20180514	MSA-MW-38S MSA-MW-38S- 20180710	MSA-MW-39S MSA-MW-39S- 20180702	MSA-MW-40I MSA-MW-40I-061418 20180614	MSA-MW-40S MSA-MW-40S- 20180614	MSA-MW-41I MSA-MW-41I-052218 20180522
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERCHLORATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	49 U	49 U	49 U	49 U	49 U	88 J	NA	1700	NA
TPH (C10-C32)	NA	230 U	930	220 U	300 J	210 U	2100	NA	960	NA
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-41S MSA-MW-41S- 20180522	MSA-MW-42I MSA-MW-42I-052118 20180521	MSA-MW-42S MSA-MW-42S- 20180521	MSA-MW-43S MSA-MW-43S- 20180702	MSA-MW-44S MSA-MW-44S- 20180615	MSA-MW-45S MSA-MW-45S- 20180524	MSA-MW-46D MSA-MW-46D- 20180628	MSA-MW-46I MSA-MW-46I-062818 20180628	MSA-MW-46S MSA-MW-46S- 20180628	MSA-MW-47D MSA-MW-47D- 20180627	MSA-MW-47I MSA-MW-47I-062718 20180627
VOLATILES (UG/L)											
1,1,1,2-TETRACHLOROETHANE	14 U	5.6 U	28 U	0.14 U	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
1,1,1-TRICHLOROETHANE	24 U	9.6 U	48 U	0.24 U	0.24 U	240 U	0.24 U	4.8 U	0.24 U	9.6 U	6 U
1,1,2,2-TETRACHLOROETHANE	13 U	5.2 U	26 U	0.13 U	0.13 U	130 U	0.13 U	2.6 U	0.13 U	5.2 U	3.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	41 UJ	16 UJ	82 UJ	0.41 U	0.41 U	410 UJ	0.41 U	8.2 U	0.41 U	16 U	10 U
1,1-DICHLOROETHANE	17 U	6.8 U	34 U	0.17 U	2.4	170 U	0.17 U	3.4 U	0.75 J	6.8 U	4.3 U
1,1-DICHLOROETHENE	19 U	7.6 U	38 U	0.19 UJ	0.19 U	190 U	0.19 U	3.8 U	0.19 U	7.6 U	11 J
1,1-DICHLOROPROPENE	14 U	5.6 U	28 U	0.14 U	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
1,2,3-TRICHLOROBENZENE	54 U	22 U	110 U	0.54 U	0.54 U	540 U	0.54 U	11 U	0.54 U	22 U	14 U
1,2,3-TRICHLOROPROPANE	24 U	9.6 U	48 U	0.24 U	0.24 U	240 U	0.24 U	4.8 U	0.24 U	9.6 U	6 U
1,2,3-TRIMETHYLBENZENE	14 UJ	5.6 UJ	28 UJ	0.14 U	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
1,2,4-TRICHLOROBENZENE	26 U	10 U	52 U	0.26 U	0.26 U	990 J	0.26 U	5.2 U	0.26 U	10 U	14 J
1,2,4-TRIMETHYLBENZENE	7 U	2.8 U	54 J	0.07 U	0.07 U	70 U	0.07 U	1.4 U	0.07 U	2.8 U	1.8 U
1,2-DIBROMO-3-CHLOROPROPANE	91 U	36 U	180 U	0.91 U	0.91 U	910 U	0.91 U	18 U	0.91 U	36 U	23 U
1,2-DIBROMOETHANE	12 U	4.8 U	24 U	0.12 U	0.12 U	120 U	0.12 U	2.4 U	0.12 U	4.8 U	3 U
1,2-DICHLOROBENZENE	15 U	6 U	30 U	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
1,2-DICHLOROETHANE	50 J	8.4 U	42 U	0.21 U	0.21 U	480 J	0.6 J	22	0.21 U	13 J	39
1,2-DICHLOROPROPANE	15 U	6 U	30 U	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
1,3-DICHLOROBENZENE	15 U	6 U	30 U	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
1,3-DICHLOROPROPANE	21 U	8.4 U	42 U	0.21 U	0.21 U	210 U	0.21 U	4.2 U	0.21 U	8.4 U	5.3 U
1,4-DICHLOROBENZENE	16 U	6.4 U	32 U	0.16 U	2.4	210 J	0.16 U	3.2 U	0.16 U	6.4 U	5.5 J
2,2-DICHLOROPROPANE	31 U	12 U	62 U	0.31 U	0.31 U	310 U	0.31 U	6.2 U	0.31 U	12 U	7.8 U
2-BUTANONE	120 U	46 U	230 U	1.2 U	1.2 U	1200 U	1.2 U	23 U	1.2 U	46 U	29 U
2-CHLOROETHYL VINYL ETHER	26 UR	10 UR	52 UR	0.26 UR	0.26 UR	260 UR	0.26 UR	5.2 UR	0.26 UR	10 UR	6.5 UR
2-CHLOROTOLUENE	15 U	6 U	30 U	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
2-HEXANONE	54 U	22 U	110 U	0.54 U	0.54 U	540 U	0.54 U	11 U	0.54 U	22 UJ	14 UJ
4-CHLOROTOLUENE	9 U	3.6 U	18 U	0.09 U	0.09 U	90 U	0.09 U	1.8 U	0.09 U	3.6 U	2.3 U
4-ISOPROPYLTOLUENE	13 U	5.2 U	26 U	0.13 U	0.13 U	130 U	0.13 U	2.6 U	0.13 U	5.2 U	3.3 U
4-METHYL-2-PENTANONE	42 U	17 U	84 U	0.42 U	0.42 U	420 U	0.42 U	8.4 U	0.42 U	17 UJ	11 UJ
ACETONE	540 U	220 U	1100 U	5.4 U	5.4 U	5400 U	5.4 U	110 U	5.4 U	220 U	140 U
BENZENE	21 J	7.1 J	26 U	0.13 J	0.33 J	170 J	0.13 U	4.8 J	0.13 U	5.2 U	7.4 J
BROMOBENZENE	12 U	4.8 U	24 U	0.12 U	0.12 U	120 U	0.12 U	2.4 U	0.12 U	4.8 U	3 U
BROMOCHLOROMETHANE	14 U	5.6 U	28 U	0.14 U	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
BROMODICHLOROMETHANE	17 U	6.8 U	34 U	0.17 U	0.17 U	170 U	0.17 U	3.4 U	0.17 U	6.8 U	4.3 U
BROMOFORM	76 U	30 U	150 U	0.76 U	0.76 U	760 U	0.76 U	15 U	0.76 U	30 U	19 U
BROMOMETHANE	42 U	17 U	84 U	0.42 U	0.42 U	420 U	0.42 U	8.4 U	0.42 U	17 U	11 U
CARBON DISULFIDE	28 U	11 U	56 U	0.28 U	0.28 U	280 U	0.28 UJ	5.6 UJ	0.28 UJ	11 U	7 U
CARBON TETRACHLORIDE	26 U	10 U	52 U	0.26 U	0.26 U	260 U	0.26 U	5.2 U	0.26 U	10 U	6.5 U
CHLOROBENZENE	14 U	5.6 U	28 U	0.14 U	0.33 J	160 J	0.14 U	72	0.14 U	5.6 U	57
CHLORODIBROMOMETHANE	39 U	16 U	78 U	0.39 U	0.39 U	390 U	0.39 U	7.8 U	0.39 U	16 U	9.8 U
CHLORODIFLUOROMETHANE	100 UJ	40 UJ	200 UJ	1 UJ	1 UJ	1000 UJ	1 UJ	20 UJ	1 UJ	40 UJ	25 UJ
CHLOROETHANE	83 U	33 U	170 U	0.83 U	1	830 U	0.83 U	17 U	0.83 U	33 U	21 U
CHLOROFORM	13 U	5.2 U	26 U	0.13 U	0.13 U	130 U	0.13 U	2.6 U	0.13 U	20 J	23 J
CHLOROMETHANE	20 U	8 U	40 U	0.2 U	0.2 U	200 U	0.2 U	4 U	0.41 U	8 U	5 U
CIS-1,2-DICHLOROETHENE	1100	820	600	0.41 J	1.5	21000	11	320	0.32 J	110	400
CIS-1,3-DICHLOROPROPENE	61 U	24 U	120 U	0.61 UJ	0.61 U	610 U	0.61 U	12 U	0.61 U	24 U	15 U
DIBROMOMETHANE	9 U	3.6 U	18 U	0.09 U	0.09 U	90 U	0.09 U	1.8 U	0.09 U	3.6 U	2.3 U
DICHLORODIFLUOROMETHANE	35 UJ	14 UJ	70 UJ	0.35 U	0.35 UJ	350 UJ	0.35 U	7 U	0.35 U	14 U	8.8 U
DIISOPROPYL ETHER	17 UJ	6.8 UJ	34 UJ	0.17 U	0.17 U	170 U	0.17 U	3.4 U	0.17 U	6.8 U	4.3 U

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-41S MSA-MW-41S- 20180522	MSA-MW-42I MSA-MW-42I-052118 20180521	MSA-MW-42S MSA-MW-42S- 20180521	MSA-MW-43S MSA-MW-43S- 20180702	MSA-MW-44S MSA-MW-44S- 20180615	MSA-MW-45S MSA-MW-45S- 20180524	MSA-MW-46D MSA-MW-46D- 20180628	MSA-MW-46I MSA-MW-46I-062818 20180628	MSA-MW-46S MSA-MW-46S- 20180628	MSA-MW-47D MSA-MW-47D- 20180627	MSA-MW-47I MSA-MW-47I-062718 20180627
ETHYL TERT-BUTYL ETHER	15 UJ	6 UJ	30 UJ	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
ETHYLBENZENE	11 U	4.4 U	200	0.11 U	0.11 J	110 U	0.11 U	2.2 U	0.11 U	4.4 U	2.8 U
HEXACHLOROBUTADIENE	83 U	33 U	170 U	0.83 UJ	0.83 U	830 U	0.83 UJ	17 UJ	0.83 UJ	33 U	21 U
ISOPROPYLBENZENE	9 U	3.6 U	18 U	0.09 U	0.25 J	90 U	0.09 U	1.8 U	0.09 U	3.6 U	2.3 U
M+P-XYLENES	8 U	99	3900	0.08 U	0.19 J	80 U	0.08 U	1.6 U	0.08 U	3.2 U	2 U
METHYL TERT-BUTYL ETHER	7 U	2.8 U	14 U	0.07 U	0.07 U	70 U	0.07 U	1.4 U	0.07 U	2.8 U	1.8 U
METHYLENE CHLORIDE	260 U	100 U	520 U	2.6 U	2.6 U	2600 U	2.6 U	52 U	2.6 U	100 U	66 U
NAPHTHALENE	32 U	13 U	64 U	0.32 U	4.7	320 U	0.32 U	6.4 U	0.32 U	13 U	8 U
N-BUTYLBENZENE	14 U	5.6 U	28 U	0.14 UJ	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
N-PROPYLBENZENE	15 U	6 U	30 U	0.15 U	0.21 J	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
O-XYLENE	9 U	25 J	320	0.09 U	0.13 J	90 U	0.09 U	1.8 U	0.09 U	3.6 U	2.5 J
SEC-BUTYLBENZENE	13 U	5.2 U	26 U	0.13 U	0.13 U	130 U	0.13 U	2.6 U	0.13 U	5.2 U	3.3 U
STYRENE	10 U	4 U	20 U	0.1 U	0.1 U	100 U	0.1 U	2 U	0.1 U	4 U	2.5 U
TERT-AMYL METHYL ETHER	11 UJ	4.4 UJ	22 UJ	0.11 U	0.11 U	110 U	0.11 U	2.2 U	0.11 U	4.4 U	2.8 U
TERT-BUTYLBENZENE	14 U	5.6 U	28 U	0.14 U	0.14 U	140 U	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
TERTIARY-BUTYL ALCOHOL	200 U	68 U	340 U	1.7 U	1.7 U	1700 U	1.7 U	34 U	1.7 U	160 U	55 U
TETRACHLOROETHENE	15 U	6 U	30 U	0.15 U	0.15 U	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
TOLUENE	14 U	10 J	170 J	0.14 U	0.22 J	920 J	0.14 U	2.8 U	0.14 U	5.6 U	3.5 U
TOTAL XYLENES	15 U	120	4200	0.15 U	0.32 J	150 U	0.15 U	3 U	0.15 U	6 U	3.8 U
TRANS-1,2-DICHLOROETHENE	19 U	7.6 U	38 U	0.19 U	0.46 J	190 U	0.19 U	3.8 U	0.19 U	7.6 U	4.8 U
TRANS-1,3-DICHLOROPROPENE	67 U	27 U	130 U	0.67 U	0.67 U	670 U	0.67 U	13 U	0.67 U	27 U	17 U
TRICHLOROETHENE	2400	7.9 J	20 U	0.1 U	0.1 U	35000	38	510	0.1 J	1200	980
TRICHLOROFLUOROMETHANE	45 UJ	18 UJ	90 UJ	0.45 U	0.45 U	450 UJ	0.45 U	9 U	0.45 U	18 U	11 U
VINYL ACETATE	19 UJ	7.6 UJ	38 UJ	0.19 UJ	0.19 U	190 U	0.19 U	3.8 U	0.19 U	7.6 U	4.8 U
VINYL CHLORIDE	770	340	270	0.2 U	2.3	13000	0.95 J	260	0.2 U	26 J	370
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)											
1,3-OXATHIOLANE	NA	NA	NA	NA	4 NJ	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)											
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)											
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-41S MSA-MW-41S- 20180522	MSA-MW-42I MSA-MW-42I-052118 20180521	MSA-MW-42S MSA-MW-42S- 20180521	MSA-MW-43S MSA-MW-43S- 20180702	MSA-MW-44S MSA-MW-44S- 20180615	MSA-MW-45S MSA-MW-45S- 20180524	MSA-MW-46D MSA-MW-46D- 20180628	MSA-MW-46I MSA-MW-46I-062818 20180628	MSA-MW-46S MSA-MW-46S- 20180628	MSA-MW-47D MSA-MW-47D- 20180627	MSA-MW-47I MSA-MW-47I-062718 20180627
SEMIVOLATILES (UG/L)											
1,4-DIOXANE	210	43	0.34 U	1.2	21	650	0.39 U	30	1.6	23	110
TOTAL METALS (UG/L)											
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	4.1 J	6.5	1.8 J	1.1 J	0.75 U	0.94 J	4.9 J	1.5 J	3.4 J	4.6 J	7.2
BARIUM	26	140	31	74	210	22	37	27	26	19	28
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.4 J	0.31 U	0.58 J	0.31 U	0.31 U	1.8
CADMIUM	6.9	0.26 J	0.21 U	0.21 U	0.21 U	2600	0.21 U	0.64 J	0.21 U	0.21 U	79
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	1.6 J	3.6	2.3	0.98 U	1.2 J	4000 J-	0.98 U	0.98 U	2.7	0.98 U	2.8
COBALT	43	2.4	3.6	0.2 J	0.36 J	23 J	9.3	190	6.3	25	81
COPPER	2.5	2.7	2.9	3.5	4.3	9.4 J	1.7 U	1.7 U	2.1	1.7 U	50
IRON	30000	26000	7600	650	4800	170	8500	10000	6400	8800	5000
LEAD	0.45 U	0.85 J	0.45 J	0.45 U	0.45 U	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	2800	850	140	490	1000	2600 J	22 J-	1400 J-	710 J-	390 J-	3500 J-
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.66
MOLYBDENUM	1.1 U	1.5 J	1.1 U	1.1 U	1.1 U	1.1 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	26	7.7	3.5	1.5 U	1.5 U	130 J	11	94	3.7	14	33
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	2.1 J	1.2 J	0.91 J	0.89 U	1.1 J	4.6 J	0.89 U	7.3	1.5 U	0.89 U	20
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.053 U	0.074 J	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	11	1.6
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	0.82 U	1.5 J	3.3 J	0.82 U	10	67	0.82 U	0.82 U	0.94 J	0.82 U	2.3 J
DISSOLVED METALS (UG/L)											
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	4.5 J	6.6	1.8 J	1.3 J	0.75 U	1.3 J	4.7 J	1.1 J	2.3 J	3.8 J	4.6 J
BARIUM	19	140	30	71	210	22	41	25	26	18	25
BERYLLIUM	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.45 J	0.31 U	0.53 J	0.31 U	0.31 U	0.76 J
CADMIUM	1.8	0.21 U	0.21 U	0.21 U	0.21 U	2900	0.21 U	0.53 J	0.21 U	0.21 U	18
CHROMIUM	1.2 J	2.7	2.1	0.98 U	1.3 J	4800 J-	0.98 U	0.98 U	3.5	0.98 U	1.2 J
COBALT	43	2.2	3.6	0.2 J	0.42 J	25 J	10	170	6.1	23	79
COPPER	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	10 J	1.7 U	1.7 U	1.7 U	1.7 U	12 U
IRON	32000	26000	7500	1100	8100	47 U	9200	9800	5800	8200	3700
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
MANGANESE	2800	860	140	510 J	1200	2700 J	24 J-	1300 J-	700 J-	360 J-	3400 J-
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.5 J	1.1 U	1.1 U	1.1 U	1.1 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	26	7.3	3.4	1.5 U	1.5 U	150 J	12	88	3.5	12	32
SELENIUM	2.1 J	1.1 J	0.89 U	0.89 U	1.5 J	5	0.89 U	6.6	1.3 U	0.89 U	9.1
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.3 J	0.29 J
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	0.82 U	0.92 J	2.6 J	0.82 U	9.1	100	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U

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MISCELLANEOUS PARAMETERS (UG/L)											
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
PERCHLORATE	NA	NA	NA	NA	NA	NA	0.082 U	0.082 U	0.082 U	0.082 U	0.082 U
MISCELLANEOUS PARAMETERS (MG/L)											
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)											
TPH (C06-C10)	49 U	NA	65 J	74 J	52 J	25000	NA	NA	49 U	NA	NA
TPH (C10-C32)	490	NA	1000	1300	780	3200	NA	NA	590	NA	NA
RADIONUCLIDES (PCI/L)											
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-47S MSA-MW-47S- 20180627	MSA-MW-48D MSA-MW-48D- 20180629	MSA-MW-48I MSA-MW-48I-062918 20180629	MSA-MW-48S MSA-MW-48S- 20180629	MSA-MW-49D MSA-MW-49D- 20180628	MSA-MW-49I MSA-MW-49I-062818 20180628	MSA-MW-49S MSA-MW-49S- 20180628	MSA-MW-50D MSA-MW-50D- 20180626	MSA-MW-50I MSA-MW-50I-062618 20180626	MSA-MW-50S MSA-MW-50S- 20180626
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	0.35 U	2.8 U	35 U	0.56 U	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
1,1,1-TRICHLOROETHANE	0.6 U	4.8 U	60 U	0.96 U	68 J	30 U	4.8 U	0.24 U	0.24 U	0.96 U
1,1,2,2-TETRACHLOROETHANE	0.33 U	2.6 U	33 U	0.52 U	22 U	16 U	2.6 U	0.13 U	0.13 U	0.52 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1 U	8.2 U	100 U	1.6 U	68 U	51 U	8.2 U	0.41 U	0.41 U	1.6 U
1,1-DICHLOROETHANE	0.43 U	3.4 U	43 U	0.68 U	28 U	26 J	4 J	0.17 U	0.17 U	0.68 U
1,1-DICHLOROETHENE	1.3 J	3.8 U	48 U	0.76 U	150 J	130	17 J	0.19 U	0.27 J	0.76 U
1,1-DICHLOROPROPENE	0.35 U	2.8 U	35 U	0.56 U	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
1,2,3-TRICHLOROBENZENE	1.4 U	11 U	140 U	2.2 U	90 U	68 U	11 U	0.54 U	0.54 U	2.2 U
1,2,3-TRICHLOROPROPANE	0.6 U	4.8 U	60 U	0.96 U	40 U	30 U	4.8 U	0.24 U	0.24 U	0.96 U
1,2,3-TRIMETHYLBENZENE	0.35 U	2.8 U	35 U	0.56 U	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
1,2,4-TRICHLOROBENZENE	0.65 U	9.9 J	65 U	1 U	43 U	33 U	5.2 U	0.26 U	0.26 U	1 U
1,2,4-TRIMETHYLBENZENE	0.18 U	1.4 U	18 U	0.28 U	12 U	8.8 U	1.4 U	0.07 U	0.07 U	0.28 U
1,2-DIBROMO-3-CHLOROPROPANE	2.3 U	18 U	230 U	3.6 U	150 U	110 U	18 U	0.91 U	0.91 U	3.6 U
1,2-DIBROMOETHANE	0.3 U	2.4 U	30 U	0.48 U	20 U	15 U	2.4 U	0.12 U	0.12 U	0.48 U
1,2-DICHLOROBENZENE	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
1,2-DICHLOROETHANE	4.7	4.4 J	53 U	0.84 U	35 U	26 U	6 J	0.37 J	0.51 J	1.9 J
1,2-DICHLOROPROPANE	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
1,3-DICHLOROBENZENE	0.38 U	5.7 J	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
1,3-DICHLOROPROPANE	0.53 U	4.2 U	53 U	0.84 U	35 U	26 U	4.2 U	0.21 U	0.21 U	0.84 U
1,4-DICHLOROBENZENE	0.4 U	39	50 J	0.95 J	27 U	20 U	3.2 U	0.16 U	0.16 U	0.64 U
2,2-DICHLOROPROPANE	0.78 U	6.2 U	78 U	1.2 U	52 U	39 U	6.2 U	0.31 U	0.31 U	1.2 U
2-BUTANONE	2.9 U	23 U	290 U	4.6 U	190 U	150 U	23 U	1.2 U	1.2 U	4.6 U
2-CHLOROETHYL VINYL ETHER	0.65 UR	5.2 UR	65 UR	1 UR	43 UR	33 UR	5.2 UR	0.26 UR	0.26 UR	1 UR
2-CHLOROTOLUENE	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
2-HEXANONE	1.4 UJ	11 U	140 U	2.2 U	90 U	68 U	11 U	0.54 U	0.54 U	2.2 U
4-CHLOROTOLUENE	0.23 U	1.8 U	23 U	0.36 U	15 U	11 U	1.8 U	0.09 U	0.09 U	0.36 U
4-ISOPROPYLTOLUENE	0.33 U	2.6 U	33 U	0.52 U	22 U	16 U	2.6 U	0.13 U	0.13 U	0.52 U
4-METHYL-2-PENTANONE	1.1 UJ	8.4 U	110 U	1.7 U	70 U	53 U	8.4 U	0.42 UJ	0.42 UJ	1.7 UJ
ACETONE	14 UJ	110 U	1400 U	22 U	900 U	680 U	110 U	5.4 U	5.4 U	22 U
BENZENE	1.1 J	2.6 U	33 U	1.1 J	22 U	16 U	2.6 U	0.13 U	0.19 J	0.52 U
BROMOBENZENE	0.3 U	2.4 U	30 U	0.48 U	20 U	15 U	2.4 U	0.12 U	0.12 U	0.48 U
BROMOCHLOROMETHANE	0.35 U	2.8 U	35 U	0.56 U	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
BROMODICHLOROMETHANE	0.43 U	3.4 U	43 U	0.68 U	28 U	21 U	3.4 U	0.17 U	0.17 U	0.68 U
BROMOFORM	1.9 U	15 U	190 U	3 U	130 U	95 U	15 U	0.76 U	0.76 U	3 U
BROMOMETHANE	1.1 U	8.4 U	110 U	1.7 U	70 U	53 U	8.4 U	0.42 U	0.42 U	1.7 U
CARBON DISULFIDE	0.7 U	5.6 U	70 U	1.1 U	47 UJ	35 UJ	5.6 UJ	0.28 U	0.28 U	1.1 U
CARBON TETRACHLORIDE	0.65 U	5.2 U	65 U	1 U	43 U	33 U	5.2 U	0.26 U	0.26 U	1 U
CHLOROBENZENE	6.9	2.8 U	35 U	1.1 J	23 U	18 U	2.8 U	0.28 J	0.39 J	1.8 J
CHLORODIBROMOMETHANE	0.98 U	7.8 U	98 U	1.6 U	65 U	49 U	7.8 U	0.39 U	0.39 U	1.6 U
CHLORODIFLUOROMETHANE	2.5 UJ	20 UJ	250 UJ	4 UJ	170 UJ	130 UJ	20 UJ	1 UJ	1 UJ	4 UJ
CHLOROETHANE	2.1 U	17 U	210 U	3.3 U	140 U	100 U	17 U	0.83 U	0.83 U	3.3 U
CHLOROFORM	2.7	2.6 U	33 U	0.52 U	22 U	16 U	2.6 U	0.13 U	0.13 U	0.52 U
CHLOROMETHANE	0.5 U	4 U	50 U	0.8 U	33 U	25 U	4 U	0.2 U	0.2 U	0.8 U
CIS-1,2-DICHLOROETHENE	48	570	7200	1.2 J	2100	1300	170	16	51	80
CIS-1,3-DICHLOROPROPENE	1.5 UJ	12 U	150 U	2.4 U	100 U	76 U	12 U	0.61 UJ	0.61 UJ	2.4 UJ
DIBROMOMETHANE	0.23 U	1.8 U	23 U	0.36 U	15 U	11 U	1.8 U	0.09 U	0.09 U	0.36 U
DICHLORODIFLUOROMETHANE	0.88 U	7 UJ	88 UJ	1.4 U	58 U	44 U	7 U	0.35 UJ	0.35 UJ	1.4 UJ
DIISOPROPYL ETHER	0.43 U	3.4 U	43 U	0.68 U	28 U	21 U	3.4 U	0.17 U	0.17 U	0.68 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	**MSA-MW-47S MSA-MW-47S- 20180627**	**MSA-MW-48D MSA-MW-48D- 20180629**	**MSA-MW-48I MSA-MW-48I-062918 20180629**	**MSA-MW-48S MSA-MW-48S- 20180629**	**MSA-MW-49D MSA-MW-49D- 20180628**	**MSA-MW-49I MSA-MW-49I-062818 20180628**	**MSA-MW-49S MSA-MW-49S- 20180628**	**MSA-MW-50D MSA-MW-50D- 20180626**	**MSA-MW-50I MSA-MW-50I-062618 20180626**	**MSA-MW-50S MSA-MW-50S- 20180626**
ETHYL TERT-BUTYL ETHER	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
ETHYLBENZENE	0.28 U	2.2 U	28 U	0.44 U	18 U	14 U	2.2 U	0.11 U	0.11 U	0.44 U
HEXACHLOROBUTADIENE	2.1 U	17 UJ	210 UJ	3.3 UJ	140 UJ	100 UJ	17 UJ	0.83 U	0.83 U	3.3 U
ISOPROPYLBENZENE	0.23 U	1.8 U	23 U	0.36 U	15 U	11 U	1.8 U	0.09 U	0.09 U	0.36 U
M+P-XYLENES	0.2 U	1.6 U	20 U	0.32 U	13 U	10 U	1.6 U	0.08 U	0.08 U	0.32 U
METHYL TERT-BUTYL ETHER	0.18 U	1.4 U	18 U	0.28 U	12 U	8.8 U	1.4 U	0.07 U	0.07 U	0.28 U
METHYLENE CHLORIDE	6.6 U	52 U	660 U	10 U	440 U	330 U	52 U	2.6 U	2.6 U	10 U
NAPHTHALENE	0.8 U	6.4 U	80 U	1.3 U	53 U	40 U	6.4 U	0.32 U	0.32 U	1.3 U
N-BUTYLBENZENE	0.35 U	2.8 UJ	35 UJ	0.56 UJ	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
N-PROPYLBENZENE	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
O-XYLENE	0.23 U	1.8 U	23 U	0.36 U	15 U	11 U	1.8 U	0.09 U	0.09 U	0.36 U
SEC-BUTYLBENZENE	0.33 U	2.6 U	33 U	0.52 U	22 U	16 U	2.6 U	0.13 U	0.13 U	0.52 U
STYRENE	0.25 U	2 U	25 U	0.4 U	17 U	13 U	2 U	0.1 U	0.1 U	0.4 U
TERT-AMYL METHYL ETHER	0.28 U	2.2 U	28 U	0.44 U	18 U	14 U	2.2 U	0.11 U	0.11 U	0.44 U
TERT-BUTYLBENZENE	0.35 U	2.8 U	35 U	0.56 U	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
TERTIARY-BUTYL ALCOHOL	12 U	34 U	420 U	6.8 U	280 U	210 U	34 U	1.7 U	1.7 U	6.8 U
TETRACHLOROETHENE	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.34 J	0.73 J
TOLUENE	0.35 U	2.8 U	73 J	0.64 J	23 U	18 U	2.8 U	0.14 U	0.14 U	0.56 U
TOTAL XYLENES	0.38 U	3 U	38 U	0.6 U	25 U	19 U	3 U	0.15 U	0.15 U	0.6 U
TRANS-1,2-DICHLOROETHENE	0.48 U	3.8 U	48 U	0.76 U	39 J	24 U	3.8 U	0.54 J	0.79 J	2.8 J
TRANS-1,3-DICHLOROPROPENE	1.7 UJ	13 U	170 U	2.7 U	110 U	84 U	13 U	0.67 U	0.67 U	2.7 U
TRICHLOROETHENE	110	370	1200	0.4 U	6400	3600	670	29	62	160
TRICHLOROFLUOROMETHANE	1.1 U	9 U	110 U	1.8 U	75 U	56 U	9 U	0.45 U	0.45 U	1.8 U
VINYL ACETATE	0.48 U	3.8 U	48 U	0.76 U	32 U	24 U	3.8 U	0.19 U	0.19 U	0.76 U
VINYL CHLORIDE	46	210	7700	120	280	530	37	3.2	5.4	18
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	NA	NA	NA	NA	NA	NA	3.2 R	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	8	260	14	NA	NA	NA	NA	NA	NA
ETHENE	NA	59	1900	150	NA	NA	NA	NA	NA	NA
METHANE	NA	220	2300	87	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-47S MSA-MW-47S- 20180627	MSA-MW-48D MSA-MW-48D- 20180629	MSA-MW-48I MSA-MW-48I-062918 20180629	MSA-MW-48S MSA-MW-48S- 20180629	MSA-MW-49D MSA-MW-49D- 20180628	MSA-MW-49I MSA-MW-49I-062818 20180628	MSA-MW-49S MSA-MW-49S- 20180628	MSA-MW-50D MSA-MW-50D- 20180626	MSA-MW-50I MSA-MW-50I-062618 20180626	MSA-MW-50S MSA-MW-50S- 20180626
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	23	19	42	3.1	26	26	14	0.98	1.7	3.1
TOTAL METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	2.5	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	9.9	0.75 U	8.6	0.76 J	0.75 U	0.75 U	0.75 U	0.75 U	11	0.75 U
BARIUM	35	22	28	36	16	13	21	19	18	14
BERYLLIUM	0.31 U	1.5	0.46 U	0.31 U	7.6	6.8	0.31 U	2.4	3.6	3.1
CADMIUM	0.21 U	36	32	0.52 J	20	23	0.46 J	2.5	1.1	8.4
CALCIUM	NA	36000	120000	280000	NA	NA	NA	NA	NA	NA
CHROMIUM	1.1 J	1.3 J	5	0.99 J	4.7	6.5	0.98 U	3.3	9.7	5.2
COBALT	7.9	180	120	0.34 J	200	110	74	100	170	100
COPPER	1.7 U	20	2	5	94	75	3.1	42	1.7 U	19
IRON	7800	47 U	8000	47 U	9000	35000	32000	17000	25000	30000
LEAD	0.45 U	0.45 U	0.45 U	0.45 U	1.5	0.85 J	0.45 U	0.59 J	0.45 U	1.9
MAGNESIUM	NA	22000	46000	36000	NA	NA	NA	NA	NA	NA
MANGANESE	3900 J-	3100 J-	3300 J-	6.7 J-	6600 J-	6200 J-	4500 J-	2100 J	2700 J	2400 J
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.7 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	3.1	77	31	2.7	97	71	22	58	52	86
POTASSIUM	NA	3700 J	9900	15000	NA	NA	NA	NA	NA	NA
SELENIUM	0.89 U	9	3.4 J	1.1 J	30	28	1.9 U	7.3	8.1	12
SILICON DIOXIDE	NA	8800	10000	33000	NA	NA	NA	NA	NA	NA
SILVER	0.053 U	0.073 J	0.17 J	0.053 U	1.1	1.7	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	56000 J	88000 J	25000 J	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U	0.38 J	0.25 J	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	1.2 J	0.82 U	1.4 J	2.8 J	9.3	4.7 J	0.82 U	2.6 J	14	4.3 J
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	2.3	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	9.4	0.75 U	8.4	1.1 J	0.75 U	0.75 U	0.75 U	1.3 J	12	0.75 U
BARIUM	34	23	29	36	15	15	22	21	18	14
BERYLLIUM	0.31 U	1.8	0.31 U	0.31 U	7.7	6.9	0.31 U	2.8	3.5	3
CADMIUM	0.21 U	35	16	0.62 J	19	24	0.48 J	2.6	1	8.1
CHROMIUM	1.1 J	1.3 J	5.5	1 J	4.8	5.6	0.98 U	3.5	9.9	5.1
COBALT	8.1	170	150	0.4 J	200	120	81	100	160	100
COPPER	1.7 U	19	1.7 J	12	97	77	1.7 U	32	6.7	11
IRON	7500	47 U	8700	47 U	8800	37000	35000	18000	25000	30000
LEAD	0.45 U	0.45 U	1	0.45 U	1.4	0.73 J	0.45 U	0.6 J	0.45 U	1.5
MANGANESE	3800 J-	2900 J-	3700 J-	7.5 J-	6700 J-	6600 J-	5000 J-	2200	2700	2400
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.8 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	3.3	73	36	2.9	94	77	24	58	53	84
SELENIUM	0.89 U	8.9	2.5 J	1.1 J	30	30	2 U	7.3	8.2	12
SILVER	0.053 U	0.053 U	0.053 U	0.053 U	0.68 J	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 J	0.2 U	0.2 U	0.36 J	0.25 J	0.2 U	0.22 J	0.2 U	0.2 U
VANADIUM	0.99 J	0.82 U	0.93 J	2.8 J	9.2	3.8 J	0.82 U	2.5 J	15	4.3 J

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MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	0.047 U	0.047 U	0.047 U	0.085 J	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
PERCHLORATE	0.082 U	0.082 U	0.082 U	0.082 U	1.5	1.6	0.082 U	0.17 J	0.082 U	0.082 U
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	8	240	530	NA	NA	NA	NA	NA	NA
AMMONIA	NA	0.56 J	2.8	0.56 J	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	74	120	29	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	2.4	8.3	7.4	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	1.2	0.014 U	0.75	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	0.037 J	0.014 U	0.014 U	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	270	330	360	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	530	930	1100	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	49 U	NA	NA	49 U	NA	NA	480	NA	NA	200
TPH (C10-C32)	1200	NA	NA	360 J	NA	NA	330 J	NA	NA	340 J
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-51D MSA-MW-51D-20180627	MSA-MW-51I MSA-MW-51I-062718 20180627	MSA-MW-51S MSA-MW-51S-20180627	MSA-MW-52D MSA-MW-52D-20180626	MSA-MW-52I MSA-MW-52I-062618 20180626	MSA-MW-52S MSA-MW-52S-20180626	MSA-MW-53I MSA-MW-53I-070218 20180702	MSA-MW-53S MSA-MW-53S-20180702	MSA-MW-54I MSA-MW-54I-052918 20180529	MSA-MW-54S MSA-MW-54S-20180529
VOLATILES (UG/L)										
1,1,1,2-TETRACHLOROETHANE	7 U	0.14 U	14 U	70 U	70 U	0.14 U	88 U	0.14 U	140 U	180 U
1,1,1-TRICHLOROETHANE	12 U	0.24 U	24 U	120 U	120 U	0.24 U	150 U	0.24 U	240 U	300 U
1,1,2,2-TETRACHLOROETHANE	6.5 U	0.13 U	13 U	65 U	65 U	0.13 U	81 U	0.13 U	130 U	160 U
1,1,2-TRICHLOROTRIFLUOROETHANE	21 U	0.41 U	41 U	210 U	210 U	0.41 U	260 U	0.41 U	410 U	510 U
1,1-DICHLOROETHANE	8.5 U	0.17 U	17 U	85 U	85 U	0.17 U	110 U	0.17 U	170 U	210 U
1,1-DICHLOROETHENE	9.5 U	0.19 U	19 U	95 U	95 U	0.19 U	120 UJ	0.19 UJ	190 U	240 U
1,1-DICHLOROPROPENE	7 U	0.14 U	14 U	70 U	70 U	0.14 U	88 U	0.14 U	140 U	180 U
1,2,3-TRICHLOROBENZENE	27 U	0.54 U	54 U	270 U	270 U	0.54 U	340 U	0.54 U	540 U	680 U
1,2,3-TRICHLOROPROPANE	12 U	0.24 U	24 U	120 U	120 U	0.24 U	150 U	0.24 U	240 U	300 U
1,2,3-TRIMETHYLBENZENE	7 U	0.14 U	14 U	70 U	70 U	1.1 J	88 U	0.14 U	140 U	180 U
1,2,4-TRICHLOROBENZENE	13 U	0.26 U	26 U	130 U	330 J	0.26 U	160 U	0.26 U	260 U	330 U
1,2,4-TRIMETHYLBENZENE	3.5 U	0.07 U	7 U	35 U	35 U	0.07 U	44 U	0.07 U	70 U	88 U
1,2-DIBROMO-3-CHLOROPROPANE	46 U	0.91 U	91 U	460 U	460 U	0.91 U	570 U	0.91 U	910 U	1100 U
1,2-DIBROMOETHANE	6 U	0.12 U	12 U	60 U	60 U	0.12 U	75 U	0.12 U	120 U	150 U
1,2-DICHLOROBENZENE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
1,2-DICHLOROETHANE	11 U	0.21 U	21 U	200 J	190 J	1.2	130 U	0.52 J	210 U	260 U
1,2-DICHLOROPROPANE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
1,3-DICHLOROBENZENE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
1,3-DICHLOROPROPANE	11 U	0.21 U	21 U	110 U	110 U	0.21 U	130 U	0.21 U	210 U	260 U
1,4-DICHLOROBENZENE	8 U	0.16 U	16 U	80 U	80 U	0.16 U	100 U	0.16 U	160 U	200 U
2,2-DICHLOROPROPANE	16 U	0.31 U	31 U	160 U	160 U	0.31 U	190 U	0.31 U	310 U	390 U
2-BUTANONE	58 U	1.2 U	120 U	580 U	580 U	1.2 U	730 U	1.2 U	1200 U	1500 U
2-CHLOROETHYL VINYL ETHER	13 UR	0.26 UR	26 UR	130 UR	130 UR	0.26 UR	160 UR	0.26 UR	260 UR	330 UR
2-CHLOROTOLUENE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
2-HEXANONE	27 U	0.54 UJ	54 UJ	270 UJ	270 UJ	0.54 U	340 U	0.54 U	540 U	680 U
4-CHLOROTOLUENE	4.5 U	0.09 U	9 U	45 U	45 U	0.09 U	56 U	0.09 U	90 U	110 U
4-ISOPROPYLTOLUENE	6.5 U	0.13 U	13 U	65 U	65 U	0.13 U	81 U	0.13 U	130 U	160 U
4-METHYL-2-PENTANONE	21 UJ	0.42 UJ	42 UJ	210 UJ	210 UJ	0.42 UJ	260 U	0.42 U	420 U	530 U
ACETONE	4200	5.4 UJ	540 UJ	2700 UJ	2700 UJ	5.4 U	3400 U	5.4 U	5400 U	6800 U
BENZENE	6.5 U	0.13 U	13 U	65 U	65 U	1.9	81 U	0.52 J	130 U	160 U
BROMOBENZENE	6 U	0.12 U	12 U	60 U	60 U	0.12 U	75 U	0.12 U	120 U	150 U
BROMOCHLOROMETHANE	7 U	0.14 U	14 U	70 U	70 U	0.14 U	88 U	0.14 U	140 U	180 U
BROMODICHLOROMETHANE	8.5 U	0.17 U	17 U	85 U	85 U	0.17 U	110 U	0.17 U	170 U	210 U
BROMOFORM	38 U	0.76 U	76 U	380 U	380 U	0.76 U	480 U	0.76 U	760 U	950 U
BROMOMETHANE	21 U	0.42 U	42 U	210 U	210 U	0.42 U	260 U	0.42 U	420 U	530 U
CARBON DISULFIDE	14 U	0.28 U	28 U	140 U	140 U	0.28 U	180 U	0.28 U	280 U	350 U
CARBON TETRACHLORIDE	13 U	0.26 U	26 U	130 U	130 U	0.26 U	160 U	0.26 U	5500	4300
CHLOROBENZENE	7 U	0.14 U	14 U	200 J	150 J	1.1	88 U	0.14 J	140 U	180 U
CHLORODIBROMOMETHANE	20 U	0.39 U	39 U	200 U	200 U	0.39 U	240 U	0.39 U	390 U	490 U
CHLORODIFLUOROMETHANE	50 UJ	1 UJ	100 UJ	500 UJ	500 UJ	1 UJ	630 UJ	1 UJ	1000 UJ	1300 UJ
CHLOROETHANE	42 U	0.83 U	83 U	420 U	420 U	0.83 U	520 U	0.83 U	830 U	1000 U
CHLOROFORM	6.5 U	0.13 U	13 U	89 J	75 J	0.13 U	81 U	0.13 U	1800	3200
CHLOROMETHANE	10 U	0.2 U	20 U	100 U	100 U	0.2 U	130 U	0.2 U	200 U	250 U
CIS-1,2-DICHLOROETHENE	8.6 J	44	3700	3900	7400	24	16000	4.5	4000	27000
CIS-1,3-DICHLOROPROPENE	31 UJ	0.61 UJ	61 UJ	310 UJ	310 UJ	0.61 UJ	380 UJ	0.61 UJ	610 U	760 U
DIBROMOMETHANE	4.5 U	0.09 U	9 U	45 U	45 U	0.09 U	56 U	0.09 U	90 U	110 U
DICHLORODIFLUOROMETHANE	18 U	0.35 U	35 U	180 UJ	180 UJ	0.35 UJ	220 UJ	0.35 UJ	350 U	440 U
DIISOPROPYL ETHER	8.5 U	0.17 U	17 U	85 U	85 U	0.18 J	110 U	0.17 U	170 U	210 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-51D MSA-MW-51D-20180627	MSA-MW-51I MSA-MW-51I-062718 20180627	MSA-MW-51S MSA-MW-51S-20180627	MSA-MW-52D MSA-MW-52D-20180626	MSA-MW-52I MSA-MW-52I-062618 20180626	MSA-MW-52S MSA-MW-52S-20180626	MSA-MW-53I MSA-MW-53I-070218 20180702	MSA-MW-53S MSA-MW-53S-20180702	MSA-MW-54I MSA-MW-54I-052918 20180529	MSA-MW-54S MSA-MW-54S-20180529
ETHYL TERT-BUTYL ETHER	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
ETHYLBENZENE	5.5 U	0.11 U	11 U	55 U	55 U	1.8	69 U	0.11 U	110 U	140 U
HEXACHLOROBUTADIENE	42 U	0.83 U	83 U	420 U	420 U	0.83 U	520 UJ	0.83 UJ	830 U	1000 U
ISOPROPYLBENZENE	4.5 U	0.09 U	9 U	45 U	45 U	0.33 J	56 U	0.09 U	90 U	110 U
M+P-XYLENES	4 U	0.08 U	8 U	40 U	40 U	0.71 J	50 U	0.08 U	80 U	170 J
METHYL TERT-BUTYL ETHER	3.5 U	0.07 U	7 U	35 U	35 U	0.07 U	44 U	0.07 U	70 U	88 U
METHYLENE CHLORIDE	130 U	2.6 U	260 U	1300 U	1300 U	2.6 U	1600 U	2.6 U	2600 U	3300 U
NAPHTHALENE	16 U	0.32 U	32 U	160 U	160 U	0.32 U	200 U	0.32 U	320 U	400 U
N-BUTYLBENZENE	7 U	0.14 U	14 U	70 U	70 U	0.14 U	88 UJ	0.14 UJ	140 U	180 U
N-PROPYLBENZENE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
O-XYLENE	4.5 U	0.09 U	9 U	45 U	45 U	0.36 J	56 U	0.09 U	90 U	110 U
SEC-BUTYLBENZENE	6.5 U	0.13 U	13 U	65 U	65 U	0.13 U	81 U	0.13 U	130 U	160 U
STYRENE	5 U	0.1 U	10 U	50 U	50 U	0.1 U	63 U	0.1 U	100 U	130 U
TERT-AMYL METHYL ETHER	5.5 U	0.11 U	11 U	55 U	55 U	0.11 U	69 U	0.11 U	110 U	140 U
TERT-BUTYLBENZENE	7 U	0.14 U	14 U	70 U	70 U	0.14 U	88 U	0.14 U	140 U	180 U
TERTIARY-BUTYL ALCOHOL	7100	1.7 UJ	170 UJ	850 UJ	1100 U	2100 J	1100 U	7 U	1700 U	2100 U
TETRACHLOROETHENE	7.5 U	0.15 U	15 U	75 U	75 U	0.15 U	94 U	0.15 U	150 U	190 U
TOLUENE	7 U	0.14 U	14 U	70 U	70 U	0.36 J	88 U	0.14 U	1700	18000
TOTAL XYLENES	7.5 U	0.15 U	15 U	75 U	75 U	1.1 J	94 U	0.15 U	150 U	190 U
TRANS-1,2-DICHLOROETHENE	9.5 U	1.6	19 J	95 U	95 U	4	120 U	0.19 U	190 U	240 U
TRANS-1,3-DICHLOROPROPENE	34 U	0.67 UJ	67 UJ	340 UJ	340 UJ	0.67 U	420 U	0.67 U	670 U	840 U
TRICHLOROETHENE	12 J	19	4300	17000	20000	0.81 J	5600	1.8	18000	37000
TRICHLOROFLUOROMETHANE	23 U	0.45 U	45 U	230 U	230 U	0.45 U	280 U	0.45 U	450 U	560 U
VINYL ACETATE	9.5 U	0.19 U	19 U	95 U	95 U	0.19 U	120 UJ	0.19 UJ	190 U	240 U
VINYL CHLORIDE	10 U	2.2	100	1900	2700	49	5000	8.7	240 J	2200
TENTATIVELY IDENTIFIED COMPOUNDS-VOLATILES (UG/L)										
1,3-OXATHIOLANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DIOXANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLATED HYDROXYTOLUENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,2-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,3-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE, 1,7-DIMETHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PENTANE, 2-METHYL-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILANOL, TRIMETHYL-	NA	2.7 R	NA	NA	NA	3 R	NA	NA	NA	NA
UNKNOWN	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOLATILE GASES (UG/L)										
ETHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETHENE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
METHANE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC VOLATILES (UG/L)										
BROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIBROMOACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TRICHLOROACETIC ACID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MSA-MW-51D	MSA-MW-51I	MSA-MW-51S	MSA-MW-52D	MSA-MW-52I	MSA-MW-52S	MSA-MW-53I	MSA-MW-53S	MSA-MW-54I	MSA-MW-54S
SAMPLE ID	MSA-MW-51D-20180627	MSA-MW-51I-062718 20180627	MSA-MW-51S-20180627	MSA-MW-52D-20180626	MSA-MW-52I-062618 20180626	MSA-MW-52S-20180626	MSA-MW-53I-070218 20180702	MSA-MW-53S-20180702	MSA-MW-54I-052918 20180529	MSA-MW-54S-20180529
SAMPLE DATE										
SEMIVOLATILES (UG/L)										
1,4-DIOXANE	0.92	1.5	25	310	390	84	240	94	82	510
TOTAL METALS (UG/L)										
ANTIMONY	0.66 J	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 UJ	0.57 U	0.57 U
ARSENIC	1.2 J	0.77 J	0.75 U	11	0.75 U	22	6.8	9.3	4.1 J	3.9 J
BARIUM	5.6	16	17	21	16	300	18	49 J	24	25
BERYLLIUM	0.5 J	2.1	0.84 J	3	2.1	0.31 U	3	0.31 U	0.88 J	1.8
CADMIUM	0.21 U	1.2	1.4	91	410	0.21 U	130	0.21 U	41	250
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	0.98 U	5.7	1.3 J	13	3.1	2	29	5.7	5	6
COBALT	1.9	79	28	170	320	1.8	200	13	170	88
COPPER	1.8 U	3.6 U	4.7 U	2.6	16	1.7 U	260	1.7 U	1.7 U	1.7 U
IRON	200	51000	7400	5400	13000	42000	17000	20000	5000	14000
LEAD	0.45 U	0.45 U	0.45 U	0.84 J	3.2	0.45 U	0.46 U	0.45 UJ	0.45 U	0.45 U
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	1400 J-	3900 J-	3600 J-	3800 J	6100 J	520 J	4200	430	3100	1800
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 J	1.1 U	2.2 J	1.1 U	1.1 U
NICKEL	1.9 J	30	23	73	100	1.5 U	160	12	150	84
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	0.89 U	14	6.2	8	7.7	1.6 J	12	0.89 U	5.1	5.2
SILICON DIOXIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	0.31 J	0.053 U	0.32 J	0.47 J	0.96 J	0.96 J	0.053 U	0.053 U	0.053 U	0.053 U
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	0.2 U	0.21 J	0.2 U	0.2 U	0.27 J	0.2 U	0.2 U	0.2 UJ	0.2 U	0.31 U
VANADIUM	0.82 U	4.4 J	0.82 U	4 J	14	2.5 J	49	0.82 U	0.82 U	1.3 J
DISSOLVED METALS (UG/L)										
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.3 J	0.75 U	0.75 U	9.7	0.75 U	17	6.6	1.3 J	4.3 J	3.8 J
BARIUM	5.5	16	19	20	16	290	26	44	25	25
BERYLLIUM	0.35 J	2	1.1	2.8	2.2	0.31 U	3	0.31 U	1.3	1.8
CADMIUM	0.21 U	1.1	1.6	72	240	0.21 U	120	0.21 U	40	250
CHROMIUM	0.98 U	5.8	1.3 J	12	2.8	1.7 J	29	1.7 J	5.2	5.9
COBALT	1.3	80	32	160	320	1.8	220	12	170	88
COPPER	1.7 U	2.6 U	6.6 U	4.6	2.9	1.7 U	100	2.6	1.7 U	6.4
IRON	170	52000	9100	5300	13000	38000	21000	9000	5000	15000
LEAD	0.45 U	0.45 U	0.45 U	0.62 J	1.7	0.45 U	0.47 U	0.45 U	0.45 U	0.45 U
MANGANESE	1500 J-	3900 J-	4100 J-	3700	6000	530	4100 J	380 J	3000	1900
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 J	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	1.5 J	31	27	70	100	1.5 U	180	11	140	84
SELENIUM	0.89 U	14	7.4	7.7	7.5	1.2 J	12	0.89 U	6	5.4
SILVER	0.092 J	0.053 U	0.053 U	0.053 U	0.14 J	0.089 J	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 J	0.2 U	0.2 U	0.24 J	0.2 U	0.2 U	0.2 U	0.27 U	0.29 U
VANADIUM	0.82 U	4.2 J	0.82 U	3 J	9.4	2.2 J	47	0.82 U	0.82 U	0.82 U

Table C-1

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Dump Road Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION SAMPLE ID SAMPLE DATE	MSA-MW-51D MSA-MW-51D-20180627	MSA-MW-51I MSA-MW-51I-062718 20180627	MSA-MW-51S MSA-MW-51S-20180627	MSA-MW-52D MSA-MW-52D-20180626	MSA-MW-52I MSA-MW-52I-062618 20180626	MSA-MW-52S MSA-MW-52S-20180626	MSA-MW-53I MSA-MW-53I-070218 20180702	MSA-MW-53S MSA-MW-53S-20180702	MSA-MW-54I MSA-MW-54I-052918 20180529	MSA-MW-54S MSA-MW-54S-20180529
MISCELLANEOUS PARAMETERS (UG/L)										
HEXAVALENT CHROMIUM	2.8	0.2 J	0.12 J	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
PERCHLORATE	0.16 J	0.082 U	0.27 J	0.082 U	0.082 U	0.082 U	0.34 J	0.082 U	0.12 J	0.082 U
MISCELLANEOUS PARAMETERS (MG/L)										
ALKALINITY	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMMONIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLORIDE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED ORGANIC CARBON	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRATE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NITRITE-N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PHOSPHATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFATE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL DISSOLVED SOLIDS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/L)										
TPH (C06-C10)	NA	NA	49 U	NA	NA	73 J	NA	78 J	NA	94000
TPH (C10-C32)	NA	NA	440 J	NA	NA	5100	NA	520	NA	3200
RADIONUCLIDES (PCI/L)										
RADIUM-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL ALPHA RADIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
DRO - diesel-range organics
GRO - gasoline-range organics
J - estimated concentration
J+ - estimated concentration, biased high
J - - estimated concentration, biased low
NA - not analyzed.
NJ - tentatively identified compound
TPH - total petroleum hydrocarbons
U - analyte is not detected at the concentration shown left of the letter.
Pci/L - picocurie per liter
UG/L - micrograms per liter (i.e., parts per billion)
UJ - analyte is not detected and estimated at the concentration shown left of the letter.
UR - not detected. Result is not considered reliable.

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S
SAMPLE ID	MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918
SAMPLE DATE	20180510	20180510	20180507	20180509
MATRIX	GW	GW	GW	GW
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.46 U	0.46 U	0.46 U	0.46 U
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 UJ	0.41 U
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U
1,1-DICHLOROPROPENE	0.28 U	0.28 U	0.28 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.35 UJ	0.35 UJ	0.35 U	0.35 UJ
1,2,3-TRICHLOROPROPANE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRIMETHYLBENZENE	0.22 UJ	3.6 J	0.22 U	0.22 UJ
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	0.24 U	4.1	0.24 U	0.24 U
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
1,3-DICHLOROPROPANE	0.29 U	0.29 U	0.29 U	0.29 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U
2,2-DICHLOROPROPANE	0.34 U	0.34 U	0.34 U	0.34 U
2-BUTANONE	1 U	1 U	1 U	1 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S
SAMPLE ID	MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918
SAMPLE DATE	20180510	20180510	20180507	20180509
MATRIX	GW	GW	GW	GW
2-CHLOROETHYL VINYL ETHER	0.65 UR	0.65 UR	0.65 UR	0.65 UR
2-CHLOROTOLUENE	0.28 U	0.28 U	0.28 U	0.28 U
2-HEXANONE	1.2 U	1.2 U	1.2 UJ	1.2 U
4-CHLOROTOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
4-ISOPROPYLTOLUENE	0.29 U	0.52 J	0.29 U	0.29 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	1.8 U	14 U	1.8 U	1.8 U
BENZENE	0.28 U	17	0.28 U	0.28 U
BROMOBENZENE	0.31 U	0.31 U	0.31 U	0.31 U
BROMOCHLOROMETHANE	0.47 U	0.47 U	0.47 U	0.47 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.32 J
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	2.3	0.3 U	0.3 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S
SAMPLE ID	MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918
SAMPLE DATE	20180510	20180510	20180507	20180509
MATRIX	GW	GW	GW	GW
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U
DIBROMOMETHANE	0.46 U	0.46 U	0.46 U	0.46 U
DICHLORODIFLUOROMETHANE	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
DIISOPROPYL ETHER	0.44 U	1.2 J	0.44 U	0.44 U
ETHYL TERT-BUTYL ETHER	0.35 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	0.26 U	7.5	0.26 U	0.26 U
HEXACHLOROBUTADIENE	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ
ISOPROPYLBENZENE	0.21 U	9.2	0.21 U	0.21 U
M+P-XYLENES	0.24 U	22	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U
NAPHTHALENE	0.25 U	0.75 J	0.25 U	0.25 U
N-BUTYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.45 U	2.1	0.45 U	0.45 U
O-XYLENE	0.28 U	13	0.28 U	0.28 U
SEC-BUTYLBENZENE	0.27 U	0.34 J	0.27 U	0.27 U
STYRENE	0.23 U	0.4 J	0.23 U	0.23 U
TERT-AMYL METHYL ETHER	0.29 U	0.29 U	0.29 U	0.29 U
TERT-BUTYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	4.6 U	75	4.6 U	4.6 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	35	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	0.33 U	0.33 U	0.33 U	0.33 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S
SAMPLE ID	MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918
SAMPLE DATE	20180510	20180510	20180507	20180509
MATRIX	GW	GW	GW	GW
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
VINYL ACETATE	0.28 U	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	0.45 UJ	0.45 UJ	0.45 U	0.45 UJ
SEMIVOLATILES (UG/L)				
1,4-DIOXANE	0.25 UJ	0.23 UJ	0.25 UJ	0.25 UJ
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.1 J	3.3 J	0.75 U	0.75 U
BARIUM	58	86	13	54
BERYLLIUM	1.1	2	2.2	4.7
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	1.1 J	0.98 U	0.98 U	0.98 U
COBALT	71	56	11	230
COPPER	7	1.7 U	4.3	86
IRON	13000	110000	320	47 U
LEAD	0.45 U	0.45 U	0.45 U	0.55 J
MANGANESE	960	940	80	230
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.3 J	1.1 U	1.1 U	1.1 U
NICKEL	44	40	24	380
SELENIUM	0.89 U	1.1 J	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	4.9 J	0.82 U	0.82 U	0.82 U
METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	1.7 J	3.2 J	0.75 U	0.75 U
BARIUM	110	84	12	54

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW01S	MT-MW02S	MT-MW03S	MT-MW04S
SAMPLE ID	MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718	MT-MW04S-050918
SAMPLE DATE	20180510	20180510	20180507	20180509
MATRIX	GW	GW	GW	GW
BERYLLIUM	3.1	2.7	2.4	4.7
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	1.3 J	0.98 U
COBALT	170	58	10	240
COPPER	1.7 U	3.5	3	83
IRON	36000	110000	2100	47 U
LEAD	0.45 U	0.45 U	0.45 U	0.6 J
MANGANESE	2300	830	77	240
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	97	48	23	380
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.2 U	0.2 U	0.2 U
VANADIUM	0.93 J	0.82 J	0.82 U	0.82 U
PETROLEUM HYDROCARBONS (UG/L)				
TPH (C06-C10)	49 U	430	49 U	50 J
TPH (C10-C32)	1700	7000	220 U	220 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S
SAMPLE ID	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718
SAMPLE DATE	20180508	20180508	20180507	20180507
MATRIX	GW	GW	GW	GW
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.46 U	0.46 U	0.46 U	0.46 U
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 UJ	0.41 UJ	0.41 UJ	0.41 UJ
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U
1,1-DICHLOROPROPENE	0.28 U	0.28 U	0.28 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-TRICHLOROPROPANE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRIMETHYLBENZENE	0.22 U	0.22 U	0.22 U	0.22 U
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
1,3-DICHLOROPROPANE	0.29 U	0.29 U	0.29 U	0.29 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U
2,2-DICHLOROPROPANE	0.34 U	0.34 U	0.34 U	0.34 U
2-BUTANONE	1 U	1 U	1 U	1 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S
SAMPLE ID	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718
SAMPLE DATE	20180508	20180508	20180507	20180507
MATRIX	GW	GW	GW	GW
2-CHLOROETHYL VINYL ETHER	0.65 UR	0.65 UR	0.65 UR	0.65 UR
2-CHLOROTOLUENE	0.28 U	0.28 U	0.28 U	0.28 U
2-HEXANONE	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ
4-CHLOROTOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
4-ISOPROPYLTOLUENE	0.29 U	0.29 U	0.29 U	0.29 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	0.28 U	0.28 U	0.28 U	0.28 U
BROMOBENZENE	0.31 U	0.31 U	0.31 U	0.31 U
BROMOCHLOROMETHANE	0.47 U	0.47 U	0.47 U	0.47 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	0.31 U	0.31 U	0.31 U	0.31 U
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U

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Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S
SAMPLE ID	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718
SAMPLE DATE	20180508	20180508	20180507	20180507
MATRIX	GW	GW	GW	GW
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U
DIBROMOMETHANE	0.46 U	0.46 U	0.46 U	0.46 U
DICHLORODIFLUOROMETHANE	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
DIISOPROPYL ETHER	0.44 U	0.44 U	0.44 U	0.44 U
ETHYL TERT-BUTYL ETHER	0.35 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
HEXACHLOROBUTADIENE	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U
NAPHTHALENE	0.25 U	0.25 U	0.25 U	0.25 U
N-BUTYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.45 U	0.45 U	0.45 U	0.45 U
O-XYLENE	0.28 U	0.28 U	0.28 U	0.28 U
SEC-BUTYLBENZENE	0.27 U	0.27 U	0.27 U	0.27 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U
TERT-AMYL METHYL ETHER	0.29 U	0.29 U	0.29 U	0.29 U
TERT-BUTYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	4.6 U	4.6 U	4.6 U	4.6 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	0.54 J	0.33 U	0.33 U	0.33 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S
SAMPLE ID	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718
SAMPLE DATE	20180508	20180508	20180507	20180507
MATRIX	GW	GW	GW	GW
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
VINYL ACETATE	0.28 U	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	0.45 U	0.45 U	0.45 U	0.45 U
SEMIVOLATILES (UG/L)				
1,4-DIOXANE	0.24 UJ	0.25 UJ	0.25 UJ	0.26 UJ
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.75 U
BARIUM	16	230	12	12
BERYLLIUM	46	94	0.72 J	0.53 J
CADMIUM	0.92 J	5.8	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U
COBALT	450	1200	9.8	6.7
COPPER	38	13	1.8 J	2.8
IRON	160	47 U	790	160
LEAD	0.96 J	0.45 U	0.45 U	0.45 U
MANGANESE	6500	21000	56	25
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.1 U
NICKEL	920	2700	12	11
SELENIUM	1.5 J	5.2	0.89 U	0.89 U
SILVER	0.053 U	0.061 J	0.053 U	0.053 U
THALLIUM	0.46 J	0.47 J	0.2 U	0.2 U
VANADIUM	0.82 U	0.82 U	1.5 J	0.82 U
METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.75 U
BARIUM	16	250	11	13

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW05S	MT-MW06S	MT-MW07S	MT-MW08S
SAMPLE ID	MT-MW05S-050818	MT-MW06S-050818	MT-MW07S-050718	MT-MW08S-050718
SAMPLE DATE	20180508	20180508	20180507	20180507
MATRIX	GW	GW	GW	GW
BERYLLIUM	45	110	0.71 J	0.69 J
CADMIUM	0.97 J	6.2	0.21 U	0.21 U
CHROMIUM	0.98 U	1.1 J	0.98 U	0.98 U
COBALT	440	1400	9.1	7.2
COPPER	29	53	1.7 U	1.7 U
IRON	180	360	640	730
LEAD	0.92 J	1.6	0.45 U	0.45 U
MANGANESE	6400	23000	51	26
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.2 J	1.1 U	1.1 U
NICKEL	900	3200	10	11
SELENIUM	0.89 U	7.3	0.89 U	0.89 U
SILVER	0.053 U	0.37 J	0.053 U	0.053 U
THALLIUM	0.51 J	0.44 J	0.2 U	0.2 U
VANADIUM	0.82 U	0.82 U	1.3 J	1.7 J
PETROLEUM HYDROCARBONS (UG/L)				
TPH (C06-C10)	49 U	49 U	49 U	51 J
TPH (C10-C32)	230 U	230 U	220 U	230 J

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE	20180510	20180509	20180509	20180508
MATRIX	GW	GW	GW	GW
VOLATILES (UG/L)				
1,1,1,2-TETRACHLOROETHANE	0.46 U	0.46 U	0.46 U	0.46 U
1,1,1-TRICHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-TETRACHLOROETHANE	0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41 U	0.41 U	0.41 U	0.41 UJ
1,1-DICHLOROETHANE	0.25 U	0.25 U	0.25 U	0.25 U
1,1-DICHLOROETHENE	0.27 U	0.27 U	0.27 U	0.27 U
1,1-DICHLOROPROPENE	0.28 U	0.28 U	0.28 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.35 UJ	0.35 UJ	0.35 UJ	0.35 U
1,2,3-TRICHLOROPROPANE	0.54 U	0.54 U	0.54 U	0.54 U
1,2,3-TRIMETHYLBENZENE	0.22 UJ	0.22 UJ	0.22 UJ	0.22 U
1,2,4-TRICHLOROBENZENE	0.27 U	0.27 U	0.27 U	0.27 U
1,2,4-TRIMETHYLBENZENE	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DIBROMO-3-CHLOROPROPANE	0.47 U	0.47 U	0.47 U	0.47 U
1,2-DIBROMOETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,2-DICHLOROBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.3 U	0.3 U
1,2-DICHLOROPROPANE	0.3 U	0.3 U	0.3 U	0.3 U
1,3-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
1,3-DICHLOROPROPANE	0.29 U	0.29 U	0.29 U	0.29 U
1,4-DICHLOROBENZENE	0.23 U	0.23 U	0.23 U	0.23 U
2,2-DICHLOROPROPANE	0.34 U	0.34 U	0.34 U	0.34 U
2-BUTANONE	1 U	1 U	1 U	1 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE	20180510	20180509	20180509	20180508
MATRIX	GW	GW	GW	GW
2-CHLOROETHYL VINYL ETHER	0.65 UR	0.65 UR	0.65 UR	0.65 UR
2-CHLOROTOLUENE	0.28 U	0.28 U	0.28 U	0.28 U
2-HEXANONE	1.2 U	1.2 U	1.2 U	1.2 U
4-CHLOROTOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
4-ISOPROPYLTOLUENE	0.29 U	0.29 U	0.29 U	0.29 U
4-METHYL-2-PENTANONE	0.71 U	0.71 U	0.71 U	0.71 U
ACETONE	1.8 U	1.8 U	1.8 U	1.8 U
BENZENE	0.28 U	0.65 J	0.28 U	0.28 U
BROMOBENZENE	0.31 U	0.31 U	0.31 U	0.31 U
BROMOCHLOROMETHANE	0.47 U	0.47 U	0.47 U	0.47 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U
BROMOFORM	0.43 U	0.43 U	0.43 U	0.43 U
BROMOMETHANE	0.42 U	0.42 U	0.42 U	0.42 U
CARBON DISULFIDE	0.34 U	0.34 U	0.34 U	0.34 U
CARBON TETRACHLORIDE	0.35 U	0.35 U	0.35 U	0.35 U
CHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.25 U	0.25 U	0.25 U	0.25 U
CHLORODIFLUOROMETHANE	1 U	1 U	1 U	1 U
CHLOROETHANE	0.41 U	0.41 U	0.41 U	0.41 U
CHLOROFORM	0.31 U	0.31 U	0.31 U	1.8
CHLOROMETHANE	0.43 U	0.43 U	0.43 U	0.43 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE	20180510	20180509	20180509	20180508
MATRIX	GW	GW	GW	GW
CIS-1,3-DICHLOROPROPENE	0.26 U	0.26 U	0.26 U	0.26 U
DIBROMOMETHANE	0.46 U	0.46 U	0.46 U	0.46 U
DICHLORODIFLUOROMETHANE	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
DIISOPROPYL ETHER	0.44 U	0.44 U	0.44 U	0.44 U
ETHYL TERT-BUTYL ETHER	0.35 U	0.35 U	0.35 U	0.35 U
ETHYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
HEXACHLOROBUTADIENE	0.36 UJ	0.36 UJ	0.36 UJ	0.36 UJ
ISOPROPYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.27 U	0.27 U	0.27 U	0.27 U
METHYLENE CHLORIDE	0.53 U	0.53 U	0.53 U	0.53 U
NAPHTHALENE	0.25 U	0.25 U	0.25 U	0.25 U
N-BUTYLBENZENE	0.21 U	0.21 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.45 U	0.45 U	0.45 U	0.45 U
O-XYLENE	0.28 U	0.28 U	0.28 U	0.28 U
SEC-BUTYLBENZENE	0.27 U	0.27 U	0.27 U	0.27 U
STYRENE	0.23 U	0.23 U	0.23 U	0.23 U
TERT-AMYL METHYL ETHER	0.29 U	0.29 U	0.29 U	0.29 U
TERT-BUTYLBENZENE	0.26 U	0.26 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	4.6 U	4.6 U	4.6 U	4.6 U
TETRACHLOROETHENE	0.3 U	0.3 U	0.3 U	0.3 U
TOLUENE	0.23 U	0.23 U	0.23 U	0.23 U
TOTAL XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
TRANS-1,2-DICHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.31 U	0.31 U	0.31 U
TRICHLOROETHENE	0.33 U	0.33 U	0.33 U	0.33 U

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE	20180510	20180509	20180509	20180508
MATRIX	GW	GW	GW	GW
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U
VINYL ACETATE	0.28 U	0.28 U	0.28 U	0.28 U
VINYL CHLORIDE	0.45 UJ	0.45 UJ	0.45 UJ	0.45 U
SEMIVOLATILES (UG/L)				
1,4-DIOXANE	0.25 UJ	0.24 UJ	0.23 UJ	0.24 UJ
DISSOLVED METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.75 U
BARIUM	45	70	78	110
BERYLLIUM	5.9	19	0.78 J	4.2
CADMIUM	0.21 U	0.21 U	0.21 U	0.21 U
CHROMIUM	0.98 U	0.98 U	0.98 U	0.98 U
COBALT	13	320	330	890
COPPER	1.7 U	1.9 J	1.7 U	1.7 U
IRON	47 U	930	2300	30000
LEAD	0.45 U	0.45 U	0.45 U	0.45 U
MANGANESE	310	720	2900	10000
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	1.9 J
NICKEL	17	500	540	1600
SELENIUM	0.89 U	0.89 U	0.89 U	0.89 U
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.34 J	0.42 J	0.2 U
VANADIUM	0.82 U	0.82 U	0.82 U	0.82 U
METALS (UG/L)				
ANTIMONY	0.57 U	0.57 U	0.57 U	0.57 U
ARSENIC	0.75 U	0.75 U	0.75 U	0.75 U
BARIUM	44	73	78	120

Table C-2

Detected and Non-Detected Analytes for Groundwater Samples - 2018
Main Terminal Area
Lockheed Martin, Martin State Airport, Middle River, Maryland

LOCATION	MT-MW09S	MT-MW10S	MT-MW11S	MT-MW12S
SAMPLE ID	MT-MW09S-051018	MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818
SAMPLE DATE	20180510	20180509	20180509	20180508
MATRIX	GW	GW	GW	GW
BERYLLIUM	5.9	19	1.1	14
CADMIUM	0.21 U	0.21 U	0.21 U	0.42 J
CHROMIUM	0.98 U	0.98 U	0.98 U	1.5 J
COBALT	13	330	320	930
COPPER	1.7 U	1.7 U	1.7 U	21
IRON	47 J	1900	3400	36000
LEAD	0.45 U	0.45 U	0.45 U	0.7 J
MANGANESE	300	730	2800	11000
MERCURY	0.13 U	0.13 U	0.13 U	0.13 U
MOLYBDENUM	1.1 U	1.1 U	1.1 U	2.3 J
NICKEL	17	520	520	1700
SELENIUM	0.89 U	0.89 U	0.89 U	1.8 J
SILVER	0.053 U	0.053 U	0.053 U	0.053 U
THALLIUM	0.2 U	0.34 J	0.44 J	0.23 J
VANADIUM	0.82 U	0.82 U	0.82 U	0.82 U
PETROLEUM HYDROCARBONS (UG/L)				
TPH (C06-C10)	56 J	49 U	49 U	49 U
TPH (C10-C32)	320 J	220 U	220 U	490 J

Notes:
DRO - diesel-range organics
GRO - gasoline-range organics
J - estimated concentration
NA - not analyzed.
NJ - tentatively identified compound
TPH - total petroleum hydrocarbons
U - analyte is not detected at the concentration shown left of the letter.
UG/L - micrograms per liter (i.e., parts per billion)
UJ - analyte is not detected and estimated at the concentration shown left of the letter.
UR - not detected. Result is not considered reliable.

APPENDIX D—DATA-VALIDATION REPORTS WITH CHAIN-OF-CUSTODY FORMS

TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 18, 2018**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / SVOC / GRO / DRO/ SELECT TOTAL AND DISSOLVED METALS**
MSA – GROUNDWATER / SURFACE WATER MONITORING – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-95314-1

SAMPLES: 15 / Aqueous /
VOC, SVOC, GRO, DRO, Select Total and Dissolved Metals

MSA-MW-35S-051418	MSA-MW-36S-051418	MSA-MW-37S-051418
MT-MW01S-051018	MT-MW02S-051018	MT-MW03S-050718
MT-MW04S-050918	MT-MW05S-050818	MT-MW06S-050818
MT-MW07S-050718	MT-MW08S-050718	MT-MW09S-051018
MT-MW10S-050918	MT-MW11S-050918	MT-MW12S-050818

3/Trip Blanks/
VOC

TB-050718	TB-050918	TB-051418

OVERVIEW

The sample set for MSA Groundwater/Surface Water Monitoring, SDG 240-95314-1, consists of fifteen (15) aqueous environmental samples and three (3) trip blanks. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), gas range organics (C6-C10), diesel range organics (C10-C32) and select total and dissolved metals. The trip blanks were analyzed for VOCs. Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on May 7, 8, 9 and 10, 2018, and analyzed by Test America. Analyses were conducted in accordance to SW-846 Methods 8260C, 8270D, 8015C, 6020A and 7470A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip/instrument blank results, ICP interference recoveries, surrogate spike recoveries, laboratory control sample/laboratory control sample duplicate results, internal standard recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC initial calibration, associated with preparation batches 240-95494 and 240-95580, performed on 05/08/18 on instrument A3UX16 had a percent relative standard deviation (%RSD) that was greater than the 20% quality control limit for dichlorodifluoromethane. Samples MSA-MW-35S-051418, MSA-MW-36S-051418, MSA-MW-37S-051418, MT-MW01S-051018, MT-MW02S-051018, MT-MW04S-050918, MT-MW09S-051018, MT-MW10S-050918, MT-MW11S-050918, TB-050918 and TB-051418 were affected. The non-detected results for dichlorodifluoromethane were qualified as estimated (UJ) in the affected samples.

- The VOC initial calibration verification, associated with preparation batches 240-95494 and 240-95580, performed on 05/08/18 @ 23:22 on instrument A3UX16 had percent differences (%Ds) that were greater than the 20% quality control limit for hexachlorobutadiene. Samples MSA-MW-35S-051418, MSA-MW-36S-051418, MSA-MW-37S-051418, MT-MW01S-051018, MT-MW02S-051018, MT-MW04S-050918, MT-MW09S-051018, MT-MW10S-050918, MT-MW11S-050918, TB-050918and TB-051418 were affected. The non-detected results for hexachlorobutadiene were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration verification, associated with preparation batch 240-95494, performed on 05/22/18 @ 8:40 and 9:39 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane, vinyl chloride, hexachlorobutadiene, 1,2,3-trichlorobenzene and 1,2,3-trimethylbenzene. Samples MT-MW01S-051018, MT-MW02S-051018, MT-MW04S-050918, MT-MW09S-051018, MT-MW10S-050918, MT-MW11S-050918 and TB-050918 were affected. The detected and non-detected results for the aforementioned compounds were qualified as estimated (J) and (UJ), respectively, in the affected samples.

- The VOC continuing calibration verification, associated with preparation batch 240-95580, performed on 05/24/18 @ 8:45 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for vinyl chloride, bromomethane, 1,1,2-trichlorotrifluoroethane, 2,2-dichloropropane, bromochloromethane, hexachlorobutadiene and 1,2,3-trichlorobenzene. Samples MSA-MW-35S-051418, MSA-MW-36S-051418, MSA-MW-37S-051418 and TB-051418 were affected. The detected and non-detected results for the aforementioned compounds were qualified as estimated (J) and (UJ), respectively, in the affected samples.

- The VOC initial calibration verification, associated with preparation batch 240-95314, performed on 05/16/18 @ 21:27 on instrument A3UX9 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane and 1,1,2-trichlorotrifluoroethane. Samples TB-050718, MT-MW07S-050718, MT-MW08S-050718, MT-MW03S-050718, MT-MW12S-050818, MT-MW05S-050818 and MT-MW06S-050818 were affected. The detected and non-detected results for the aforementioned compounds were qualified as estimated (J) and (UJ), respectively, in the affected samples.

- The VOC continuing calibration verification, associated with preparation batch 240-95314, performed on 05/18/18 @ 17:08 on instrument A3UX9 had %Ds that were greater than the 20% quality control limit for 2-hexanone and hexachlorobutadiene. Samples TB-050718, MT-MW07S-050718, MT-MW08S-050718, MT-MW03S-050718, MT-MW12S-050818, MT-MW05S-050818 and MT-MW06S-050818 were affected. The non-detected results for the aforementioned compounds were qualified as estimated (UJ), in the affected samples.

- The SVOC initial calibration verification, associated with preparation batches 240-95314, 240-95494-2 and 240-95580, performed on 05/11/18 @ 14:56 on instrument A4AG2 had %Ds that were greater than the 20% quality control limit for 1,4-dioxane. All samples were affected. The detected and non-detected

results for 1,4-dioxane were qualified as estimated (J) and (UJ), respectively, in the affected samples.

- The following VOC analytes were detected in the method/trip blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Acetone[1]	11 ug/L	> RL
Acetone[2]	11 ug/L	> RL
Acetone[3]	10 ug/L	> RL
2-butanone[3]	1.1 ug/L	< RL
Methylene chloride[4]	0.912 ug/L	< RL

[1] Maximum concentration detected in trip blank TB-050718.
[2] Maximum concentration detected in trip blank TB-050918.
[3] Maximum concentration present in trip blank TB-051418.
[4] Maximum concentration present in a method blank affecting sample MSA-MW-35S-051418.

The detected result greater than 2X the blank result for acetone for sample MT-MW02S-051018 was qualified as non-detected, (U). Field blanks are not qualified for field blank contamination.

- The TICs cyclohexane, 2-methyl-3-hexanone, 2,2-dimethyl-3-pentanol, 3-methyl-3-pentanol, 2,2-dimethyl-3-pentanone, 1,2,4,5-tetramethyl-benzene, 1,3,5-trimethyl-benzene, 1-ethyl-2-methyl-benzene, cyclopropyl-benzene and 2-ethyl-butanal were detected in sample MT-MW02S-051018. The GC/MS instrument was not calibrated for this TIC; therefore, the detected compound was qualified as estimated (NJ) and assumed to be presumptively present.

- The TIC butylated hydroxytoluene was detected in sample MSA-MW-35S-051418. The GC/MS instrument was not calibrated for this TIC; therefore, the detected compound was qualified as estimated (NJ) and assumed to be presumptively present.

- The following contaminant was detected in a laboratory instrument blank at the following maximum concentration:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Total beryllium[1]	0.317 ug/L	< RL

[1] Maximum concentration present affecting samples MSA-MW-36S-051418, MSA-MW-37S-051418 and MSA-MW-35S-051418.

The detected results reported below the reporting limit (RL) for beryllium were qualified as non-detected, (U).

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

It was noted that in the original data package the DRO analytical sequences were missing for 05/06/2018 and 05/18/2018. The laboratory was contacted and the missing forms were submitted.

Nondetects were reported to the MDL.

Sample MT-MW12S-050818 was analyzed at a 2X dilution and sample MT-MW06S-050818 was analyzed

at a 5X dilution for total and dissolved manganese.

A TIC search was performed for the compound chlorodifluoromethane.

The VOC laboratory control sample (LCS) associated with preparation batch 240-327925 had percent recoveries above the quality control limits for cis-1,3-dichloropropene and vinyl chloride. Samples TB-050918, MT-MW11S-050918, MT-MW04S-050918, MT-MW10S-050918, MT-MW02S-051019, MT-MW01S-051018 and MT-MW09S-051018 were affected. No validation actions were required as all sample results for the aforementioned compounds were nondetects.

It was noted that the VOC LCS was not analyzed for the following compounds: 1,2,3-trimethylbenzene, 1,2-dibromoethane, diisopropyl ether, ethyl tert-butyl ether and tert-amyl methyl ether. LCS recoveries could not be evaluated.

The following TICs were detected in the method blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Unknown(1)	10.5 ug/L	< RL
Unknown(1)	9.55 ug/L	< RL
Unknown(2)	12.5 ug/L	< RL
Unknown(2)	10.2 ug/L	< RL
Unknown(3)	9.47 ug/L	< RL
Unknown(4)	8.99 ug/L	< RL

(1) Maximum concentration detected in method blank 240-327569.
(2) Maximum concentration detected in method blank 240-327925.
(3) Maximum concentration present in method blank 240-328313.
(4) Maximum concentration present in method blank 240-328532.

No validation actions were required as the TIC unknown was not present in any samples.

The SVOC surrogate recovery for terphenyl-d14 was above the quality control limits for sample MT-MW05S-050818. No validation actions were required as all sample result were nondetects.

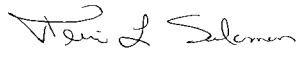
The GRO matrix spike / matrix spike duplicate percent recoveries (%Rs) were greater than the quality control limits for sample MT-MW06S-050818. No validation actions were required as the sample result was nondetected.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several initial and continuing calibration %Ds were noncompliant for the VOC and SVOC fractions. Contaminants were detected in the laboratory trip/method/preparation blanks.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Several TICs were detected in the VOC fraction. Detected results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Organic Superfund Methods Data Review” (January 2017) and the “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Terri Solomon
Environmental Scientist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-35S-051418-RE			MSA-MW-36S-051418			MSA-MW-37S-051418		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-4			240-95580-2			240-95580-3		
FRACTION: OV	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U					0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U					0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U					0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C				0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.36	J	P				0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U					0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U					0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	UJ	C				0.35	UJ	C	0.35	UJ	C
1,2,3-TRICHLOROPROPANE		0.54	U					0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	U					0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U					0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U					0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U					0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U					0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U					0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.33	J	P				0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U					0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U					0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U					0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U					0.23	U		0.23	U	
2,2-DICHLOROPROPANE					1.5	J	C	0.34	UJ	C	0.34	UJ	C
2-BUTANONE		1	U					1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M				0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U					0.28	U		0.28	U	
2-HEXANONE		1.2	U					1.2	U		1.2	U	
4-CHLOROTOLUENE		0.23	U					0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U					0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U					0.71	U		0.71	U	
ACETONE		1.8	U					1.8	U		1.8	U	
BENZENE		0.28	U					0.28	U		0.28	U	
BROMOBENZENE		0.31	U					0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	UJ	C				0.47	UJ	C	0.47	UJ	C
BROMODICHLOROMETHANE		0.3	U					0.3	U		0.3	U	
BROMOFORM		0.43	U					0.43	U		0.43	U	
BROMOMETHANE		0.42	UJ	C				0.42	UJ	C	0.42	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW01S-051018			MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918		
SDG: 240-95314-1	LAB_ID	240-95494-6			240-95494-5			240-95314-4			240-95494-3		
FRACTION: OV	SAMP_DATE	5/10/2018			5/10/2018			5/7/2018			5/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	UJ	C	0.41	U	
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	UJ	C	0.35	UJ	C	0.35	U		0.35	UJ	C
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	UJ	C	3.6	J	CP	0.22	U		0.22	UJ	C
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		4.1			0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	U		0.34	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	U		1.2	U		1.2	UJ	C	1.2	U	
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.52	J	P	0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		14	U	A	1.8	U		1.8	U	
BENZENE		0.28	U		17			0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MT-MW05S-050818			MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718		
SDG: 240-95314-1	LAB_ID	240-95314-6			240-95314-7			240-95314-2			240-95314-3		
FRACTION: OV	SAMP_DATE	5/8/2018			5/8/2018			5/7/2018			5/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	U		0.34	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	UJ	C	1.2	UJ	C	1.2	UJ	C	1.2	UJ	C
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MT-MW09S-051018			MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-7			240-95494-4			240-95494-2			240-95314-5		
FRACTION: OV	SAMP_DATE	5/10/2018			5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	U	
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	UJ	C	0.22	UJ	C	0.22	UJ	C	0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	U		0.34	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	UJ	
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		1.8	U		1.8	U		1.8	U	
BENZENE		0.28	U		0.65	J	P	0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	TB-050718			TB-050918			TB-051418		
SDG: 240-95314-1	LAB_ID	240-95314-1			240-95494-1			240-95580-1		
FRACTION: OV	SAMP_DATE	5/7/2018			5/9/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			TB			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	U		0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	UJ	C	0.35	UJ	C
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	U		0.22	UJ	C	0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	UJ	C
2-BUTANONE		1	U		1	U		1.1	J	P
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	UJ	C	1.2	U		1.2	U	
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U	
ACETONE		11			11			10		
BENZENE		0.28	U		0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	UJ	C
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	UJ	C

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-35S-051418-RE			MSA-MW-36S-051418			MSA-MW-37S-051418		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-4			240-95580-2			240-95580-3		
FRACTION: OV	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BUTYLATED HYDROXYTOLUENE					2.1	NJ	PZ1						
CARBON DISULFIDE		0.34	U					0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U					0.35	U		0.35	U	
CHLOROBENZENE		0.32	U					0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U					0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	U					1	U		1	U	
CHLOROETHANE		0.41	U					0.41	U		0.41	U	
CHLOROFORM		0.31	U					0.31	U		0.31	U	
CHLOROMETHANE		0.43	U					0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		9.7						0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U					0.26	U		0.26	U	
CYCLOHEXANE													
DIBROMOMETHANE		0.46	U					0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C				0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U					0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U					0.35	U		0.35	U	
ETHYLBENZENE		0.26	U					0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	UJ	C				0.36	UJ	C	0.36	UJ	C
ISOPROPYLBENZENE		0.21	U					0.21	U		0.21	U	
M+P-XYLENES		0.24	U					0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U					0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U					0.53	U		0.53	U	
NAPHTHALENE		0.25	U					0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U					0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U					0.45	U		0.45	U	
O-XYLENE		0.28	U					0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U					0.27	U		0.27	U	
STYRENE		0.23	U					0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U					0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U					0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	U					4.6	U		4.6	U	
TETRACHLOROETHENE		0.3	U					0.3	U		0.3	U	
TOLUENE		0.23	U					0.23	U		0.23	U	
TOTAL XYLENES		0.24	U					0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U					0.29	U		0.29	U	

PROJ_NO: 08424	NSAMPLE	MT-MW01S-051018			MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918		
SDG: 240-95314-1	LAB_ID	240-95494-6			240-95494-5			240-95314-4			240-95494-3		
FRACTION: OV	SAMP_DATE	5/10/2018			5/10/2018			5/7/2018			5/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BUTYLATED HYDROXYTOLUENE													
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.32	J	P
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		2.3			0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE					13	NJ	PZ1						
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		1.2	J	P	0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		7.5			0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	UJ	C	0.36	UJ	C	0.36	UJ	C	0.36	UJ	C
ISOPROPYLBENZENE		0.21	U		9.2			0.21	U		0.21	U	
M+P-XYLENES		0.24	U		22			0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.75	J	P	0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		2.1			0.45	U		0.45	U	
O-XYLENE		0.28	U		13			0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.34	J	P	0.27	U		0.27	U	
STYRENE		0.23	U		0.4	J	P	0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	U		75			4.6	U		4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		35			0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	

PROJ_NO: 08424	NSAMPLE	MT-MW05S-050818			MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718		
SDG: 240-95314-1	LAB_ID	240-95314-6			240-95314-7			240-95314-2			240-95314-3		
FRACTION: OV	SAMP_DATE	5/8/2018			5/8/2018			5/7/2018			5/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BUTYLATED HYDROXYTOLUENE													
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE													
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	UJ	C	0.36	UJ	C	0.36	UJ	C	0.36	UJ	C
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		0.45	U		0.45	U		0.45	U	
O-XYLENE		0.28	U		0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	U		4.6	U		4.6	U		4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	

PROJ_NO: 08424	NSAMPLE	MT-MW09S-051018			MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-7			240-95494-4			240-95494-2			240-95314-5		
FRACTION: OV	SAMP_DATE	5/10/2018			5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BUTYLATED HYDROXYTOLUENE													
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		1.8		
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE													
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	UJ	C	0.36	UJ	C	0.36	UJ	C	0.36	UJ	C
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		0.45	U		0.45	U		0.45	U	
O-XYLENE		0.28	U		0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	U		4.6	U		4.6	U		4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	

PROJ_NO: 08424	NSAMPLE	TB-050718			TB-050918			TB-051418		
SDG: 240-95314-1	LAB_ID	240-95314-1			240-95494-1			240-95580-1		
FRACTION: OV	SAMP_DATE	5/7/2018			5/9/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			TB			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BUTYLATED HYDROXYTOLUENE										
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	U		1	U		1	U	
CHLOROETHANE		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.3	U	
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U	
CYCLOHEXANE										
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	UJ	C	0.36	UJ	C	0.36	UJ	C
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		0.45	U		0.45	U	
O-XYLENE		0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.27	U		0.27	U	
STYRENE		0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	U		4.6	U		4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-35S-051418-RE			MSA-MW-36S-051418			MSA-MW-37S-051418		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-4			240-95580-2			240-95580-3		
FRACTION: OV	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRANS-1,3-DICHLOROPROPENE		0.31	U					0.31	U		0.31	U	
TRICHLOROETHENE		2						0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U					0.5	U		0.5	U	
VINYL ACETATE		0.28	U					0.28	U		0.28	U	
VINYL CHLORIDE					2.1	J	C	0.45	UJ	C	0.45	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW01S-051018			MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918		
SDG: 240-95314-1	LAB_ID	240-95494-6			240-95494-5			240-95314-4			240-95494-3		
FRACTION: OV	SAMP_DATE	5/10/2018			5/10/2018			5/7/2018			5/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	U		0.28	U		0.28	U		0.28	U	
VINYL CHLORIDE		0.45	UJ	C	0.45	UJ	C	0.45	U		0.45	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW05S-050818			MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718		
SDG: 240-95314-1	LAB_ID	240-95314-6			240-95314-7			240-95314-2			240-95314-3		
FRACTION: OV	SAMP_DATE	5/8/2018			5/8/2018			5/7/2018			5/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.54	J	P	0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	U		0.28	U		0.28	U		0.28	U	
VINYL CHLORIDE		0.45	U		0.45	U		0.45	U		0.45	U	

PROJ_NO: 08424	NSAMPLE	MT-MW09S-051018			MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-7			240-95494-4			240-95494-2			240-95314-5		
FRACTION: OV	SAMP_DATE	5/10/2018			5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	U		0.28	U		0.28	U		0.28	U	
VINYL CHLORIDE		0.45	UJ	C	0.45	UJ	C	0.45	UJ	C	0.45	U	

PROJ_NO: 08424	NSAMPLE	TB-050718			TB-050918			TB-051418		
SDG: 240-95314-1	LAB_ID	240-95314-1			240-95494-1			240-95580-1		
FRACTION: OV	SAMP_DATE	5/7/2018			5/9/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			TB			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		0.33	U		0.33	U		0.33	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	U		0.28	U		0.28	U	
VINYL CHLORIDE		0.45	U		0.45	UJ	C	0.45	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW02S-051018		
SDG: 240-95314-1	LAB_ID	240-95494-5		
FRACTION: TICOV	SAMP_DATE	5/10/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
3-HEXANONE, 2-METHYL-		12	NJ	Z1
3-PENTANOL, 2,2-DIMETHYL-		7	NJ	Z1
3-PENTANOL, 3-METHYL-		5.7	NJ	Z1
3-PENTANONE, 2,2-DIMETHYL-		130	NJ	Z1
BENZENE, 1,2,4,5-TETRAMETHYL-		5.1	NJ	Z1
BENZENE, 1,3,5-TRIMETHYL-		7.5	NJ	Z1
BENZENE, 1-ETHYL-2-METHYL-		5.1	NJ	Z1
BENZENE, CYCLOPROPYL-		4.4	NJ	Z1
BUTANAL, 2-ETHYL-		6.8	NJ	Z1

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-36S-051418			MSA-MW-37S-051418			MT-MW01S-051018		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-2			240-95580-3			240-95494-6		
FRACTION: OS	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.3	J	C	0.24	UJ	C	0.25	UJ	C	0.25	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918			MT-MW05S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-5			240-95314-4			240-95494-3			240-95314-6		
FRACTION: OS	SAMP_DATE	5/10/2018			5/7/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.23	UJ	C	0.25	UJ	C	0.25	UJ	C	0.24	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718			MT-MW09S-051018		
SDG: 240-95314-1	LAB_ID	240-95314-7			240-95314-2			240-95314-3			240-95494-7		
FRACTION: OS	SAMP_DATE	5/8/2018			5/7/2018			5/7/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.25	UJ	C	0.25	UJ	C	0.26	UJ	C	0.25	UJ	C

PROJ_NO: 08424	NSAMPLE	MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-4			240-95494-2			240-95314-5		
FRACTION: OS	SAMP_DATE	5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.24	UJ	C	0.23	UJ	C	0.24	UJ	C

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-35S-051418-RE			MSA-MW-36S-051418			MSA-MW-37S-051418		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-4			240-95580-2			240-95580-3		
FRACTION: PET	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/14/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U					49	U		49	U	
TPH (C10-C32)					930			220	U		300	J	P

PROJ_NO: 08424	NSAMPLE	MT-MW01S-051018			MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918		
SDG: 240-95314-1	LAB_ID	240-95494-6			240-95494-5			240-95314-4			240-95494-3		
FRACTION: PET	SAMP_DATE	5/10/2018			5/10/2018			5/7/2018			5/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U		430			49	U		50	J	P
TPH (C10-C32)		1700			7000			220	U		220	U	

PROJ_NO: 08424	NSAMPLE	MT-MW05S-050818			MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718		
SDG: 240-95314-1	LAB_ID	240-95314-6			240-95314-7			240-95314-2			240-95314-3		
FRACTION: PET	SAMP_DATE	5/8/2018			5/8/2018			5/7/2018			5/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U		49	U		49	U		51	J	P
TPH (C10-C32)		230	U		230	U		220	U		230	J	P

PROJ_NO: 08424	NSAMPLE	MT-MW09S-051018			MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-7			240-95494-4			240-95494-2			240-95314-5		
FRACTION: PET	SAMP_DATE	5/10/2018			5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		56	J	P	49	U		49	U		49	U	
TPH (C10-C32)		320	J	P	220	U		220	U		490	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-36S-051418			MSA-MW-37S-051418			MT-MW01S-051018		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-2			240-95580-3			240-95494-6		
FRACTION: M	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		1.8	J	P	0.75	U		1.7	J	P
BARIUM		60			23			40			110		
BERYLLIUM		4.4			0.63	U	A	0.31	U		3.1		
CADMIUM		0.26	J	P	0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		330			91			16			170		
COPPER		2.1			2			4.6			1.7	U	
IRON		6500			1900			2000			36000		
LEAD		0.65	J	P	0.45	U		0.45	U		0.45	U	
MANGANESE		530			13			1200			2300		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		160			120			1.5	U		97		
SELENIUM		1.1	J	P	0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.27	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		0.89	J	P	2.2	J	P	3.8	J	P	0.93	J	P

PROJ_NO: 08424	NSAMPLE	MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918			MT-MW05S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-5			240-95314-4			240-95494-3			240-95314-6		
FRACTION: M	SAMP_DATE	5/10/2018			5/7/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		3.2	J	P	0.75	U		0.75	U		0.75	U	
BARIUM		84			12			54			16		
BERYLLIUM		2.7			2.4			4.7			45		
CADMIUM		0.21	U		0.21	U		0.21	U		0.97	J	P
CHROMIUM		0.98	U		1.3	J	P	0.98	U		0.98	U	
COBALT		58			10			240			440		
COPPER		3.5			3			83			29		
IRON		110000			2100			47	U		180		
LEAD		0.45	U		0.45	U		0.6	J	P	0.92	J	P
MANGANESE		830			77			240			6400		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		48			23			380			900		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.51	J	P
VANADIUM		0.82	J	P	0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718			MT-MW09S-051018		
SDG: 240-95314-1	LAB_ID	240-95314-7			240-95314-2			240-95314-3			240-95494-7		
FRACTION: M	SAMP_DATE	5/8/2018			5/7/2018			5/7/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		0.75	U		0.75	U	
BARIUM		250			11			13			44		
BERYLLIUM		110			0.71	J	P	0.69	J	P	5.9		
CADMIUM		6.2			0.21	U		0.21	U		0.21	U	
CHROMIUM		1.1	J	P	0.98	U		0.98	U		0.98	U	
COBALT		1400			9.1			7.2			13		
COPPER		53			1.7	U		1.7	U		1.7	U	
IRON		360			640			730			47	J	P
LEAD		1.6			0.45	U		0.45	U		0.45	U	
MANGANESE		23000			51			26			300		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.2	J	P	1.1	U		1.1	U		1.1	U	
NICKEL		3200			10			11			17		
SELENIUM		7.3			0.89	U		0.89	U		0.89	U	
SILVER		0.37	J	P	0.053	U		0.053	U		0.053	U	
THALLIUM		0.44	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		1.3	J	P	1.7	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-4			240-95494-2			240-95314-5		
FRACTION: M	SAMP_DATE	5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	0.57	U		0.57	U		0.57	U	
ARSENIC	0.75	U		0.75	U		0.75	U	
BARIUM	73			78			120		
BERYLLIUM	19			1.1			14		
CADMIUM	0.21	U		0.21	U		0.42	J	P
CHROMIUM	0.98	U		0.98	U		1.5	J	P
COBALT	330			320			930		
COPPER	1.7	U		1.7	U		21		
IRON	1900			3400			36000		
LEAD	0.45	U		0.45	U		0.7	J	P
MANGANESE	730			2800			11000		
MERCURY	0.13	U		0.13	U		0.13	U	
MOLYBDENUM	1.1	U		1.1	U		2.3	J	P
NICKEL	520			520			1700		
SELENIUM	0.89	U		0.89	U		1.8	J	P
SILVER	0.053	U		0.053	U		0.053	U	
THALLIUM	0.34	J	P	0.44	J	P	0.23	J	P
VANADIUM	0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-35S-051418			MSA-MW-36S-051418			MSA-MW-37S-051418			MT-MW01S-051018		
SDG: 240-95314-1	LAB_ID	240-95580-4			240-95580-2			240-95580-3			240-95494-6		
FRACTION: MF	SAMP_DATE	5/14/2018			5/14/2018			5/14/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		0.75	U		1.1	J	P
BARIUM		54			23			45			58		
BERYLLIUM		4.3			0.66	J	P	0.31	U		1.1		
CADMIUM		0.25	J	P	0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		1.1	J	P
COBALT		290			99			17			71		
COPPER		1.8	J	P	2.7			1.7	U		7		
IRON		5800			990			1100			13000		
LEAD		0.53	J	P	0.45	U		0.45	U		0.45	U	
MANGANESE		470			12			1300			960		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.3	J	P
NICKEL		160			130			1.5	U		44		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.27	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		0.82	U		1.1	J	P	4.9	J	P

PROJ_NO: 08424	NSAMPLE	MT-MW02S-051018			MT-MW03S-050718			MT-MW04S-050918			MT-MW05S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-5			240-95314-4			240-95494-3			240-95314-6		
FRACTION: MF	SAMP_DATE	5/10/2018			5/7/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		3.3	J	P	0.75	U		0.75	U		0.75	U	
BARIUM		86			13			54			16		
BERYLLIUM		2			2.2			4.7			46		
CADMIUM		0.21	U		0.21	U		0.21	U		0.92	J	P
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		56			11			230			450		
COPPER		1.7	U		4.3			86			38		
IRON		110000			320			47	U		160		
LEAD		0.45	U		0.45	U		0.55	J	P	0.96	J	P
MANGANESE		940			80			230			6500		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		40			24			380			920		
SELENIUM		1.1	J	P	0.89	U		0.89	U		1.5	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.46	J	P
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MT-MW06S-050818			MT-MW07S-050718			MT-MW08S-050718			MT-MW09S-051018		
SDG: 240-95314-1	LAB_ID	240-95314-7			240-95314-2			240-95314-3			240-95494-7		
FRACTION: MF	SAMP_DATE	5/8/2018			5/7/2018			5/7/2018			5/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		0.75	U		0.75	U	
BARIUM		230			12			12			45		
BERYLLIUM		94			0.72	J	P	0.53	J	P	5.9		
CADMIUM		5.8			0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		0.98	U	
COBALT		1200			9.8			6.7			13		
COPPER		13			1.8	J	P	2.8			1.7	U	
IRON		47	U		790			160			47	U	
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MANGANESE		21000			56			25			310		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		2700			12			11			17		
SELENIUM		5.2			0.89	U		0.89	U		0.89	U	
SILVER		0.061	J	P	0.053	U		0.053	U		0.053	U	
THALLIUM		0.47	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		1.5	J	P	0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MT-MW10S-050918			MT-MW11S-050918			MT-MW12S-050818		
SDG: 240-95314-1	LAB_ID	240-95494-4			240-95494-2			240-95314-5		
FRACTION: MF	SAMP_DATE	5/9/2018			5/9/2018			5/8/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	0.57	U		0.57	U		0.57	U	
ARSENIC	0.75	U		0.75	U		0.75	U	
BARIUM	70			78			110		
BERYLLIUM	19			0.78	J	P	4.2		
CADMIUM	0.21	U		0.21	U		0.21	U	
CHROMIUM	0.98	U		0.98	U		0.98	U	
COBALT	320			330			890		
COPPER	1.9	J	P	1.7	U		1.7	U	
IRON	930			2300			30000		
LEAD	0.45	U		0.45	U		0.45	U	
MANGANESE	720			2900			10000		
MERCURY	0.13	U		0.13	U		0.13	U	
MOLYBDENUM	1.1	U		1.1	U		1.9	J	P
NICKEL	500			540			1600		
SELENIUM	0.89	U		0.89	U		0.89	U	
SILVER	0.053	U		0.053	U		0.053	U	
THALLIUM	0.34	J	P	0.42	J	P	0.2	U	
VANADIUM	0.82	U		0.82	U		0.82	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050718 | Lab Sample ID: 240-95314-1

Matrix: Water | Lab File ID: UX972164.D

Analysis Method: 8260C | Date Collected: 05/07/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	11		10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050718 | Lab Sample ID: 240-95314-1

Matrix: Water | Lab File ID: UX972164.D

Analysis Method: 8260C | Date Collected: 05/07/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050718 Lab Sample ID: 240-95314-1

Matrix: Water Lab File ID: UX972164.D

Analysis Method: 8260C Date Collected: 05/07/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 21:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	85		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050718 | Lab Sample ID: 240-95314-1

Matrix: Water | Lab File ID: UX972164.D

Analysis Method: 8260C | Date Collected: 05/07/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050718 | Lab Sample ID: 240-95314-1

Matrix: Water | Lab File ID: UX972164.D

Analysis Method: 8260C | Date Collected: 05/07/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: UX972165.D

Analysis Method: 8260C | Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: UX972165.D

Analysis Method: 8260C | Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 Lab Sample ID: 240-95314-2

Matrix: Water Lab File ID: UX972165.D

Analysis Method: 8260C Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 21:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: UX972165.D

Analysis Method: 8260C | Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: UX972165.D

Analysis Method: 8260C | Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 21:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: UX972166.D

Analysis Method: 8260C | Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: UX972166.D

Analysis Method: 8260C | Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 Lab Sample ID: 240-95314-3

Matrix: Water Lab File ID: UX972166.D

Analysis Method: 8260C Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 22:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: UX972166.D

Analysis Method: 8260C | Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: UX972166.D

Analysis Method: 8260C | Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: UX972167.D

Analysis Method: 8260C | Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: UX972167.D

Analysis Method: 8260C | Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 Lab Sample ID: 240-95314-4

Matrix: Water Lab File ID: UX972167.D

Analysis Method: 8260C Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 22:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	83		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: UX972167.D

Analysis Method: 8260C | Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: UX972167.D

Analysis Method: 8260C | Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: UX972168.D

Analysis Method: 8260C | Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: UX972168.D

Analysis Method: 8260C | Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	1.8		1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 Lab Sample ID: 240-95314-5

Matrix: Water Lab File ID: UX972168.D

Analysis Method: 8260C Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 22:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	85		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: UX972168.D

Analysis Method: 8260C | Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: UX972168.D

Analysis Method: 8260C | Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 22:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: UX972169.D

Analysis Method: 8260C | Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: UX972169.D

Analysis Method: 8260C | Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.54	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 Lab Sample ID: 240-95314-6

Matrix: Water Lab File ID: UX972169.D

Analysis Method: 8260C Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 23:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	85		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: UX972169.D

Analysis Method: 8260C | Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: UX972169.D

Analysis Method: 8260C | Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 | Lab Sample ID: 240-95314-7

Matrix: Water | Lab File ID: UX972170.D

Analysis Method: 8260C | Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 | Lab Sample ID: 240-95314-7

Matrix: Water | Lab File ID: UX972170.D

Analysis Method: 8260C | Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 23:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Matrix: Water Lab File ID: UX972170.D

Analysis Method: 8260C Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 23:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	82		69-124
460-00-4	4-Bromofluorobenzene (Surr)	83		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Matrix: Water Lab File ID: UX972170.D

Analysis Method: 8260C Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 23:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Matrix: Water Lab File ID: UX972170.D

Analysis Method: 8260C Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 23:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050918 | Lab Sample ID: 240-95494-1

Matrix: Water | Lab File ID: UXM11487.D

Analysis Method: 8260C | Date Collected: 05/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 16:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	11		10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050918 | Lab Sample ID: 240-95494-1

Matrix: Water | Lab File ID: UXM11487.D

Analysis Method: 8260C | Date Collected: 05/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 16:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050918 Lab Sample ID: 240-95494-1

Matrix: Water Lab File ID: UXM11487.D

Analysis Method: 8260C Date Collected: 05/09/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 16:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050918 | Lab Sample ID: 240-95494-1

Matrix: Water | Lab File ID: UXM11487.D

Analysis Method: 8260C | Date Collected: 05/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 16:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-050918 | Lab Sample ID: 240-95494-1

Matrix: Water | Lab File ID: UXM11487.D

Analysis Method: 8260C | Date Collected: 05/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 16:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: UXM11488.D

Analysis Method: 8260C | Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: UXM11488.D

Analysis Method: 8260C | Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 Lab Sample ID: 240-95494-2

Matrix: Water Lab File ID: UXM11488.D

Analysis Method: 8260C Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: UXM11488.D

Analysis Method: 8260C | Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: UXM11488.D

Analysis Method: 8260C | Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: UXM11489.D

Analysis Method: 8260C | Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: UXM11489.D

Analysis Method: 8260C | Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.32	J	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 Lab Sample ID: 240-95494-3

Matrix: Water Lab File ID: UXM11489.D

Analysis Method: 8260C Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 Lab Sample ID: 240-95494-3

Matrix: Water Lab File ID: UXM11489.D

Analysis Method: 8260C Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: UXM11489.D

Analysis Method: 8260C | Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 | Lab Sample ID: 240-95494-4

Matrix: Water | Lab File ID: UXM11490.D

Analysis Method: 8260C | Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.65	J	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 | Lab Sample ID: 240-95494-4

Matrix: Water | Lab File ID: UXM11490.D

Analysis Method: 8260C | Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Matrix: Water Lab File ID: UXM11490.D

Analysis Method: 8260C Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	87		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Matrix: Water Lab File ID: UXM11490.D

Analysis Method: 8260C Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Matrix: Water Lab File ID: UXM11490.D

Analysis Method: 8260C Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 17:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: UXM11491.D

Analysis Method: 8260C | Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	3.6	J	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	4.1		1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.52	J	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	14		10	1.8
71-43-2	Benzene	17		1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: UXM11491.D

Analysis Method: 8260C | Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	75		50	4.6
100-41-4	Ethylbenzene	7.5		1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	1.2	J	10	0.44
98-82-8	Isopropylbenzene	9.2		1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	22		2.0	0.24
91-20-3	Naphthalene	0.75	J	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	2.1		1.0	0.45
95-47-6	o-Xylene	13		1.0	0.28
135-98-8	sec-Butylbenzene	0.34	J	1.0	0.27
100-42-5	Styrene	0.40	J	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	35		2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 Lab Sample ID: 240-95494-5

Matrix: Water Lab File ID: UXM11491.D

Analysis Method: 8260C Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: UXM11491.D

Analysis Method: 8260C | Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 18:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

Number TICs Found: 10 | TIC Result Total: 196.6

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
110-82-7	Cyclohexane	5.32	13	T J N	91%
77-74-7	3-Pentanol, 3-methyl-	7.25	5.7	T J N	59%
7379-12-6	3-Hexanone, 2-methyl-	7.78	12	T J N	72%
564-04-5	3-Pentanone, 2,2-dimethyl-	7.85	130	T J N	91%
3970-62-5	3-Pentanol, 2,2-dimethyl-	8.22	7.0	T J N	83%
97-96-1	Butanal, 2-ethyl-	8.34	6.8	T J N	72%
108-67-8	Benzene, 1,3,5-trimethyl-	10.02	7.5	T J N	95%
611-14-3	Benzene, 1-ethyl-2-methyl-	10.23	5.1	T J N	93%
873-49-4	Benzene, cyclopropyl-	11.02	4.4	T J N	94%
95-93-2	Benzene, 1,2,4,5-tetramethyl-	12.34	5.1	T J N	91%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 Lab Sample ID: 240-95494-5

Matrix: Water Lab File ID: UXM11491.D

Analysis Method: 8260C Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 18:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 | Lab Sample ID: 240-95494-6

Matrix: Water | Lab File ID: UXM11492.D

Analysis Method: 8260C | Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 | Lab Sample ID: 240-95494-6

Matrix: Water | Lab File ID: UXM11492.D

Analysis Method: 8260C | Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Matrix: Water Lab File ID: UXM11492.D

Analysis Method: 8260C Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Matrix: Water Lab File ID: UXM11492.D

Analysis Method: 8260C Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Matrix: Water Lab File ID: UXM11492.D

Analysis Method: 8260C Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: UXM11493.D

Analysis Method: 8260C | Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 19:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: UXM11493.D

Analysis Method: 8260C | Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 19:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U *	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U *	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 Lab Sample ID: 240-95494-7

Matrix: Water Lab File ID: UXM11493.D

Analysis Method: 8260C Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 19:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	87		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: UXM11493.D

Analysis Method: 8260C | Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 19:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: UXM11493.D

Analysis Method: 8260C | Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 19:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-051418 | Lab Sample ID: 240-95580-1

Matrix: Water | Lab File ID: UXM11561.D

Analysis Method: 8260C | Date Collected: 05/14/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 18:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.1	J	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	10		10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-051418 | Lab Sample ID: 240-95580-1

Matrix: Water | Lab File ID: UXM11561.D

Analysis Method: 8260C | Date Collected: 05/14/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 18:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-051418 Lab Sample ID: 240-95580-1

Matrix: Water Lab File ID: UXM11561.D

Analysis Method: 8260C Date Collected: 05/14/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 18:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	87		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-051418 | Lab Sample ID: 240-95580-1

Matrix: Water | Lab File ID: UXM11561.D

Analysis Method: 8260C | Date Collected: 05/14/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 18:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: TB-051418 | Lab Sample ID: 240-95580-1

Matrix: Water | Lab File ID: UXM11561.D

Analysis Method: 8260C | Date Collected: 05/14/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 18:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: UXM11562.D

Analysis Method: 8260C | Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: UXM11562.D

Analysis Method: 8260C | Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 Lab Sample ID: 240-95580-2

Matrix: Water Lab File ID: UXM11562.D

Analysis Method: 8260C Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 19:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	86		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 Lab Sample ID: 240-95580-2

Matrix: Water Lab File ID: UXM11562.D

Analysis Method: 8260C Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 19:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: UXM11562.D

Analysis Method: 8260C | Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: UXM11563.D

Analysis Method: 8260C | Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: UXM11563.D

Analysis Method: 8260C | Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 Lab Sample ID: 240-95580-3

Matrix: Water Lab File ID: UXM11563.D

Analysis Method: 8260C Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 19:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	87		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: UXM11563.D

Analysis Method: 8260C | Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: UXM11563.D

Analysis Method: 8260C | Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: UXM11564.D

Analysis Method: 8260C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.36	J	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.33	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25
75-00-3	Chloroethane	0.41	U	1.0	0.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: UXM11564.D

Analysis Method: 8260C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	9.7		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	2.0		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 Lab Sample ID: 240-95580-4

Matrix: Water Lab File ID: UXM11564.D

Analysis Method: 8260C Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 Lab Sample ID: 240-95580-4

Matrix: Water Lab File ID: UXM11564.D

Analysis Method: 8260C Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 19:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: UXM11564.D

Analysis Method: 8260C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 19:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: UXM11579.D

Analysis Method: 8260C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 14:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328532 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
594-20-7	2,2-Dichloropropane	1.5		1.0	0.34
75-01-4	Vinyl chloride	2.1		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: UXM11579.D

Analysis Method: 8260C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 14:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328532 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
128-37-0	Butylated Hydroxytoluene	12.93	2.1	T J N	95%

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: 80515005.D

Analysis Method: 8270D | Date Collected: 05/07/2018 11:29

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 260(mL) | Date Analyzed: 05/15/2018 09:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	45		35-120
1718-51-0	Terphenyl-d14 (Surr)	101		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: 80515006.D

Analysis Method: 8270D | Date Collected: 05/07/2018 14:46

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 250(mL) | Date Analyzed: 05/15/2018 10:14

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	53		35-120
1718-51-0	Terphenyl-d14 (Surr)	102		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: 80515007.D

Analysis Method: 8270D | Date Collected: 05/07/2018 17:08

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 260(mL) | Date Analyzed: 05/15/2018 10:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
1718-51-0	Terphenyl-d14 (Surr)	101		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: 80515008.D

Analysis Method: 8270D | Date Collected: 05/08/2018 10:45

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 270(mL) | Date Analyzed: 05/15/2018 11:03

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24	U	0.93	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	73		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
1718-51-0	Terphenyl-d14 (Surr)	99		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: 80515009.D

Analysis Method: 8270D | Date Collected: 05/08/2018 13:04

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 270(mL) | Date Analyzed: 05/15/2018 11:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24	U	0.93	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	95		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	73		35-120
1718-51-0	Terphenyl-d14 (Surr)	129	X	28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 | Lab Sample ID: 240-95314-7

Matrix: Water | Lab File ID: 80515010.D

Analysis Method: 8270D | Date Collected: 05/08/2018 15:20

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 260(mL) | Date Analyzed: 05/15/2018 11:53

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		35-120
1718-51-0	Terphenyl-d14 (Surr)	108		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: 80518009.D

Analysis Method: 8270D | Date Collected: 05/09/2018 10:43

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 280(mL) | Date Analyzed: 05/18/2018 10:41

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.23	U	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	48		35-120
1718-51-0	Terphenyl-d14 (Surr)	113		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: 80518010.D

Analysis Method: 8270D | Date Collected: 05/09/2018 12:50

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 11:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	52		35-120
1718-51-0	Terphenyl-d14 (Surr)	111		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 | Lab Sample ID: 240-95494-4

Matrix: Water | Lab File ID: 80518011.D

Analysis Method: 8270D | Date Collected: 05/09/2018 15:00

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 270(mL) | Date Analyzed: 05/18/2018 11:30

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24	U	0.93	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	58		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	46		35-120
1718-51-0	Terphenyl-d14 (Surr)	107		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: 80518012.D

Analysis Method: 8270D | Date Collected: 05/10/2018 09:53

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 280(mL) | Date Analyzed: 05/18/2018 11:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.23	U	0.89	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	55		35-120
1718-51-0	Terphenyl-d14 (Surr)	100		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 | Lab Sample ID: 240-95494-6

Matrix: Water | Lab File ID: 80518013.D

Analysis Method: 8270D | Date Collected: 05/10/2018 11:36

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 12:19

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	77		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-120
1718-51-0	Terphenyl-d14 (Surr)	99		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: 80518014.D

Analysis Method: 8270D | Date Collected: 05/10/2018 15:37

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 12:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	57		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	48		35-120
1718-51-0	Terphenyl-d14 (Surr)	115		28-128

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: 80518015.D

Analysis Method: 8270D | Date Collected: 05/14/2018 10:11

Extract. Method: 3510C | Date Extracted: 05/16/2018 08:40

Sample wt/vol: 270(mL) | Date Analyzed: 05/18/2018 13:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.24	U	0.93	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	122		28-128
4165-60-0	Nitrobenzene-d5 (Surr)	52		35-120
321-60-8	2-Fluorobiphenyl (Surr)	57		32-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: 80518016.D

Analysis Method: 8270D | Date Collected: 05/14/2018 11:40

Extract. Method: 3510C | Date Extracted: 05/16/2018 08:40

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 13:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.25	U	0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	111		28-128
4165-60-0	Nitrobenzene-d5 (Surr)	48		35-120
321-60-8	2-Fluorobiphenyl (Surr)	55		32-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: 80518017.D

Analysis Method: 8270D | Date Collected: 05/14/2018 15:28

Extract. Method: 3510C | Date Extracted: 05/16/2018 08:40

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 13:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.3		0.96	0.25

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		28-128
4165-60-0	Nitrobenzene-d5 (Surr)	47		35-120
321-60-8	2-Fluorobiphenyl (Surr)	55		32-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: A0051013.D

Analysis Method: 8015C | Date Collected: 05/07/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: A0051014.D

Analysis Method: 8015C | Date Collected: 05/07/2018 14:46

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	51	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: A0051015.D

Analysis Method: 8015C | Date Collected: 05/07/2018 17:08

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 15:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: A0051016.D

Analysis Method: 8015C | Date Collected: 05/08/2018 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 15:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: A0051017.D

Analysis Method: 8015C | Date Collected: 05/08/2018 13:04

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 16:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 | Lab Sample ID: 240-95314-7

Matrix: Water | Lab File ID: A0051018.D

Analysis Method: 8015C | Date Collected: 05/08/2018 15:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 16:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U F1	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: A0051516.D

Analysis Method: 8015C | Date Collected: 05/09/2018 10:43

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 17:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: A0051517.D

Analysis Method: 8015C | Date Collected: 05/09/2018 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 18:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	50	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 | Lab Sample ID: 240-95494-4

Matrix: Water | Lab File ID: A0051518.D

Analysis Method: 8015C | Date Collected: 05/09/2018 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 19:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	86		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: A0051519.D

Analysis Method: 8015C | Date Collected: 05/10/2018 09:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 19:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	430		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	87		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 | Lab Sample ID: 240-95494-6

Matrix: Water | Lab File ID: A0051520.D

Analysis Method: 8015C | Date Collected: 05/10/2018 11:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 20:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	86		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: A0051521.D

Analysis Method: 8015C | Date Collected: 05/10/2018 15:37

Sample wt/vol: 5(mL) | Date Analyzed: 05/15/2018 21:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326827 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	56	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	84		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: A0051722.D

Analysis Method: 8015C | Date Collected: 05/14/2018 10:11

Sample wt/vol: 5(mL) | Date Analyzed: 05/17/2018 17:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327232 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: A0051723.D

Analysis Method: 8015C | Date Collected: 05/14/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 05/17/2018 18:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327232 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	86		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: A0051724.D

Analysis Method: 8015C | Date Collected: 05/14/2018 15:28

Sample wt/vol: 5(mL) | Date Analyzed: 05/17/2018 19:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327232 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW07S-050718 | Lab Sample ID: 240-95314-2

Matrix: Water | Lab File ID: R051123.D

Analysis Method: 8015C | Date Collected: 05/07/2018 11:29

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 260(mL) | Date Analyzed: 05/12/2018 02:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	75		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW08S-050718 | Lab Sample ID: 240-95314-3

Matrix: Water | Lab File ID: R051124.D

Analysis Method: 8015C | Date Collected: 05/07/2018 14:46

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 250(mL) | Date Analyzed: 05/12/2018 02:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	J	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	65		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW03S-050718 | Lab Sample ID: 240-95314-4

Matrix: Water | Lab File ID: R051125.D

Analysis Method: 8015C | Date Collected: 05/07/2018 17:08

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 260(mL) | Date Analyzed: 05/12/2018 03:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	74		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW12S-050818 | Lab Sample ID: 240-95314-5

Matrix: Water | Lab File ID: R051126.D

Analysis Method: 8015C | Date Collected: 05/08/2018 10:45

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 250(mL) | Date Analyzed: 05/12/2018 03:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	490	J	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	71		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW05S-050818 | Lab Sample ID: 240-95314-6

Matrix: Water | Lab File ID: R051127.D

Analysis Method: 8015C | Date Collected: 05/08/2018 13:04

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 250(mL) | Date Analyzed: 05/12/2018 04:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	69		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW06S-050818 | Lab Sample ID: 240-95314-7

Matrix: Water | Lab File ID: R051128.D

Analysis Method: 8015C | Date Collected: 05/08/2018 15:20

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 250(mL) | Date Analyzed: 05/12/2018 04:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	68		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW11S-050918 | Lab Sample ID: 240-95494-2

Matrix: Water | Lab File ID: R051608.D

Analysis Method: 8015C | Date Collected: 05/09/2018 10:43

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 13:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW04S-050918 | Lab Sample ID: 240-95494-3

Matrix: Water | Lab File ID: R051609.D

Analysis Method: 8015C | Date Collected: 05/09/2018 12:50

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 13:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW10S-050918 | Lab Sample ID: 240-95494-4

Matrix: Water | Lab File ID: R051610.D

Analysis Method: 8015C | Date Collected: 05/09/2018 15:00

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 13:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	72		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW02S-051018 | Lab Sample ID: 240-95494-5

Matrix: Water | Lab File ID: R051611.D

Analysis Method: 8015C | Date Collected: 05/10/2018 09:53

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 14:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	7000		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	79		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW01S-051018 | Lab Sample ID: 240-95494-6

Matrix: Water | Lab File ID: R051612.D

Analysis Method: 8015C | Date Collected: 05/10/2018 11:36

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 14:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1700		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	74		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MT-MW09S-051018 | Lab Sample ID: 240-95494-7

Matrix: Water | Lab File ID: R051613.D

Analysis Method: 8015C | Date Collected: 05/10/2018 15:37

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 260(mL) | Date Analyzed: 05/16/2018 15:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	320	J	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	77		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-36S-051418 | Lab Sample ID: 240-95580-2

Matrix: Water | Lab File ID: R051810.D

Analysis Method: 8015C | Date Collected: 05/14/2018 10:11

Extraction Method: 3520C | Date Extracted: 05/17/2018 10:22

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 18:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327547 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	69		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-37S-051418 | Lab Sample ID: 240-95580-3

Matrix: Water | Lab File ID: R051811.D

Analysis Method: 8015C | Date Collected: 05/14/2018 11:40

Extraction Method: 3520C | Date Extracted: 05/17/2018 10:22

Sample wt/vol: 260(mL) | Date Analyzed: 05/18/2018 18:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327547 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	300	J	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	71		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: MSA-MW-35S-051418 | Lab Sample ID: 240-95580-4

Matrix: Water | Lab File ID: R051812.D

Analysis Method: 8015C | Date Collected: 05/14/2018 15:28

Extraction Method: 3520C | Date Extracted: 05/17/2018 10:22

Sample wt/vol: 270(mL) | Date Analyzed: 05/18/2018 19:05

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327547 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	930		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	72		37-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW07S-050718 Lab Sample ID: 240-95314-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 11:29

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW07S-050718 Lab Sample ID: 240-95314-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 11:29

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	11	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.71	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	9.1	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	640	100	47	ug/L			1	6020A
7439-96-5	Manganese	51	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	10	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW07S-050718 Lab Sample ID: 240-95314-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 11:29

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	12	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.72	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	9.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.8	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Dissolved Iron	790	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	56	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW08S-050718 Lab Sample ID: 240-95314-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 14:46

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW08S-050718 Lab Sample ID: 240-95314-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 14:46

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.69	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	7.2	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	730	100	47	ug/L			1	6020A
7439-96-5	Manganese	26	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.7	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW08S-050718 Lab Sample ID: 240-95314-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 14:46

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	12	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.53	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	6.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	2.8	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	160	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	25	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW03S-050718 Lab Sample ID: 240-95314-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 17:08

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW03S-050718 Lab Sample ID: 240-95314-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 17:08

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	12	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.4	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	10	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	3.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	2100	100	47	ug/L			1	6020A
7439-96-5	Manganese	77	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	23	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW03S-050718 Lab Sample ID: 240-95314-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/07/2018 17:08

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.2	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	11	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	4.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	320	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	80	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	24	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW12S-050818 Lab Sample ID: 240-95314-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 10:45

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW12S-050818 Lab Sample ID: 240-95314-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 10:45

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	120	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	14	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.42	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	930	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.5	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	21	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	36000	100	47	ug/L			1	6020A
7439-96-5	Manganese	11000	10	4.1	ug/L			2	6020A
7439-98-7	Molybdenum	2.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1700	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.70	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.8	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.23	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW12S-050818 Lab Sample ID: 240-95314-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 10:45

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	110	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	4.2	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	890	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	10000	10	4.1	ug/L			2	6020A
7439-98-7	Dissolved Molybdenum	1.9	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1600	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW05S-050818 Lab Sample ID: 240-95314-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 13:04

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW05S-050818 Lab Sample ID: 240-95314-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 13:04

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	45	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.97	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	440	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	29	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	180	100	47	ug/L			1	6020A
7439-96-5	Manganese	6400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	900	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.92	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.51	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW05S-050818 Lab Sample ID: 240-95314-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 13:04

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	46	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.92	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	450	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	38	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	160	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6500	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	920	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.96	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	1.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.46	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 15:20

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 15:20

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	250	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	110	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	6.2	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	1400	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	53	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	360	100	47	ug/L			1	6020A
7439-96-5	Manganese	23000	25	10	ug/L			5	6020A
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	3200	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.6	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	7.3	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.44	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.37	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW06S-050818 Lab Sample ID: 240-95314-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/08/2018 15:20

Reporting Basis: WET Date Received: 05/09/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	230	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	94	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	5.8	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	1200	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	13	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	21000	25	10	ug/L			5	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	2700	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	5.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.47	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.061	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW11S-050918 Lab Sample ID: 240-95494-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 10:43

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW11S-050918 Lab Sample ID: 240-95494-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 10:43

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	78	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	320	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	3400	100	47	ug/L			1	6020A
7439-96-5	Manganese	2800	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	520	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.44	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW11S-050918 Lab Sample ID: 240-95494-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 10:43

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	78	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.78	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	330	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	2300	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	540	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.42	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW04S-050918 Lab Sample ID: 240-95494-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 12:50

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW04S-050918 Lab Sample ID: 240-95494-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 12:50

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	54	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	4.7	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	240	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	83	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	240	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	380	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.60	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW04S-050918 Lab Sample ID: 240-95494-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 12:50

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	54	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	4.7	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	230	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	86	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	230	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	380	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.55	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 15:00

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 15:00

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	73	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	19	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	330	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	1900	100	47	ug/L			1	6020A
7439-96-5	Manganese	730	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	520	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.34	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW10S-050918 Lab Sample ID: 240-95494-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/09/2018 15:00

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	70	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	19	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	320	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.9	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Dissolved Iron	930	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	720	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	500	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.34	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW02S-051018 Lab Sample ID: 240-95494-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 09:53

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW02S-051018 Lab Sample ID: 240-95494-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 09:53

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	84	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.7	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	58	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	3.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	110000	100	47	ug/L			1	6020A
7439-96-5	Manganese	830	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	48	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW02S-051018 Lab Sample ID: 240-95494-5

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 09:53

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	3.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	86	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	56	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	110000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	940	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	40	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 11:36

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 11:36

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	110	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	36000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	97	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.93	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW01S-051018 Lab Sample ID: 240-95494-6

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 11:36

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	58	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	71	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	7.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	13000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	960	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	44	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	4.9	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MT-MW09S-051018 Lab Sample ID: 240-95494-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 15:37

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MT-MW09S-051018 Lab Sample ID: 240-95494-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 15:37

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	5.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	13	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	47	100	47	ug/L	J		1	6020A
7439-96-5	Manganese	300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	17	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MT-MW09S-051018 Lab Sample ID: 240-95494-7

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/10/2018 15:37

Reporting Basis: WET Date Received: 05/11/2018 10:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	45	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	5.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	13	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	310	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	17	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-36S-051418 Lab Sample ID: 240-95580-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 10:11

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-36S-051418 Lab Sample ID: 240-95580-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 10:11

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.63	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	91	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	2.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	1900	100	47	ug/L			1	6020A
7439-96-5	Manganese	13	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	120	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-36S-051418 Lab Sample ID: 240-95580-2

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 10:11

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.66	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	99	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	2.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	990	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	12	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	130	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-37S-051418 Lab Sample ID: 240-95580-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 11:40

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-37S-051418 Lab Sample ID: 240-95580-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 11:40

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	40	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	16	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	4.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	2000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	3.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-37S-051418 Lab Sample ID: 240-95580-3

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 11:40

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	45	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	17	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	1100	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1300	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.1	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-35S-051418 Lab Sample ID: 240-95580-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 15:28

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-35S-051418 Lab Sample ID: 240-95580-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 15:28

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	60	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	4.4	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	0.26	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	330	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	2.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	6500	100	47	ug/L			1	6020A
7439-96-5	Manganese	530	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	160	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.65	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.27	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	0.89	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-35S-051418 Lab Sample ID: 240-95580-4

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG ID.:

Matrix: Water Date Sampled: 05/14/2018 15:28

Reporting Basis: WET Date Received: 05/15/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	54	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	4.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	0.25	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	290	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.8	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Dissolved Iron	5800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	470	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	160	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.53	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.27	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

Appendix C

Support Documentation

1,2/C1,3
2,2/C2,3

5569

Chain of Custody Record

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

TestAmerica

Client Information	Sampler: Walt Pryon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011801~~ 112IC08424			
Site: MT	SSOW#:			

Analysis Requested

180325
BALTIMORE

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - Di Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas	Diox	1,4 Dioxane	Total metals	Diss metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A							
TB-050918	5/9/18	—	G	Water			2	—	—	—	—	—		
MT-MW11s-050918		1043					3	2	2	2	1	1		
MT-MW04s-050918		1250					3	2	2	2	1	1		
MT-MW10s-050918		1500					3	2	2	2	1	1		
MT-MW02s-050918	5/10/18	0953					3	2	2	2	1	1		
MT-MW01s-051018		1136					3	2	2	2	1	1		
MT-MW09s-051018		1537					3	2	2	2	1	1		

240-95494 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Pryon	5/9/18 1550	TTEC		5/10/18 1550	TA
2		5/10/18 1613	TA	POP	5-11-18 1025	TAC
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

22/C23
20/C21

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.1
Client Contact: Tony Apanavage	Phone: 301 951-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: 24011891			
Site: MT	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	GRO (8015C)	DRO (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A							
TB-050718	5/7/18	—	G	Water			2	-	-	-	-	-		
MT-MW07S-050718		1129		Water			3	2	2	2	1	1		
MT-MW08S-050718		1446		Water			3	2	2	2	1	1		
MT-MW03S-050718		1708		Water			3	2	2	2	1	1		
MT-MW12S-050818	5/8/18	1045		Water			3	2	2	2	1	1		
MT-MW05S-050818		1304		Water			3	2	2	2	1	1		
MT-MW06S-050818		1520		Water			3	2	2	2	1	1		
				Water										
				Water										
				Water										
				Water										

240-95314 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Pr	5/8/18 1540	TT IDC		5/8/18 15:42	TA
2		5/8/18			5/9/18 930	TAL
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2014

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TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

3.4/3.5

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 951-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011891~~ 112IC08424			
Site:	SSOW#:			

Analysis Requested

180325

BALTIMORE

240-95580 Chain of Custody

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Geo	Dec	1,4 Dioxane	Total metals	Diss metals	Total Number of containers	Special Instructions/Note:
				Preservation Code:			A							
TB-051418	5/14/18	—	G	Water			2	—	—	—	—	—		
MSA-MW-36S-051418		1011					3	2	2	2	1	1		
MSA-MW-37S-051418		1140					3	2	2	2	1	1		
MSA-MW-35S-051418		1528					3	2	2	2	1	1		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Walt Pryor	Date/Time: 5/14/18 1545	Company: TT INC	Received by:	Date/Time: 5/14/18 15:49	Company: TA		
Relinquished by:	Date/Time: 5/14/18 16:39	Company: TA	Received by:	Date/Time: 5/15/18 930	Company: TAC		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/12/2014

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-95314-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/9/2018 9:30 AM, 5/11/2018 10:25 AM and 5/15/2018 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.3º C, 2.1º C, 2.3º C, 2.3º C and 3.5º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-050718 (240-95314-1), TB-050918 (240-95494-1), TB-051418 (240-95580-1), MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/18/2018, 05/22/2018, 05/24/2018 and 05/25/2018.

Methylene Chloride was detected in method blank MB 240-328532/9 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The continuing calibration verification (CCV) analyzed in 240-327569 was outside the method criteria for the following analytes: 2-hexanone, and hexachlorobutadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The following samples were received preserved with hydrochloric acid: TB-050718 (240-95314-1), MT-MW07S-050718 (240-95314-2), MT-MW08S-050718 (240-95314-3), MT-MW03S-050718 (240-95314-4), MT-MW12S-050818 (240-95314-5), MT-MW05S-050818 (240-95314-6), MT-MW06S-050818 (240-95314-7), TB-050918 (240-95494-1), MT-MW11S-050918 (240-95494-2), MT-MW04S-050918 (240-95494-3), MT-MW10S-050918 (240-95494-4), MT-MW02S-051018 (240-95494-5), MT-MW01S-051018 (240-95494-6), MT-MW09S-051018 (240-95494-7), TB-051418 (240-95580-1), MSA-MW-36S-051418 (240-95580-2), MSA-MW-37S-051418 (240-95580-3) and MSA-MW-35S-051418 (240-95580-4). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The laboratory control sample (LCS) for analytical batch 240-327925 recovered outside control limits for the following analytes: cis-1,3-Dichloropropene and Vinyl Chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 240-327925 was outside the method criteria for the following analytes:

Hexachlorobutadiene, 1,2,3-Trichlorobenzene, Dichlorodi fluoromethane, Vinyl Chloride, 1,2,3-Trimethylbenzene and Butadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-328313 was outside the method criteria for the following analyte(s): Multiple Analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-051418 (240-95580-1), MSA-MW-36S-051418 (240-95580-2), MSA-MW-37S-051418 (240-95580-3), MSA-MW-35S-051418 (240-95580-4) and (CCVIS 240-328313/4)

The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Dichlorodi fluoromethane analyte name(s)]. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following samples are impacted: TB-051418 (240-95580-1), MSA-MW-36S-051418 (240-95580-2), MSA-MW-37S-051418 (240-95580-3) and MSA-MW-35S-051418 (240-95580-4).

The container used for reanalysis of the following sample contained headspace: MSA-MW-35S-051418 (240-95580-4) The method used for analysis requires that the sample does not contain headspace. Only Vinyl Chloride and 2,2,-Dichloropropane were reported from this analysis.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 240-327925.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/10/2018, 05/15/2018 and 05/16/2018 and analyzed on 05/15/2018 and 05/18/2018.

Terphenyl-d14 (Surr) failed the surrogate recovery criteria high for MT-MW05S-050818 (240-95314-6).

Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates, per fraction, to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MT-MW05S-050818 (240-95314-6). These results have been reported and qualified.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-326141, 240-326848 and 240-327250.

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

GASOLINE RANGE ORGANICS (GRO)

Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 05/10/2018, 05/15/2018 and 05/17/2018.

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

DIESEL RANGE ORGANICS (DRO)

Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 05/10/2018, 05/15/2018 and 05/17/2018 and analyzed on 05/12/2018, 05/16/2018 and 05/18/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-326204, 240-326204, 240-326893 and 240-327290.

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

DISSOLVED METALS (ICPMS)
Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 05/10/2018, 05/14/2018 and 05/16/2018 and analyzed on 05/16/2018, 05/19/2018 and 05/22/2018.

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

TOTAL RECOVERABLE METALS (ICPMS)
Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/10/2018, 05/14/2018 and 05/16/2018 and analyzed on 05/16/2018, 05/19/2018 and 05/22/2018.

Samples MT-MW12S-050818 (240-95314-5)[2X] and MT-MW06S-050818 (240-95314-7)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISSOLVED MERCURY (CVAA)
Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/10/2018, 05/14/2018 and 05/16/2018 and analyzed on 05/11/2018, 05/15/2018 and 05/17/2018.

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

TOTAL MERCURY
Samples MT-MW07S-050718 (240-95314-2), MT-MW11S-050918 (240-95494-2), MSA-MW-36S-051418 (240-95580-2), MT-MW08S-050718 (240-95314-3), MT-MW04S-050918 (240-95494-3), MSA-MW-37S-051418 (240-95580-3), MT-MW03S-050718 (240-95314-4), MT-MW10S-050918 (240-95494-4), MSA-MW-35S-051418 (240-95580-4), MT-MW12S-050818 (240-95314-5), MT-MW02S-051018 (240-95494-5), MT-MW05S-050818 (240-95314-6), MT-MW01S-051018 (240-95494-6), MT-MW06S-050818 (240-95314-7) and MT-MW09S-051018 (240-95494-7) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/10/2018, 05/14/2018 and 05/16/2018 and analyzed on 05/11/2018, 05/15/2018 and 05/17/2018.

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-95314-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-95314-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-95314-1	TB-050718	Water	05/07/18 00:00	05/09/18 09:30
240-95314-2	MT-MW07S-050718	Water	05/07/18 11:29	05/09/18 09:30
240-95314-3	MT-MW08S-050718	Water	05/07/18 14:46	05/09/18 09:30
240-95314-4	MT-MW03S-050718	Water	05/07/18 17:08	05/09/18 09:30
240-95314-5	MT-MW12S-050818	Water	05/08/18 10:45	05/09/18 09:30
240-95314-6	MT-MW05S-050818	Water	05/08/18 13:04	05/09/18 09:30
240-95314-7	MT-MW06S-050818	Water	05/08/18 15:20	05/09/18 09:30
240-95494-1	TB-050918	Water	05/09/18 00:00	05/11/18 10:25
240-95494-2	MT-MW11S-050918	Water	05/09/18 10:43	05/11/18 10:25
240-95494-3	MT-MW04S-050918	Water	05/09/18 12:50	05/11/18 10:25
240-95494-4	MT-MW10S-050918	Water	05/09/18 15:00	05/11/18 10:25
240-95494-5	MT-MW02S-051018	Water	05/10/18 09:53	05/11/18 10:25
240-95494-6	MT-MW01S-051018	Water	05/10/18 11:36	05/11/18 10:25
240-95494-7	MT-MW09S-051018	Water	05/10/18 15:37	05/11/18 10:25
240-95580-1	TB-051418	Water	05/14/18 00:00	05/15/18 09:30
240-95580-2	MSA-MW-36S-051418	Water	05/14/18 10:11	05/15/18 09:30
240-95580-3	MSA-MW-37S-051418	Water	05/14/18 11:40	05/15/18 09:30
240-95580-4	MSA-MW-35S-051418	Water	05/14/18 15:28	05/15/18 09:30

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-050718	240-95314-1	85	95	87	85
MT-MW07S-050718	240-95314-2	85	92	93	88
MT-MW08S-050718	240-95314-3	93	108	103	99
MT-MW03S-050718	240-95314-4	82	89	87	83
MT-MW12S-050818	240-95314-5	83	90	88	85
MT-MW05S-050818	240-95314-6	82	92	89	85
MT-MW06S-050818	240-95314-7	82	91	87	83
TB-050918	240-95494-1	102	97	95	91
MT-MW11S-050918	240-95494-2	102	101	95	89
MT-MW04S-050918	240-95494-3	102	98	96	93
MT-MW10S-050918	240-95494-4	97	96	92	87
MT-MW02S-051018	240-95494-5	98	95	91	89
MT-MW01S-051018	240-95494-6	95	93	91	88
MT-MW09S-051018	240-95494-7	97	96	91	87
TB-051418	240-95580-1	100	94	90	87
MSA-MW-36S-051418	240-95580-2	96	95	88	86
MSA-MW-37S-051418	240-95580-3	97	95	90	87
MSA-MW-35S-051418	240-95580-4	104	100	94	92
MSA-MW-35S-051418	240-95580-4	105	100	95	90
	MB 240-327569/7	93	103	100	94
	MB 240-327925/9	107	104	100	98
	MB 240-328313/9	99	96	90	90
	MB 240-328532/9	104	98	92	88
	LCS 240-327569/4	80	86	86	89
	LCS 240-327925/5	111	104	101	99
	LCS 240-328313/5	101	94	91	88
	LCS 240-328532/5	101	99	90	88

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX972154.D

Lab ID: LCS 240-327569/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.3	97	73-136	
1,1,1-Trichloroethane	20.0	19.8	99	64-147	
1,1,2,2-Tetrachloroethane	20.0	17.9	90	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	24.1	121	65-144	
1,1-Dichloroethane	20.0	19.9	99	74-120	
1,1-Dichloroethene	20.0	22.9	115	65-127	
1,1-Dichloropropene	20.0	18.9	94	80-122	
1,2,3-Trichlorobenzene	20.0	21.5	108	31-144	
1,2,3-Trichloropropane	20.0	18.6	93	53-134	
1,2,4-Trichlorobenzene	20.0	20.5	103	34-141	
1,2,4-Trimethylbenzene	20.0	18.4	92	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.2	91	50-130	
1,2-Dichlorobenzene	20.0	18.7	94	80-120	
1,2-Dichloroethane	20.0	18.8	94	68-133	
1,2-Dichloropropane	20.0	19.4	97	78-127	
1,3-Dichlorobenzene	20.0	18.4	92	80-120	
1,3-Dichloropropane	20.0	18.5	92	71-124	
1,4-Dichlorobenzene	20.0	17.4	87	80-120	
2,2-Dichloropropane	20.0	18.7	93	32-178	
2-Butanone (MEK)	40.0	37.8	95	43-149	
2-Chloroethyl vinyl ether	20.0	19.3	96	58-123	
2-Chlorotoluene	20.0	19.2	96	80-120	
2-Hexanone	40.0	33.6	84	28-169	
4-Chlorotoluene	20.0	19.1	96	79-120	
4-Isopropyltoluene	20.0	19.4	97	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	34.9	87	53-144	
Acetone	40.0	43.7	109	35-131	
Benzene	20.0	19.0	95	79-120	
Bromobenzene	20.0	18.7	94	73-120	
Bromoform	20.0	17.7	89	55-145	
Bromomethane	20.0	19.7	99	17-158	
Carbon disulfide	20.0	20.9	104	49-141	
Carbon tetrachloride	20.0	19.8	99	55-171	
Chlorobenzene	20.0	18.7	94	80-120	
Chlorodibromomethane	20.0	17.9	89	64-129	
Chloroethane	20.0	19.5	98	10-149	
Chloroform	20.0	18.1	90	80-120	
Chloromethane	20.0	19.2	96	59-124	
cis-1,2-Dichloroethene	20.0	18.5	92	77-120	
cis-1,3-Dichloropropene	20.0	20.5	102	75-120	
Dibromomethane	20.0	19.8	99	80-120	
Bromochloromethane	20.0	19.2	96	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UX972154.D

Lab ID: LCS 240-327569/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	22.3	112	42-141	
Bromodichloromethane	20.0	18.0	90	79-125	
tert-Butyl alcohol	200	187	94	52-136	
Ethylbenzene	20.0	18.6	93	80-120	
Hexachlorobutadiene	20.0	24.3	122	36-146	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl tert-butyl ether	20.0	18.4	92	73-120	
Methylene Chloride	20.0	20.7	103	64-140	
m-Xylene & p-Xylene	20.0	18.9	95	80-120	
Naphthalene	20.0	19.5	98	31-127	
n-Butylbenzene	20.0	19.3	96	60-137	
N-Propylbenzene	20.0	19.8	99	76-120	
o-Xylene	20.0	18.8	94	80-120	
sec-Butylbenzene	20.0	19.6	98	76-124	
Styrene	20.0	19.0	95	80-121	
Tetrachloroethene	20.0	20.5	102	80-122	
Toluene	20.0	18.2	91	78-120	
trans-1,2-Dichloroethene	20.0	19.1	96	74-124	
trans-1,3-Dichloropropene	20.0	18.7	93	67-120	
Trichloroethene	20.0	19.8	99	76-124	
Trichlorofluoromethane	20.0	24.4	122	27-176	
Vinyl acetate	20.0	19.0	95	42-141	
Vinyl chloride	20.0	23.0	115	65-124	
Xylenes, Total	40.0	37.7	94	80-120	
tert-Butylbenzene	20.0	19.0	95	79-120	
1,2-Dibromoethane	20.0	18.9	94	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11469.D

Lab ID: LCS 240-327925/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	21.2	106	73-136	
1,1,1-Trichloroethane	20.0	24.1	120	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.6	103	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	24.5	122	65-144	
1,1-Dichloroethane	20.0	23.1	116	74-120	
1,1-Dichloroethene	20.0	23.3	116	65-127	
1,1-Dichloropropene	20.0	22.9	114	80-122	
1,2,3-Trichlorobenzene	20.0	16.9	84	31-144	
1,2,3-Trichloropropane	20.0	19.4	97	53-134	
1,2,4-Trichlorobenzene	20.0	17.2	86	34-141	
1,2,4-Trimethylbenzene	20.0	19.6	98	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.3	96	50-130	
1,2-Dichlorobenzene	20.0	19.6	98	80-120	
1,2-Dichloroethane	20.0	22.8	114	68-133	
1,2-Dichloropropane	20.0	23.9	120	78-127	
1,3-Dichlorobenzene	20.0	19.7	98	80-120	
1,3-Dichloropropane	20.0	20.7	103	71-124	
1,4-Dichlorobenzene	20.0	19.7	98	80-120	
2,2-Dichloropropane	20.0	23.8	119	32-178	
2-Butanone (MEK)	40.0	40.9	102	43-149	
2-Chloroethyl vinyl ether	20.0	23.6	118	58-123	
2-Chlorotoluene	20.0	20.1	101	80-120	
2-Hexanone	40.0	37.8	94	28-169	
4-Chlorotoluene	20.0	20.6	103	79-120	
4-Isopropyltoluene	20.0	19.5	98	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	42.8	107	53-144	
Acetone	40.0	41.9	105	35-131	
Benzene	20.0	22.3	112	79-120	
Bromobenzene	20.0	21.0	105	73-120	
Bromoform	20.0	21.0	105	55-145	
Bromomethane	20.0	23.7	118	17-158	
Carbon disulfide	20.0	23.3	116	49-141	
Carbon tetrachloride	20.0	23.6	118	55-171	
Chlorobenzene	20.0	20.6	103	80-120	
Chlorodibromomethane	20.0	21.4	107	64-129	
Chloroethane	20.0	23.5	118	10-149	
Chloroform	20.0	22.7	114	80-120	
Chloromethane	20.0	21.7	108	59-124	
cis-1,2-Dichloroethene	20.0	23.6	118	77-120	
cis-1,3-Dichloropropene	20.0	24.2	121	75-120	*
Dibromomethane	20.0	22.5	113	80-120	
Bromochloromethane	20.0	23.6	118	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11469.D

Lab ID: LCS 240-327925/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	24.7	123	42-141	
Bromodichloromethane	20.0	22.9	115	79-125	
tert-Butyl alcohol	200	189	94	52-136	
Ethylbenzene	20.0	20.8	104	80-120	
Hexachlorobutadiene	20.0	17.0	85	36-146	
Isopropylbenzene	20.0	20.4	102	80-128	
Methyl tert-butyl ether	20.0	22.1	110	73-120	
Methylene Chloride	20.0	21.6	108	64-140	
m-Xylene & p-Xylene	20.0	20.7	104	80-120	
Naphthalene	20.0	17.4	87	31-127	
n-Butylbenzene	20.0	18.4	92	60-137	
N-Propylbenzene	20.0	20.3	101	76-120	
o-Xylene	20.0	20.4	102	80-120	
sec-Butylbenzene	20.0	19.2	96	76-124	
Styrene	20.0	20.8	104	80-121	
Tetrachloroethene	20.0	21.1	105	80-122	
Toluene	20.0	20.8	104	78-120	
trans-1,2-Dichloroethene	20.0	23.8	119	74-124	
trans-1,3-Dichloropropene	20.0	20.6	103	67-120	
Trichloroethene	20.0	22.6	113	76-124	
Trichlorofluoromethane	20.0	23.9	120	27-176	
Vinyl acetate	20.0	21.5	108	42-141	
Vinyl chloride	20.0	26.3	131	65-124	*
Xylenes, Total	40.0	41.1	103	80-120	
tert-Butylbenzene	20.0	19.8	99	79-120	
1,2-Dibromoethane	20.0	20.7	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11537.D

Lab ID: LCS 240-328313/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.2	101	73-136	
1,1,1-Trichloroethane	20.0	22.9	114	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.8	94	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	23.5	117	65-144	
1,1-Dichloroethane	20.0	22.7	114	74-120	
1,1-Dichloroethene	20.0	22.8	114	65-127	
1,1-Dichloropropene	20.0	21.8	109	80-122	
1,2,3-Trichlorobenzene	20.0	17.4	87	31-144	
1,2,3-Trichloropropane	20.0	18.3	91	53-134	
1,2,4-Trichlorobenzene	20.0	17.1	85	34-141	
1,2,4-Trimethylbenzene	20.0	18.0	90	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.7	88	50-130	
1,2-Dichlorobenzene	20.0	18.5	92	80-120	
1,2-Dichloroethane	20.0	21.7	108	68-133	
1,2-Dichloropropane	20.0	23.0	115	78-127	
1,3-Dichlorobenzene	20.0	18.4	92	80-120	
1,3-Dichloropropane	20.0	19.1	96	71-124	
1,4-Dichlorobenzene	20.0	18.4	92	80-120	
2,2-Dichloropropane	20.0	24.6	123	32-178	
2-Butanone (MEK)	40.0	38.7	97	43-149	
2-Chloroethyl vinyl ether	20.0	22.0	110	58-123	
2-Chlorotoluene	20.0	19.2	96	80-120	
2-Hexanone	40.0	35.0	88	28-169	
4-Chlorotoluene	20.0	19.3	96	79-120	
4-Isopropyltoluene	20.0	18.2	91	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	40.0	100	53-144	
Acetone	40.0	38.9	97	35-131	
Benzene	20.0	21.8	109	79-120	
Bromobenzene	20.0	19.6	98	73-120	
Bromoform	20.0	19.5	97	55-145	
Bromomethane	20.0	21.1	106	17-158	
Carbon disulfide	20.0	23.0	115	49-141	
Carbon tetrachloride	20.0	22.5	112	55-171	
Chlorobenzene	20.0	19.4	97	80-120	
Chlorodibromomethane	20.0	19.8	99	64-129	
Chloroethane	20.0	20.5	103	10-149	
Chloroform	20.0	21.9	110	80-120	
Chloromethane	20.0	19.4	97	59-124	
cis-1,2-Dichloroethene	20.0	22.8	114	77-120	
cis-1,3-Dichloropropene	20.0	22.9	114	75-120	
Dibromomethane	20.0	21.6	108	80-120	
Bromochloromethane	20.0	23.5	118	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11537.D

Lab ID: LCS 240-328313/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.5	82	42-141	
Bromodichloromethane	20.0	22.0	110	79-125	
tert-Butyl alcohol	200	184	92	52-136	
Ethylbenzene	20.0	19.8	99	80-120	
Hexachlorobutadiene	20.0	17.3	87	36-146	
Isopropylbenzene	20.0	19.6	98	80-128	
Methyl tert-butyl ether	20.0	21.7	109	73-120	
Methylene Chloride	20.0	21.1	106	64-140	
m-Xylene & p-Xylene	20.0	19.7	98	80-120	
Naphthalene	20.0	17.1	85	31-127	
n-Butylbenzene	20.0	17.1	86	60-137	
N-Propylbenzene	20.0	19.0	95	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	17.9	89	76-124	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	19.8	99	80-122	
Toluene	20.0	19.6	98	78-120	
trans-1,2-Dichloroethene	20.0	23.9	120	74-124	
trans-1,3-Dichloropropene	20.0	19.2	96	67-120	
Trichloroethene	20.0	21.8	109	76-124	
Trichlorofluoromethane	20.0	19.2	96	27-176	
Vinyl acetate	20.0	22.5	112	42-141	
Vinyl chloride	20.0	21.7	109	65-124	
Xylenes, Total	40.0	39.3	98	80-120	
tert-Butylbenzene	20.0	18.7	94	79-120	
1,2-Dibromoethane	20.0	19.3	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11568.D

Lab ID: LCS 240-328532/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	18.6	93	73-136	
1,1,1-Trichloroethane	20.0	22.3	112	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.0	100	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	24.2	121	65-144	
1,1-Dichloroethane	20.0	21.2	106	74-120	
1,1-Dichloroethene	20.0	22.4	112	65-127	
1,1-Dichloropropene	20.0	20.6	103	80-122	
1,2,3-Trichlorobenzene	20.0	16.1	81	31-144	
1,2,3-Trichloropropane	20.0	19.0	95	53-134	
1,2,4-Trichlorobenzene	20.0	16.0	80	34-141	
1,2,4-Trimethylbenzene	20.0	17.4	87	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.6	98	50-130	
1,2-Dichlorobenzene	20.0	17.6	88	80-120	
1,2-Dichloroethane	20.0	21.4	107	68-133	
1,2-Dichloropropane	20.0	21.8	109	78-127	
1,3-Dichlorobenzene	20.0	17.3	86	80-120	
1,3-Dichloropropane	20.0	19.5	97	71-124	
1,4-Dichlorobenzene	20.0	17.4	87	80-120	
2,2-Dichloropropane	20.0	17.7	89	32-178	
2-Butanone (MEK)	40.0	48.7	122	43-149	
2-Chloroethyl vinyl ether	20.0	24.5	122	58-123	
2-Chlorotoluene	20.0	17.8	89	80-120	
2-Hexanone	40.0	42.3	106	28-169	
4-Chlorotoluene	20.0	18.1	90	79-120	
4-Isopropyltoluene	20.0	16.6	83	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	48.1	120	53-144	
Acetone	40.0	45.0	112	35-131	
Benzene	20.0	21.0	105	79-120	
Bromobenzene	20.0	18.9	95	73-120	
Bromoform	20.0	20.0	100	55-145	
Bromomethane	20.0	20.8	104	17-158	
Carbon disulfide	20.0	25.7	128	49-141	
Carbon tetrachloride	20.0	21.6	108	55-171	
Chlorobenzene	20.0	18.5	93	80-120	
Chlorodibromomethane	20.0	19.5	98	64-129	
Chloroethane	20.0	20.2	101	10-149	
Chloroform	20.0	20.7	103	80-120	
cis-1,2-Dichloroethene	20.0	21.3	107	77-120	
cis-1,3-Dichloropropene	20.0	22.6	113	75-120	
Dibromomethane	20.0	21.2	106	80-120	
Bromochloromethane	20.0	22.0	110	78-120	
Dichlorodifluoromethane	20.0	20.1	100	42-141	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM11568.D

Lab ID: LCS 240-328532/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	20.0	21.5	108	79-125	
tert-Butyl alcohol	200	233	116	52-136	
Ethylbenzene	20.0	18.2	91	80-120	
Hexachlorobutadiene	20.0	15.3	77	36-146	
Isopropylbenzene	20.0	17.9	89	80-128	
Methyl tert-butyl ether	20.0	21.7	108	73-120	
Methylene Chloride	20.0	20.7	104	64-140	
m-Xylene & p-Xylene	20.0	18.0	90	80-120	
Naphthalene	20.0	18.6	93	31-127	
n-Butylbenzene	20.0	15.7	79	60-137	
N-Propylbenzene	20.0	18.0	90	76-120	
o-Xylene	20.0	17.9	90	80-120	
sec-Butylbenzene	20.0	16.7	83	76-124	
Styrene	20.0	18.9	95	80-121	
Tetrachloroethene	20.0	18.7	93	80-122	
Toluene	20.0	18.5	93	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	74-124	
trans-1,3-Dichloropropene	20.0	19.1	95	67-120	
Trichloroethene	20.0	21.5	107	76-124	
Trichlorofluoromethane	20.0	19.1	95	27-176	
Vinyl acetate	20.0	22.9	114	42-141	
Vinyl chloride	20.0	22.5	113	65-124	
Xylenes, Total	40.0	35.9	90	80-120	
tert-Butylbenzene	20.0	17.5	87	79-120	
1,2-Dibromoethane	20.0	20.2	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: UX972157.D Lab Sample ID: MB 240-327569/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX9 Date Analyzed: 05/18/2018 18:39

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-327569/4	UX972154.D	05/18/2018 17:31
TB-050718	240-95314-1	UX972164.D	05/18/2018 21:20
MT-MW07S-050718	240-95314-2	UX972165.D	05/18/2018 21:44
MT-MW08S-050718	240-95314-3	UX972166.D	05/18/2018 22:07
MT-MW03S-050718	240-95314-4	UX972167.D	05/18/2018 22:30
MT-MW12S-050818	240-95314-5	UX972168.D	05/18/2018 22:53
MT-MW05S-050818	240-95314-6	UX972169.D	05/18/2018 23:16
MT-MW06S-050818	240-95314-7	UX972170.D	05/18/2018 23:39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327569/7

Matrix: Water | Lab File ID: UX972157.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327569/7

Matrix: Water | Lab File ID: UX972157.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-327569/7

Matrix: Water Lab File ID: UX972157.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/18/2018 18:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327569 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	93		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327569/7

Matrix: Water | Lab File ID: UX972157.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 20.05

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	3.64	10.5	T J	
	Unknown	4.69	9.55	T J	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327569/7

Matrix: Water | Lab File ID: UX972157.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/18/2018 18:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327569 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: UXM11473.D Lab Sample ID: MB 240-327925/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/22/2018 10:50

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-327925/5	UXM11469.D	05/22/2018 09:15
TB-050918	240-95494-1	UXM11487.D	05/22/2018 16:42
MT-MW11S-050918	240-95494-2	UXM11488.D	05/22/2018 17:05
MT-MW04S-050918	240-95494-3	UXM11489.D	05/22/2018 17:30
MT-MW10S-050918	240-95494-4	UXM11490.D	05/22/2018 17:53
MT-MW02S-051018	240-95494-5	UXM11491.D	05/22/2018 18:17
MT-MW01S-051018	240-95494-6	UXM11492.D	05/22/2018 18:41
MT-MW09S-051018	240-95494-7	UXM11493.D	05/22/2018 19:04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327925/9

Matrix: Water | Lab File ID: UXM11473.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327925/9

Matrix: Water | Lab File ID: UXM11473.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-327925/9

Matrix: Water Lab File ID: UXM11473.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/22/2018 10:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327925 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	107		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327925/9

Matrix: Water | Lab File ID: UXM11473.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 22.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	3.74	12.5	T J	
	Unknown	4.78	10.2	T J	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327925/9

Matrix: Water | Lab File ID: UXM11473.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/22/2018 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 327925 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: UXM11541.D Lab Sample ID: MB 240-328313/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/24/2018 10:43

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328313/5	UXM11537.D	05/24/2018 09:08
TB-051418	240-95580-1	UXM11561.D	05/24/2018 18:45
MSA-MW-36S-051418	240-95580-2	UXM11562.D	05/24/2018 19:09
MSA-MW-37S-051418	240-95580-3	UXM11563.D	05/24/2018 19:33
MSA-MW-35S-051418	240-95580-4	UXM11564.D	05/24/2018 19:57

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328313/9

Matrix: Water | Lab File ID: UXM11541.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 10:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328313/9

Matrix: Water | Lab File ID: UXM11541.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 10:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328313/9

Matrix: Water Lab File ID: UXM11541.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 10:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328313/9

Matrix: Water Lab File ID: UXM11541.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 10:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328313 Units: ug/L

Number TICs Found: 1 TIC Result Total: 9.47

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	4.78	9.47	T J	

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328313/9

Matrix: Water | Lab File ID: UXM11541.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 10:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328313 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: UXM11572.D Lab Sample ID: MB 240-328532/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 05/25/2018 11:34

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328532/5	UXM11568.D	05/25/2018 10:00
MSA-MW-35S-051418	240-95580-4	UXM11579.D	05/25/2018 14:34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328532/9

Matrix: Water | Lab File ID: UXM11572.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 11:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328532 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328532/9

Matrix: Water | Lab File ID: UXM11572.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 11:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328532 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.912	J	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328532/9

Matrix: Water Lab File ID: UXM11572.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/25/2018 11:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328532 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328532/9

Matrix: Water | Lab File ID: UXM11572.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 11:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328532 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 8.99

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	4.78	8.99	T J	

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328532/9

Matrix: Water Lab File ID: UXM11572.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/25/2018 11:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328532 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB5611.D BFB Injection Date: 04/20/2018

Instrument ID: A3UX16 BFB Injection Time: 10:26

Analysis Batch No.: 323374

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	49.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	1.0	(1.2) 1
174	50.0 - 120.00 % of mass 95	78.2	
175	5.0 - 9.0 % of mass 174	6.2	(8.0) 1
176	95.0 - 101.0 % of mass 174	75.3	(96.2) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-323374/9	UXM10697.D	04/20/2018	10:52
	STD8260 240-323374/10	UXM10698.D	04/20/2018	11:16
	STD8260 240-323374/11	UXM10699.D	04/20/2018	11:40
	ICIS 240-323374/12	UXM10700.D	04/20/2018	12:04
	STD8260 240-323374/13	UXM10701.D	04/20/2018	12:27
	STD8260 240-323374/14	UXM10702.D	04/20/2018	12:51
	STD8260 240-323374/15	UXM10703.D	04/20/2018	13:14
	STDA9 240-323374/19	UXM10707.D	04/20/2018	14:49
	STDA9 240-323374/20	UXM10708.D	04/20/2018	15:13
	STDA9 240-323374/21	UXM10709.D	04/20/2018	15:36
	STDA9 240-323374/22	UXM10710.D	04/20/2018	15:59
	STDA9 240-323374/23	UXM10711.D	04/20/2018	16:22
	STDA9 240-323374/24	UXM10712.D	04/20/2018	16:46
	ICV 240-323374/25	UXM10713.D	04/20/2018	17:09

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-323374/15	UXM10703.D
Level 2	STD8260 240-323374/14	UXM10702.D
Level 3	STD8260 240-323374/13	UXM10701.D
Level 4	ICIS 240-323374/12	UXM10700.D
Level 5	STD8260 240-323374/11	UXM10699.D
Level 6	STD8260 240-323374/10	UXM10698.D
Level 7	STD8260 240-323374/9	UXM10697.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3695 0.3417	0.2515 0.2840	0.3417	0.3508	0.2939	Ave		0.3190			0.1000	13.4		20.0			
Chloromethane	0.3288 0.3076	0.2809 0.2878	0.3025	0.2860	0.3069	Ave		0.3001			0.1000	5.5		20.0			
Vinyl chloride	0.2911 0.3439	0.2749 0.2955	0.3241	0.3308	0.3177	Ave		0.3112			0.1000	7.9		20.0			
Butadiene	0.2849 0.3148	0.2889 0.2555	0.2985	0.3045	0.2640	Ave		0.2873				7.4		20.0			
Bromomethane	+++++ 0.1896	0.1940 0.1997	0.1847	0.1689	0.1872	Ave		0.1874			0.0500	5.6		20.0			
Chloroethane	0.2287 0.2138	0.1859 0.2154	0.2024	0.1966	0.2064	Ave		0.2070			0.0500	6.7		20.0			
Dichlorofluoromethane	0.5064 0.4364	0.4905 0.4341	0.4272	0.3749	0.4140	Ave		0.4405				10.2		20.0			
Trichlorofluoromethane	0.3402 0.3930	0.2956 0.3427	0.3583	0.3592	0.3260	Ave		0.3450			0.1000	8.8		20.0			
Ethyl ether	0.2319 0.2220	0.1891 0.2233	0.2087	0.2170	0.2354	Ave		0.2182				7.2		20.0			
Acrolein	0.0681 0.0432	0.0538 0.0433	0.0493	0.0498	0.0483	Ave		0.0508				16.7		20.0			
1,1-Dichloroethene	0.2702 0.2749	0.2411 0.2687	0.2536	0.2720	0.2760	Ave		0.2652			0.1000	4.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1615 0.2156	0.1508 0.1991	0.1904	0.1899	0.1915	Ave		0.1855			0.0500	12.0		20.0			
Acetone	0.0922 0.0232	0.0625 0.0235	0.0303	0.0288	0.0271	Lin1	0.0740	0.0240			0.0100	14.3			0.9940		0.9900
Iodomethane	0.3649 0.4120	0.3768 0.4355	0.3916	0.3715	0.4213	Ave		0.3962				6.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.8014 0.8531	0.7034 0.8668	0.7522	0.9109	0.9934	Ave		0.8402			0.1000	11.6		20.0			
3-Chloro-1-propene	+++++ 0.4313	0.5193 0.4386	0.3811	0.3848	0.4289	Ave		0.4307				11.6		20.0			
Methyl acetate	+++++ 0.1925	0.2340 0.1944	0.1979	0.2362	0.2318	Ave		0.2145			0.1000	10.0		20.0			
Methylene Chloride	+++++ 0.2807	0.3079 0.2939	0.2637	0.2602	0.2928	Ave		0.2832			0.1000	6.6		20.0			
2-Methyl-2-propanol	0.0202 +++++	0.0207 +++++	0.0262	0.0286	0.0260	Ave		0.0243				15.2		20.0			
Acrylonitrile	0.0960 0.0898	0.0817 0.0987	0.0978	0.1057	0.1070	Ave		0.0967				9.1		20.0			
trans-1,2-Dichloroethene	0.2832 0.2783	0.2595 0.2860	0.2655	0.2611	0.2784	Ave		0.2731			0.1000	4.0		20.0			
Methyl tert-butyl ether	0.7704 0.7687	0.6763 0.8333	0.7832	0.7976	0.8557	Ave		0.7836			0.1000	7.3		20.0			
Hexane	+++++ 0.2938	0.2858 0.2413	0.2723	0.2523	0.2359	Ave		0.2636				9.1		20.0			
1,1-Dichloroethane	0.4049 0.4589	0.4130 0.4815	0.4307	0.4154	0.4573	Ave		0.4374			0.2000	6.6		20.0			
Vinyl acetate	0.4503 0.4255	0.3569 0.4464	0.4131	0.4407	0.4746	Ave		0.4297				8.7		20.0			
cis-1,2-Dichloroethene	0.2875 0.3013	0.2878 0.3156	0.2865	0.2794	0.3021	Ave		0.2943			0.1000	4.2		20.0			
2-Butanone (MEK)	0.0290 +++++	0.0269 +++++	0.0325	0.0382	0.0360	Ave		0.0325			0.0100	14.5		20.0			
2,2-Dichloropropane	+++++ 0.0622	0.0541 0.0630	0.0586	0.0480	0.0554	Ave		0.0569				9.8		20.0			
Chlorobromomethane	0.1210 0.1375	0.1266 0.1394	0.1301	0.1279	0.1417	Ave		0.1320				5.8		20.0			
Tetrahydrofuran	0.0884 +++++	0.1021 +++++	0.0730	0.0830	0.0804	Ave		0.0854				12.7		20.0			
Chloroform	0.4581 0.4571	0.4161 0.4733	0.4313	0.4252	0.4689	Ave		0.4472			0.2000	5.1		20.0			
1,1,1-Trichloroethane	0.3890 0.3756	0.3189 0.3743	0.3390	0.3016	0.3399	Ave		0.3483			0.1000	9.3		20.0			
Cyclohexane	0.4267 0.4159	0.3251 0.3867	0.3728	0.3584	0.3538	Ave		0.3771			0.1000	9.5		20.0			
1,1-Dichloropropene	0.3554 0.3794	0.3080 0.3828	0.3474	0.3536	0.3738	Ave		0.3572				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2924 0.3141	0.2360 0.2962	0.2873	0.2699	0.2891	Ave		0.2836			0.1000	8.7		20.0			
Isobutyl alcohol	0.0081 +++++	0.0067 +++++	0.0077	0.0094	0.0089	Ave		0.0082				12.6		20.0			
Benzene	1.0211 1.0829	0.9604 1.1297	0.9944	1.0101	1.0943	Ave		1.0418			0.5000	5.9		20.0			
1,2-Dichloroethane	0.3532 0.3796	0.3301 0.3929	0.3529	0.3585	0.3940	Ave		0.3659			0.1000	6.5		20.0			
n-Heptane	1.5975 0.1689	0.9478 0.1147	0.1982	0.1601	0.1221	Ave		0.4728				22.3	*	20.0			
Trichloroethene	0.2704 0.2829	0.2552 0.2739	0.2686	0.2641	0.2869	Ave		0.2717			0.1500	4.0		20.0			
Methylcyclohexane	0.4109 0.3962	0.3404 0.3293	0.3468	0.3304	0.3059	Ave		0.3514			0.1000	10.8		20.0			
1,2-Dichloropropane	0.2416 0.2441	0.2165 0.2573	0.2296	0.2301	0.2461	Ave		0.2379			0.1000	5.6		20.0			
Dibromomethane	0.1493 0.1560	0.1592 0.1616	0.1560	0.1532	0.1682	Ave		0.1576				3.9		20.0			
1,4-Dioxane	+++++ 0.0025	0.0024 0.0026	0.0033	0.0032	0.0029	Ave		0.0028				12.5		20.0			
Dichlorobromomethane	0.3534 0.3531	0.3323 0.3685	0.3311	0.3362	0.3630	Ave		0.3482			0.1500	4.3		20.0			
2-Chloroethyl vinyl ether	0.1373 0.1425	0.1256 0.1486	0.1438	0.1612	0.1638	Ave		0.1461				9.1		20.0			
cis-1,3-Dichloropropene	0.3887 0.4181	0.3658 0.4399	0.3933	0.4108	0.4441	Ave		0.4087			0.1500	6.9		20.0			
4-Methyl-2-pentanone (MIBK)	0.2161 0.1929	0.1899 0.2082	0.2130	0.2551	0.2445	Ave		0.2171			0.0500	11.3		20.0			
Toluene	1.5838 1.5175	1.4766 1.5941	1.4414	1.4719	1.5221	Ave		1.5154			0.4000	3.8		20.0			
trans-1,3-Dichloropropene	0.5105 0.5390	0.4963 0.5662	0.5134	0.5482	0.5721	Ave		0.5351			0.1000	5.5		20.0			
Ethyl methacrylate	0.4385 0.4181	0.4172 0.4473	0.4439	0.4724	0.4723	Ave		0.4442				5.1		20.0			
1,1,2-Trichloroethane	0.3262 0.2889	0.2802 0.2975	0.2922	0.2984	0.3099	Ave		0.2990			0.1000	5.0		20.0			
Tetrachloroethene	0.2366 0.2740	0.2453 0.2610	0.2471	0.2614	0.2674	Ave		0.2561			0.1500	5.2		20.0			
1,3-Dichloropropane	0.5297 0.5316	0.4688 0.5640	0.5189	0.5461	0.5702	Ave		0.5328				6.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1891 +++++	0.1992 +++++	0.2068	0.2477	0.2233	Ave		0.2132			0.0500	10.8		20.0			
Chlorodibromomethane	0.3253 0.3371	0.3144 0.3437	0.3141	0.3364	0.3545	Ave		0.3322				4.5		20.0			
Ethylene Dibromide	0.2899 0.3001	0.2869 0.3047	0.3058	0.3214	0.3284	Ave		0.3053				5.0		20.0			
Chlorobenzene	0.9313 0.9686	0.9352 0.9831	0.9077	0.9226	0.9777	Ave		0.9466			0.3000	3.1		20.0			
1,1,1,2-Tetrachloroethane	0.3028 0.3531	0.3233 0.3544	0.3278	0.3271	0.3563	Ave		0.3350				6.0		20.0			
Ethylbenzene	0.4898 0.5235	0.4800 0.5365	0.4907	0.4842	0.5129	Ave		0.5025				4.3		20.0			
m-Xylene & p-Xylene	0.6103 0.6382	0.5906 0.6609	0.6077	0.5917	0.6327	Ave		0.6189				4.2		20.0			
o-Xylene	0.6493 0.6572	0.6151 0.6713	0.6138	0.5976	0.6418	Ave		0.6351				4.2		20.0			
Styrene	1.0267 1.1155	0.9778 1.1509	1.0177	1.0285	1.1035	Ave		1.0601			0.3000	6.0		20.0			
Bromoform	0.2067 0.2134	0.1857 0.2063	0.2063	0.2245	0.2369	Ave		0.2114			0.1000	7.6		20.0			
Isopropylbenzene	1.5602 1.5123	1.4328 1.5483	1.3876	1.3633	1.4663	Ave		1.4672			0.1000	5.2		20.0			
1,1,2,2-Tetrachloroethane	0.7192 0.7261	0.7421 0.7927	0.7618	0.8458	0.8137	Ave		0.7716			0.3000	6.2		20.0			
Bromobenzene	0.6653 0.7216	0.6602 0.7261	0.6817	0.7192	0.7379	Ave		0.7017				4.5		20.0			
1,2,3-Trichloropropane	+++++ 0.2395	0.2290 0.2541	0.2447	0.2934	0.2663	Ave		0.2545				9.0		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2424	0.2326 0.2756	0.2522	0.2918	0.2810	Ave		0.2626				9.0		20.0			
N-Propylbenzene	0.6968 0.7256	0.6975 0.7600	0.6711	0.6945	0.7204	Ave		0.7094				4.0		20.0			
2-Chlorotoluene	0.6114 0.6588	0.6233 0.7165	0.6429	0.6489	0.6767	Ave		0.6541				5.4		20.0			
1,3,5-Trimethylbenzene	2.1642 2.2609	2.1661 2.4337	2.0464	2.1142	2.2254	Ave		2.2016				5.6		20.0			
4-Chlorotoluene	0.7148 0.6961	0.6491 0.7484	0.6484	0.6712	0.7001	Ave		0.6897				5.3		20.0			
tert-Butylbenzene	2.1166 2.0970	1.9716 2.2086	1.7284	1.9341	2.0555	Ave		2.0160				7.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.5261 2.3839	2.5050 2.5794	2.1659	2.2246	2.3536	Ave		2.3912				6.5		20.0			
sec-Butylbenzene	2.6707 2.4682	2.4790 2.5875	2.1588	2.2445	2.3326	Ave		2.4202				7.6		20.0			
1,3-Dichlorobenzene	1.4201 1.3091	1.4203 1.3460	1.2305	1.2504	1.3236	Ave		1.3286			0.6000	5.6		20.0			
4-Isopropyltoluene	2.3710 2.1795	2.1331 2.2315	1.9109	1.9394	2.1043	Ave		2.1242				7.6		20.0			
1,4-Dichlorobenzene	1.5158 1.3494	1.4115 1.3877	1.2825	1.3097	1.3638	Ave		1.3743			0.5000	5.5		20.0			
n-Butylbenzene	2.1606 1.8432	2.0536 1.9256	1.6133	1.6141	1.7721	Ave		1.8547				11.3		20.0			
1,2-Dichlorobenzene	1.3525 1.2872	1.2464 1.3769	1.2432	1.2686	1.3231	Ave		1.2997			0.4000	4.0		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1630	0.1776 0.1684	0.1837	0.2218	0.2040	Ave		0.1864			0.0500	12.1		20.0			
1,2,4-Trichlorobenzene	0.8519 0.7125	0.8964 0.7465	0.7141	0.6988	0.7615	Ave		0.7688			0.2000	9.9		20.0			
Hexachlorobutadiene	+++++ 0.2883	0.7015 0.2817	0.2846	0.2548	0.2908	Lin1	0.3943	0.2698				10.8			0.9960		0.9900
Naphthalene	2.6194 2.2452	2.6576 2.3697	2.4244	2.6510	2.6690	Ave		2.5195				6.8		20.0			
1,2,3-Trichlorobenzene	0.7920 0.6421	0.7969 0.6663	0.6642	0.6473	0.6932	Ave		0.7003				9.5		20.0			
Dibromofluoromethane (Surr)	0.2216 0.2374	0.2113 0.2381	0.2330	0.2173	0.2452	Ave		0.2291				5.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3077 0.3108	0.2847 0.3208	0.3234	0.2948	0.3253	Ave		0.3096				4.9		20.0			
Toluene-d8 (Surr)	1.1919 1.3183	1.2747 1.3532	1.2934	1.2455	1.2993	Ave		1.2824				4.1		20.0			
4-Bromofluorobenzene (Surr)	0.5341 0.4677	0.4799 0.4827	0.4571	0.4400	0.4641	Ave		0.4751				6.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-323374/15	UXM10703.D
Level 2	STD8260 240-323374/14	UXM10702.D
Level 3	STD8260 240-323374/13	UXM10701.D
Level 4	ICIS 240-323374/12	UXM10700.D
Level 5	STD8260 240-323374/11	UXM10699.D
Level 6	STD8260 240-323374/10	UXM10698.D
Level 7	STD8260 240-323374/9	UXM10697.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	10471 756810	14559 967117	190941	412656	501450	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	9318 681287	16262 980285	169014	336491	523629	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	8248 761832	15916 1006532	181069	389224	542061	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	8075 697395	16722 870167	166802	358251	450478	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	+++++ 420034	11232 680126	103180	198680	319440	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	6480 473499	10764 733458	113066	231292	352195	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	14351 966569	28395 1478332	238717	441051	706446	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Ave	9642 870458	17112 1167072	200214	422555	556227	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	6573 491651	10948 760565	116586	255302	401740	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	9644 477942	15584 737000	137608	292805	412381	2.50 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	7658 608878	13955 914957	141698	320058	470883	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	4577 477542	8728 678154	106364	223378	326749	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	5225 102797	7232 160249	33832	67806	92319	1.00 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	10342 912650	21815 1483112	218783	437068	718917	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	22709 1889741	40719 2952137	420259	1071711	1695009	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	+++++ 955354	30064 1493790	212953	452741	731804	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	+++++ 852984	27090 1324304	221152	555662	790893	+++++ 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Ave	+++++ 621728	17824 1001067	147328	306090	499595	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
2-Methyl-2-propanol	FB	Ave	5717 +++++	12001 +++++	146287	336655	443329	5.00 +++++	10.0 +++++	100	200	300
Acrylonitrile	FB	Ave	27201 1988261	47279 3360319	546534	1243505	1826449	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	8025 616452	15022 974131	148348	307159	474970	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	21833 1702779	39150 2837916	437615	938387	1460104	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	+++++ 650730	16545 821969	152171	296821	402472	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	11475 1016563	23910 1639739	240635	488771	780299	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	12762 942617	20659 1520225	230819	518443	809877	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	8147 667409	16663 1074920	160099	328708	515465	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1644 +++++	3114 +++++	36373	89963	122832	1.00 +++++	2.00 +++++	20.0	40.0	60.0
2,2-Dichloropropane	FB	Ave	+++++ 137688	3134 214399	32716	56477	94527	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chlorobromomethane	FB	Ave	3430 304580	7326 474734	72679	150473	241790	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	5010 +++++	11819 +++++	81520	195356	274526	1.00 +++++	2.00 +++++	20.0	40.0	60.0
Chloroform	FB	Ave	12982 1012567	24090 1612050	241008	500231	800061	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	11023 831948	18458 1274924	189403	354795	579884	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	12092 921222	18822 1316905	208319	421629	603767	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	10072 840386	17828 1303835	194081	416030	637856	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	8286 695643	13660 1008826	160538	317583	493305	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	5728 +++++	9765 +++++	107627	276394	377528	12.5 +++++	25.0 +++++	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	28935 2398623	55594 3847448	555581	1188346	1867278	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	10009 840853	19109 1338240	197201	421722	672279	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Ave	45271 374115	54864 390778	110752	188373	208395	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	7662 626566	14771 932830	150065	310755	489515	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	11645 877511	19705 1121545	193778	388681	521953	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	6847 540596	12535 876179	128302	270747	419916	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	4232 345596	9213 550500	87172	180252	286934	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 112209	2799 177109	36671	74210	98809	+++++ 800	20.0 1200	200	400	600
Dichlorobromomethane	FB	Ave	10016 782144	19238 1255080	185011	395511	619437	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	7780 631435	14547 1012266	160710	379407	558973	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	11015 926202	21175 1498330	219753	483251	757779	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	12248 854627	21989 1418478	238068	600206	834221	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	31851 2388224	59306 3820900	567441	1212123	1886452	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10266 848170	19932 1357159	202102	451468	709031	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	8818 657975	16758 1072200	174770	389008	585322	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6560 454692	11254 712997	115032	245746	384058	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	4759 431237	9854 625571	97269	215280	331465	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	10653 836596	18829 1351730	204270	449742	706756	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	7607 +++++	15999 +++++	162809	407988	553426	1.00 +++++	2.00 +++++	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	6541 530522	12629 823754	123671	277061	439358	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylene Dibromide	CBNZ d5	Ave	5829 472264	11523 730319	120401	264664	407050	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	18728 1524381	37559 2356263	357330	759787	1211816	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6090 555636	12983 849326	129051	269363	441618	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	9849 823890	19280 1285996	193180	398742	635741	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12273 1004353	23721 1584012	239244	487234	784155	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	13058 1034186	24703 1609047	241633	492125	795424	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	20648 1755433	39272 2758573	400653	846940	1367669	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	4157 335822	7457 494365	81236	184891	293669	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	31375 2379914	57548 3711005	546256	1122660	1817323	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	8046 622457	16660 997510	163129	360098	543874	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	7443 618574	14823 913676	145993	306204	493178	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	+++++ 205358	5142 319808	52399	124916	178001	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 207793	5222 346828	54001	124246	187838	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	7796 622038	15660 956307	143716	295673	481506	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	6840 564765	13994 901687	137666	276261	452294	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24212 1938253	48631 3062471	438219	900095	1487353	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	7997 596765	14572 941732	138856	285757	467928	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	23680 1797696	44265 2779205	370122	823407	1373831	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	28261 2043652	56239 3245854	463821	947096	1573064	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	29878 2115947	55656 3256097	462297	955571	1559016	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	15887 1122243	31886 1693835	263512	532326	884654	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	26526 1868413	47889 2808036	409208	825653	1406442	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	16958 1156773	31689 1746238	274646	557600	911532	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	24172 1580117	46106 2423177	345479	687195	1184391	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	15131 1103463	27983 1732694	266231	540093	884297	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 139743	3987 211852	39337	94435	136373	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9531 610818	20125 939369	152924	297511	508937	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Lin1	+++++ 247122	15749 354438	60937	108472	194360	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	29304 1924720	59665 2982038	519179	1128622	1783875	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	8860 550465	17890 838489	142239	275565	463304	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	6281 525811	12229 811062	130213	255657	418361	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8719 688348	16481 1092706	180682	346835	555128	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	23970 2074711	51197 3243443	509195	1025706	1610389	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10740 736092	19274 1156845	179963	362349	575261	0.500 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 10:52 Calibration End Date: 04/20/2018 13:14 Calibration ID: 44812

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-323374/15	UXM10703.D
Level 2	STD8260 240-323374/14	UXM10702.D
Level 3	STD8260 240-323374/13	UXM10701.D
Level 4	ICIS 240-323374/12	UXM10700.D
Level 5	STD8260 240-323374/11	UXM10699.D
Level 6	STD8260 240-323374/10	UXM10698.D
Level 7	STD8260 240-323374/9	UXM10697.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	-24.4						50					
Hexachlorobutadiene	+++++	13.9						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 14:49 Calibration End Date: 04/20/2018 16:46 Calibration ID: 44816

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-323374/24	UXM10712.D
Level 2	STDA9 240-323374/23	UXM10711.D
Level 3	STDA9 240-323374/22	UXM10710.D
Level 4	STDA9 240-323374/21	UXM10709.D
Level 5	STDA9 240-323374/20	UXM10708.D
Level 6	STDA9 240-323374/19	UXM10707.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	+++++ 0.0258	0.0511	0.0340	0.0343	0.0324	Ave		0.0355				26.3	*	20.0			
Diisopropyl ether	0.2435 0.2446	0.2732	0.2477	0.2708	0.2628	Ave		0.2571				5.2		20.0			
2-Chloro-1,3-butadiene	0.4247 0.4216	0.4137	0.4176	0.4628	0.4610	Ave		0.4336				5.1		20.0			
Ethyl tert-butyl ether	0.7739 0.7894	0.8329	0.8159	0.8924	0.8783	Ave		0.8305				5.7		20.0			
Ethyl acetate	0.2581 0.2275	0.2039	0.1913	0.2159	0.2695	Ave		0.2277				13.5		20.0			
Propionitrile	0.0319 0.0373	0.0353	0.0337	0.0382	0.0450	Ave		0.0369				12.4		20.0			
Methacrylonitrile	0.1462 0.1592	0.1503	0.1416	0.1564	0.1809	Ave		0.1558				8.9		20.0			
Tert-amyl methyl ether	0.8133 0.8186	0.8488	0.8372	0.9240	0.9008	Ave		0.8571				5.3		20.0			
n-Butanol	0.0074 0.0069	0.0070	0.0063	0.0073	0.0094	Ave		0.0074				14.6		20.0			
Ethyl acrylate	0.2931 0.2970	0.2705	0.2501	0.2764	0.3487	Ave		0.2893				11.6		20.0			
Methyl methacrylate	0.2128 0.2058	0.2297	0.1740	0.1974	0.2433	Ave		0.2105				11.6		20.0			
2-Nitropropane	+++++ 0.0838	0.1114	0.0765	0.0832	0.0999	Ave		0.0910				15.7		20.0			
n-Butyl acetate	0.4421 0.3344	0.3785	0.2914	0.3367	0.3985	Ave		0.3636				14.8		20.0			
1-Chlorohexane	+++++ 0.3783	0.4632	0.3669	0.3976	0.4208	Ave		0.4054				9.4		20.0			
Cyclohexanone	+++++ 0.0226	0.0318	0.0220	0.0238	0.0304	Ave		0.0261				17.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 14:49 Calibration End Date: 04/20/2018 16:46 Calibration ID: 44816

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2105 0.2293	0.2343	0.2318	0.2500	0.2448	Ave		0.2335				5.9		20.0			
1,2,3-Trimethylbenzene	2.6596 2.3926	2.6486	2.4228	2.6675	2.6335	Ave		2.5707				4.9		20.0			
Benzyl chloride	0.3848 0.4338	0.3997	0.3958	0.4474	0.5157	Ave		0.4295				11.3		20.0			
1,3,5-Trichlorobenzene	0.9465 0.7163	1.0615	0.7484	0.8326	0.7891	Ave		0.8491				15.5		20.0			
2-Methylnaphthalene	+++++ 1.1178	2.2832	1.2345	1.3610	1.2827	Lin1	2.3257	1.1787				9.1			0.9940		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 14:49 Calibration End Date: 04/20/2018 16:46 Calibration ID: 44816

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-323374/24	UXM10712.D
Level 2	STDA9 240-323374/23	UXM10711.D
Level 3	STDA9 240-323374/22	UXM10710.D
Level 4	STDA9 240-323374/21	UXM10709.D
Level 5	STDA9 240-323374/20	UXM10708.D
Level 6	STDA9 240-323374/19	UXM10707.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	+++++ 885069	26990	183458	365602	702749	+++++ 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	6650 837800	14431	133791	288837	570469	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	11597 1444050	21856	225559	493674	1000554	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	21132 2703565	44000	440744	951927	1906302	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	14094 1558640	21541	206719	460635	1169770	1.00 120	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	8715 1276755	18638	181932	407313	976297	5.00 600	10.0	100	200	400
Methacrylonitrile	FB	Ave	39917 5452791	79385	764743	1667903	3926456	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	22210 2803664	44836	452265	985599	1955092	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	5027 588923	9290	84895	193800	512123	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	8003 1017056	14287	135078	294812	756707	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	11624 1410024	24272	188010	421039	1056092	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	+++++ 574098	11767	82684	177466	433837	+++++ 120	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	12072 1145371	19994	157392	359131	864904	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	+++++ 917996	17731	139115	296687	652215	+++++ 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 294957	6862	47414	99236	243640	+++++ 600	10.0	100	200	400
Pentachloroethane	CBNZ d5	Ave	8246 1113073	17940	175796	373124	759050	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 14:49 Calibration End Date: 04/20/2018 16:46 Calibration ID: 44816

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	29116 3124197	57145	522140	1113440	2109243	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	4213 566383	8623	85297	186768	413058	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	10362 935323	22903	161291	347547	632048	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	+++++ 2919076	98521	532105	1136233	2054732	+++++ 120	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 323374

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2018 14:49 Calibration End Date: 04/20/2018 16:46 Calibration ID: 44816

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-323374/24	UXM10712.D
Level 2	STDA9 240-323374/23	UXM10711.D
Level 3	STDA9 240-323374/22	UXM10710.D
Level 4	STDA9 240-323374/21	UXM10709.D
Level 5	STDA9 240-323374/20	UXM10708.D
Level 6	STDA9 240-323374/19	UXM10707.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
2-Methylnaphthalene	+++++	-5.0						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-323374/25 Calibration Date: 04/20/2018 17:09

Instrument ID: A3UX16 Calib Start Date: 04/20/2018 14:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2018 16:46

Lab File ID: UXM10713.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0355	0.0301		0.169	0.200	-15.3	30.0
Diisopropyl ether	Ave	0.2571	0.2469		0.0192	0.0200	-4.0	30.0
2-Chloro-1,3-butadiene	Ave	0.4336	0.4025		0.0186	0.0200	-7.2	30.0
Ethyl tert-butyl ether	Ave	0.8305	0.7882		0.0190	0.0200	-5.1	30.0
Ethyl acetate	Ave	0.2277	0.1869		0.0328	0.0400	-17.9	50.0
Propionitrile	Ave	0.0369	0.0323		0.175	0.200	-12.4	30.0
Methacrylonitrile	Ave	0.1558	0.1356		0.174	0.200	-13.0	30.0
Tert-amyl methyl ether	Ave	0.8571	0.8145		0.0190	0.0200	-5.0	30.0
n-Butanol	Ave	0.0074	0.0062		0.419	0.500	-16.2	30.0
Ethyl acrylate	Ave	0.2893	0.2527		0.0175	0.0200	-12.6	30.0
Methyl methacrylate	Ave	0.2105	0.1816		0.0345	0.0400	-13.7	30.0
2-Nitropropane	Ave	0.0910	0.0760		0.0334	0.0400	-16.4	30.0
n-Butyl acetate	Ave	0.3636	0.3019		0.0166	0.0200	-17.0	30.0
1-Chlorohexane	Ave	0.4054	0.3610		0.0178	0.0200	-10.9	30.0
Cyclohexanone	Ave	0.0261	0.0207		0.159	0.200	-20.6	30.0
Pentachloroethane	Ave	0.2335	0.2259		0.0387	0.0400	-3.2	30.0
1,2,3-Trimethylbenzene	Ave	2.571	2.469		0.0192	0.0200	-4.0	30.0
Benzyl chloride	Ave	0.4295	0.3900		0.0182	0.0200	-9.2	30.0
1,3,5-Trichlorobenzene	Ave	0.8491	0.7058		0.0166	0.0200	-16.9	30.0
2-Methylnaphthalene	Lin1		0.9553		0.0304	0.0400	-23.9	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB5628.D BFB Injection Date: 05/08/2018

Instrument ID: A3UX16 BFB Injection Time: 17:40

Analysis Batch No.: 325908

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	48.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	69.0	
175	5.0 - 9.0 % of mass 174	5.8	(8.3) 1
176	95.0 - 101.0 % of mass 174	67.0	(97.2) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-325908/9	UXM11108.D	05/08/2018	20:37
	STD8260 240-325908/10	UXM11109.D	05/08/2018	21:01
	STD8260 240-325908/11	UXM11110.D	05/08/2018	21:25
	ICIS 240-325908/12	UXM11111.D	05/08/2018	21:49
	STD8260 240-325908/13	UXM11112.D	05/08/2018	22:12
	STD8260 240-325908/14	UXM11113.D	05/08/2018	22:35
	STD8260 240-325908/15	UXM11114.D	05/08/2018	22:59
	ICV 240-325908/16	UXM11115.D	05/08/2018	23:22

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-325908/15	UXM11114.D
Level 2	STD8260 240-325908/14	UXM11113.D
Level 3	STD8260 240-325908/13	UXM11112.D
Level 4	ICIS 240-325908/12	UXM11111.D
Level 5	STD8260 240-325908/11	UXM11110.D
Level 6	STD8260 240-325908/10	UXM11109.D
Level 7	STD8260 240-325908/9	UXM11108.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.3275	0.1935 0.2999	0.2331	0.2188	0.2937	Ave		0.2611			0.1000	20.3	*	20.0			
Chloromethane	0.3146 0.2736	0.3111 0.2534	0.2578	0.2646	0.2745	Ave		0.2785			0.1000	8.9		20.0			
Vinyl chloride	0.1663 0.3239	0.2703 0.3115	0.2829	0.2965	0.3104	Ave		0.2803			0.1000	19.1		20.0			
Butadiene	0.2090 0.2993	0.2347 0.2893	0.2476	0.2345	0.2787	Ave		0.2562				13.0		20.0			
Bromomethane	0.2041 0.2445	0.2446 0.2453	0.2302	0.2279	0.2343	Ave		0.2330			0.0500	6.3		20.0			
Chloroethane	0.1742 0.2169	0.2180 0.2153	0.1895	0.2001	0.2071	Ave		0.2030			0.0500	8.1		20.0			
Dichlorofluoromethane	0.4999 0.5018	0.4999 0.4776	0.4528	0.4702	0.4794	Ave		0.4831				3.8		20.0			
Trichlorofluoromethane	0.1775 0.4648	0.3480 0.4631	0.3762	0.3597	0.4282	Lin1	-0.152	0.4438			0.1000	12.1			0.9930		0.9900
Ethyl ether	0.2201 0.2309	0.2225 0.2229	0.2119	0.2290	0.2297	Ave		0.2239				3.0		20.0			
Acrolein	0.0347 0.0376	0.0405 0.0365	0.0371	0.0392	0.0379	Ave		0.0377				5.0		20.0			
1,1-Dichloroethene	0.2535 0.2742	0.2436 0.2690	0.2551	0.2506	0.2661	Ave		0.2589			0.1000	4.3		20.0			
1,1,2-Trichlorotrifluoroethane	0.1291 0.2289	0.1921 0.2205	0.1961	0.1594	0.2160	Ave		0.1917			0.0500	18.8		20.0			
Acetone	+++++ 0.0249	0.0667 0.0246	0.0298	0.0285	0.0265	Lin1	0.0887	0.0244			0.0100	6.5			0.9980		0.9900
Iodomethane	0.4303 0.5256	0.4818 0.5038	0.4927	0.4896	0.5067	Ave		0.4901				6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7467 0.8186	0.7548 0.7961	0.7284	0.9262	0.6542	Ave		0.7750			0.1000	10.9		20.0			
3-Chloro-1-propene	0.4620 0.3719	0.4292 0.3591	0.3384	0.3423	0.3641	Ave		0.3810				12.2		20.0			
Methyl acetate	0.2236 0.1953	0.2058 0.1906	0.2021	0.2136	0.2006	Ave		0.2045			0.1000	5.5		20.0			
Methylene Chloride	+++++ 0.3123	0.3512 0.2993	0.2927	0.2932	0.2952	Ave		0.3073			0.1000	7.4		20.0			
tert-Butyl alcohol	0.0293 0.0269	0.0323 0.0270	0.0322	0.0329	0.0291	Ave		0.0300				8.5		20.0			
Acrylonitrile	0.0872 0.1020	0.0986 0.1005	0.1030	0.1072	0.1026	Ave		0.1002				6.3		20.0			
trans-1,2-Dichloroethene	0.2514 0.3195	0.2908 0.3035	0.2893	0.2859	0.2972	Ave		0.2911			0.1000	7.2		20.0			
Methyl tert-butyl ether	0.7996 0.8990	0.8508 0.8838	0.8655	0.8889	0.8834	Ave		0.8673			0.1000	3.9		20.0			
Hexane	0.1923 0.2208	0.2280 0.2315	0.1833	0.1606	0.2144	Ave		0.2044				12.9		20.0			
1,1-Dichloroethane	0.3761 0.4701	0.4644 0.4583	0.4247	0.4395	0.4524	Ave		0.4408			0.2000	7.4		20.0			
Vinyl acetate	0.4376 0.4461	0.3978 0.4422	0.4220	0.4385	0.4446	Ave		0.4327				4.0		20.0			
cis-1,2-Dichloroethene	0.2891 0.3461	0.3298 0.3330	0.3171	0.3203	0.3310	Ave		0.3238			0.1000	5.5		20.0			
2,2-Dichloropropane	+++++ 0.0896	0.0790 0.0840	0.0759	0.0755	0.0779	Ave		0.0803				6.8		20.0			
2-Butanone (MEK)	0.0312 0.0354	0.0390 0.0351	0.0377	0.0394	0.0370	Ave		0.0364			0.0100	7.7		20.0			
Bromochloromethane	0.1271 0.1652	0.1491 0.1613	0.1525	0.1568	0.1615	Ave		0.1533				8.4		20.0			
Tetrahydrofuran	0.0624 0.0685	0.0691 0.0680	0.0749	0.0783	0.0725	Ave		0.0706				7.4		20.0			
Chloroform	0.4930 0.5129	0.4931 0.4925	0.4783	0.4692	0.4910	Ave		0.4900			0.2000	2.8		20.0			
1,1,1-Trichloroethane	0.3795 0.4499	0.3948 0.4364	0.4056	0.4038	0.4347	Ave		0.4150			0.1000	6.2		20.0			
Cyclohexane	0.3251 0.3519	0.3326 0.3540	0.3017	0.2521	0.3343	Ave		0.3217			0.1000	11.0		20.0			
1,1-Dichloropropene	0.3679 0.3961	0.3923 0.3807	0.3609	0.3455	0.3812	Ave		0.3749				4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3273 0.3920	0.3257 0.3810	0.3356	0.3251	0.3676	Ave		0.3506			0.1000	8.2		20.0			
Isobutyl alcohol	0.0053 0.0074	0.0079 0.0076	0.0082	0.0087	0.0082	Ave		0.0076				14.4		20.0			
Benzene	1.0772 1.1808	1.1115 1.1446	1.1077	1.1172	1.1497	Ave		1.1270			0.5000	3.0		20.0			
1,2-Dichloroethane	0.3601 0.4069	0.3892 0.3940	0.3868	0.3842	0.3990	Ave		0.3886			0.1000	3.8		20.0			
n-Heptane	+++++ 0.1096	0.7608 0.1284	0.1329	0.0987	0.1086	Qua	0.7161	0.0451	0.0011895			5.9			0.9990		0.9900
Trichloroethene	0.3283 0.3376	0.3363 0.3269	0.3194	0.3208	0.3290	Ave		0.3283			0.1500	2.1		20.0			
Methylcyclohexane	0.3382 0.3366	0.3600 0.3560	0.2827	0.2377	0.3133	Ave		0.3178			0.1000	13.9		20.0			
1,2-Dichloropropane	0.1867 0.2491	0.2452 0.2473	0.2333	0.2356	0.2412	Ave		0.2341			0.1000	9.3		20.0			
Dibromomethane	0.1552 0.1817	0.1769 0.1755	0.1734	0.1756	0.1760	Ave		0.1735				4.9		20.0			
1,4-Dioxane	+++++ 0.0032	0.0029 0.0037	0.0043	0.0029	0.0032	Ave		0.0034				15.8		20.0			
Bromodichloromethane	0.3112 0.3790	0.3667 0.3770	0.3441	0.3610	0.3663	Ave		0.3579			0.1500	6.6		20.0			
2-Chloroethyl vinyl ether	0.1260 0.1621	0.1343 0.1623	0.1535	0.1663	0.1643	Ave		0.1527				10.5		20.0			
cis-1,3-Dichloropropene	0.3538 0.4446	0.3673 0.4382	0.3936	0.4188	0.4324	Ave		0.4070			0.1500	8.8		20.0			
4-Methyl-2-pentanone (MIBK)	0.2114 0.2311	0.2135 0.2271	0.2393	0.2557	0.2346	Ave		0.2304			0.0500	6.6		20.0			
Toluene	1.4703 1.5197	1.4596 1.4925	1.4457	1.4486	1.4997	Ave		1.4766			0.4000	1.9		20.0			
trans-1,3-Dichloropropene	0.4087 0.5000	0.3862 0.5025	0.4482	0.4894	0.4955	Ave		0.4615			0.1000	10.4		20.0			
Ethyl methacrylate	0.4282 0.4645	0.4261 0.4604	0.4403	0.4613	0.4674	Ave		0.4497				3.9		20.0			
1,1,2-Trichloroethane	0.2674 0.3009	0.3241 0.2931	0.2917	0.2990	0.3042	Ave		0.2972			0.1000	5.7		20.0			
Tetrachloroethene	0.2576 0.2912	0.2598 0.2905	0.2700	0.2687	0.2898	Ave		0.2754			0.1500	5.4		20.0			
1,3-Dichloropropane	0.4658 0.5297	0.5186 0.5265	0.5003	0.5354	0.5365	Ave		0.5161				4.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1653 0.1935	0.1853 0.1913	0.1980	0.2198	0.2020	Ave		0.1936			0.0500	8.6		20.0			
Chlorodibromomethane	0.2837 0.3450	0.2860 0.3469	0.3166	0.3381	0.3455	Ave		0.3231				8.7		20.0			
1,2-Dibromoethane	0.2629 0.3186	0.2930 0.3155	0.3217	0.3295	0.3231	Ave		0.3092				7.6		20.0			
Chlorobenzene	0.9577 1.0124	1.0072 1.0000	0.9552	0.9652	0.9932	Ave		0.9844			0.3000	2.5		20.0			
1,1,1,2-Tetrachloroethane	0.2884 0.3759	0.2948 0.3628	0.3450	0.3439	0.3549	Ave		0.3379				9.9		20.0			
Ethylbenzene	0.5283 0.5426	0.4816 0.5321	0.4941	0.4909	0.5262	Ave		0.5137				4.7		20.0			
m-Xylene & p-Xylene	0.6083 0.6638	0.6782 0.6597	0.6242	0.6037	0.6387	Ave		0.6395				4.5		20.0			
o-Xylene	0.6427 0.6735	0.6629 0.6645	0.6241	0.6192	0.6513	Ave		0.6483				3.2		20.0			
Styrene	0.9718 1.1374	1.0257 1.1192	1.0328	1.0606	1.0958	Ave		1.0633			0.3000	5.5		20.0			
Bromoform	+++++ 0.2277	0.1702 0.2306	0.2007	0.2186	0.2224	Ave		0.2117			0.1000	10.8		20.0			
Isopropylbenzene	1.3557 1.5584	1.5145 1.5661	1.4344	1.3903	1.4868	Ave		1.4723			0.1000	5.5		20.0			
1,1,2,2-Tetrachloroethane	0.5651 0.6951	0.6057 0.6981	0.6971	0.7317	0.7184	Ave		0.6730			0.3000	9.3		20.0			
Bromobenzene	0.5687 0.7430	0.7257 0.7501	0.7032	0.7172	0.7398	Ave		0.7068				8.9		20.0			
1,2,3-Trichloropropane	0.2584 0.2534	0.2425 0.2495	0.2622	0.2723	0.2627	Ave		0.2573				3.8		20.0			
trans-1,4-Dichloro-2-butene	0.1384 0.2076	0.1371 0.2116	0.1883	0.2151	0.2091	Ave		0.1868				18.5		20.0			
N-Propylbenzene	0.5741 0.7086	0.7083 0.7524	0.6603	0.6557	0.6895	Ave		0.6784				8.3		20.0			
2-Chlorotoluene	0.6341 0.6715	0.6307 0.6830	0.6336	0.6420	0.6552	Ave		0.6500				3.2		20.0			
1,3,5-Trimethylbenzene	2.1441 2.1524	2.0006 2.2513	1.9747	1.9612	2.1147	Ave		2.0856				5.2		20.0			
4-Chlorotoluene	0.6391 0.6898	0.6622 0.7105	0.6716	0.6700	0.6848	Ave		0.6754				3.3		20.0			
tert-Butylbenzene	1.8762 2.0342	1.9510 2.1443	1.8884	1.7163	1.9979	Ave		1.9440				7.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.0915 2.2550	2.1942 2.3616	2.0756	2.1097	2.2414	Ave		2.1899				4.8		20.0			
sec-Butylbenzene	2.2933 2.2758	2.3614 2.4528	2.0472	2.0468	2.1942	Ave		2.2388				6.8		20.0			
1,3-Dichlorobenzene	1.2604 1.3394	1.4252 1.3623	1.2726	1.2605	1.3023	Ave		1.3175			0.6000	4.7		20.0			
4-Isopropyltoluene	1.9796 2.0920	2.1947 2.2149	1.9345	1.8943	2.0475	Ave		2.0511				6.1		20.0			
1,4-Dichlorobenzene	1.5433 1.3615	1.4503 1.3947	1.3420	1.2988	1.3492	Ave		1.3914			0.5000	5.9		20.0			
n-Butylbenzene	1.8504 1.6454	1.8664 1.7658	1.4949	1.4408	1.6025	Ave		1.6666				10.1		20.0			
1,2-Dichlorobenzene	1.3865 1.3256	1.3522 1.3508	1.2852	1.2752	1.2991	Ave		1.3249			0.4000	3.1		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1679	0.1529 0.1802	0.1695	0.1865	0.1774	Ave		0.1724			0.0500	6.8		20.0			
1,2,4-Trichlorobenzene	0.8853 0.7761	0.9080 0.8453	0.7373	0.7326	0.7656	Ave		0.8072			0.2000	8.9		20.0			
Hexachlorobutadiene	+++++ 0.3200	0.6548 0.2912	0.2938	0.2698	0.3063	Lin1	0.3298	0.2886				10.9			0.9950		0.9900
Naphthalene	2.3866 2.4517	2.5268 2.6240	2.4828	2.6083	2.5578	Ave		2.5197				3.4		20.0			
1,2,3-Trichlorobenzene	0.8140 0.7252	0.9030 0.7964	0.6912	0.7092	0.7303	Ave		0.7670				9.8		20.0			
Dibromofluoromethane (Surr)	0.2289 0.2741	0.2230 0.2674	0.2462	0.2620	0.2603	Ave		0.2517				7.8		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2915 0.3392	0.3259 0.3280	0.3133	0.3223	0.3436	Ave		0.3234				5.4		20.0			
Toluene-d8 (Surr)	1.1398 1.3164	1.1807 1.2908	1.2038	1.2452	1.2929	Ave		1.2385				5.3		20.0			
4-Bromofluorobenzene (Surr)	0.4462 0.4685	0.4553 0.4626	0.4342	0.4481	0.4584	Ave		0.4533				2.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-325908/15	UXM11114.D
Level 2	STD8260 240-325908/14	UXM11113.D
Level 3	STD8260 240-325908/13	UXM11112.D
Level 4	ICIS 240-325908/12	UXM11111.D
Level 5	STD8260 240-325908/11	UXM11110.D
Level 6	STD8260 240-325908/10	UXM11109.D
Level 7	STD8260 240-325908/9	UXM11108.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 656227	9439 962381	122249	230225	465823	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	7582 548178	15170 813197	135211	278456	435295	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	4009 648989	13183 999683	148394	311979	492296	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	5038 599702	11444 928570	129871	246802	442052	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	4920 489836	11931 787332	120731	239835	371564	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	4198 434554	10634 691030	99414	210605	328505	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	12049 1005575	24379 1532911	237503	494756	760392	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Lin1	4278 931410	16971 1486467	197323	378471	679077	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	5305 462602	10850 715377	111133	240976	364393	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	4186 376322	9888 585666	97414	206305	300810	2.50 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	6111 549534	11878 863464	133805	263657	422108	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	3111 458766	9370 707809	102860	167745	342666	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	+++++ 99749	6503 157743	31258	60012	83920	+++++ 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	10372 1053169	23495 1617030	258407	515159	803591	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	17999 1640292	36812 2555134	382036	974692	1037671	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	11135 745271	20930 1152602	177481	360236	577472	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	10779 782575	20075 1223399	212009	449639	636277	1.00 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Ave	+++++ 625719	17126 960459	153540	308512	468224	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butyl alcohol	FB	Ave	7051 538774	15737 867115	169047	346525	461474	5.00 400	10.0 600	100	200	300
Acrylonitrile	FB	Ave	21028 2044791	48105 3225353	540036	1127828	1627546	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	6059 640181	14184 973971	151748	300876	471396	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	19274 1801433	41491 2836410	453949	935364	1401193	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	4635 442392	11119 742950	96152	169000	339982	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	9065 941996	22647 1470822	222769	462503	717526	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	10548 893911	19401 1419074	221357	461420	705086	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	6968 693490	16082 1068740	166342	337052	524952	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2,2-Dichloropropane	FB	Ave	+++++ 179623	3853 269570	39785	79500	123569	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1506 141834	3807 225125	39551	82835	117475	1.00 80.0	2.00 120	20.0	40.0	60.0
Bromochloromethane	FB	Ave	3063 330972	7271 517656	79962	165022	256145	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	3009 274588	6741 436736	78576	164883	230045	1.00 80.0	2.00 120	20.0	40.0	60.0
Chloroform	FB	Ave	11882 1027741	24050 1580573	250881	493775	778717	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	9147 901529	19255 1400618	212746	424951	689461	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	7836 705091	16219 1136060	158248	265295	530272	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	8868 793665	19133 1221971	189282	363554	604544	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	7890 785418	15882 1222773	176035	342104	583088	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	3221 369777	9613 611082	107924	229119	325980	12.5 1000	25.0 1500	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	25964 2366161	54206 3673703	580978	1175629	1823465	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	8680 815435	18982 1264447	202852	404314	632903	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Qua	+++++ 219643	37103 412220	69713	103871	172308	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	7913 676479	16401 1049291	167550	337548	521757	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	8152 674533	17559 1142634	148273	250169	496943	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	4501 499055	11960 793815	122387	247947	382579	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	3741 364001	8627 563159	90938	184820	279130	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 127320	2788 237532	44651	61801	101251	+++++ 800	20.0 1200	200	400	600
Bromodichloromethane	FB	Ave	7501 759390	17884 1209827	180495	379898	580902	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	6075 649658	13104 1041892	161063	349928	521071	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	8529 890961	17913 1406540	206425	440668	685858	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	10189 926209	20825 1457992	250990	538149	744024	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	28428 2456044	58271 3869813	610733	1227165	1894802	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7902 808125	15417 1302758	189336	414603	626063	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	8279 750757	17010 1193727	185988	390784	590491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5170 486301	12937 759934	123239	253284	384381	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	4980 470693	10371 753212	114043	227605	366142	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	9006 856139	20705 1365110	211343	453581	677841	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	6391 625510	14798 991960	167263	372357	510491	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	5486 557655	11417 899491	133762	286403	436565	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromoethane	CBNZ d5	Ave	5084 514964	11699 818067	135903	279124	408230	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	18518 1636151	40212 2592882	403535	817673	1254872	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5577 607441	11771 940616	145727	291336	448330	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	10215 876926	19226 1379637	208722	415854	664848	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11761 1072851	27076 1710576	263675	511396	806994	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	12427 1088558	26465 1723031	263656	524535	822933	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	18790 1838204	40950 2901746	436309	898491	1384427	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	+++++ 368000	6794 597772	84772	185191	280975	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	26213 2518622	60465 4060653	605967	1177771	1878436	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6287 662991	14372 1039038	173269	357505	523176	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	6327 708700	17219 1116427	174801	350438	538713	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	2875 241715	5755 371326	65168	133059	191312	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1540 198028	3254 314964	46811	105102	152287	0.500 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	6387 675833	16807 1119764	164134	320383	502081	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	7055 640490	14964 1016529	157495	313655	477146	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	23855 2052939	47470 3350579	490862	958200	1539956	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	7110 657911	15713 1057448	166936	327373	498678	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	20874 1940179	46292 3191307	469404	838585	1454968	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	23269 2150754	52062 3514827	515946	1030762	1632290	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	25515 2170609	56031 3650564	508878	1000044	1597915	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	14023 1277520	33817 2027473	316328	615881	948392	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	22024 1995311	52075 3296383	480856	925532	1491079	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	17170 1298559	34411 2075786	333591	634583	982493	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	20587 1569370	44286 2627977	371581	703979	1167015	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	15426 1264347	32084 2010419	319464	623048	946020	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 160095	3628 268190	42129	91099	129213	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9849 740255	21544 1258033	183276	357920	557510	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Lin1	+++++ 305224	15536 433450	73027	131798	223032	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	26552 2338354	59954 3905228	617159	1274380	1862666	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9056 691722	21425 1185321	171813	346510	531830	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	5517 549223	10876 858338	129145	275728	412922	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7027 679756	15896 1052831	164335	339179	544921	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	22038 2127550	47136 3346741	508545	1054884	1633511	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	8627 757249	18176 1199558	183415	379641	579099	0.500 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 325908

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/08/2018 20:37 Calibration End Date: 05/08/2018 22:59 Calibration ID: 45035

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-325908/15	UXM11114.D
Level 2	STD8260 240-325908/14	UXM11113.D
Level 3	STD8260 240-325908/13	UXM11112.D
Level 4	ICIS 240-325908/12	UXM11111.D
Level 5	STD8260 240-325908/11	UXM11110.D
Level 6	STD8260 240-325908/10	UXM11109.D
Level 7	STD8260 240-325908/9	UXM11108.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Trichlorofluoromethane	8.4						50					
Acetone	+++++	-8.7						50				
n-Heptane	+++++	-3.3						50				
Hexachlorobutadiene	+++++	12.6						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-325908/16 Calibration Date: 05/08/2018 23:22

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11115.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2611	0.2913	0.1000	0.0223	0.0200	11.6	30.0
Chloromethane	Ave	0.2785	0.2663	0.1000	0.0191	0.0200	-4.4	30.0
Butadiene	Ave	0.2562	0.2552		0.0199	0.0200	-0.4	30.0
Vinyl chloride	Ave	0.2803	0.3072	0.1000	0.0219	0.0200	9.6	30.0
Bromomethane	Ave	0.2330	0.2420	0.0500	0.0208	0.0200	3.8	30.0
Chloroethane	Ave	0.2030	0.2070	0.0500	0.0204	0.0200	2.0	30.0
Dichlorofluoromethane	Ave	0.4831	0.5149		0.0213	0.0200	6.6	30.0
Trichlorofluoromethane	Lin1		0.4648	0.1000	0.0213	0.0200	6.4	30.0
Ethyl ether	Ave	0.2239	0.2286		0.0204	0.0200	2.1	30.0
Acrolein	Ave	0.0377	0.0249		0.0661	0.100	-33.9	50.0
1,1-Dichloroethene	Ave	0.2589	0.2657	0.1000	0.0205	0.0200	2.6	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1917	0.2013	0.0500	0.0210	0.0200	5.0	30.0
Acetone	Lin1		0.0240	0.0100	0.0356	0.0400	-10.9	50.0
Iodomethane	Ave	0.4901	0.4681		0.0191	0.0200	-4.5	30.0
Carbon disulfide	Ave	0.7750	0.7687	0.1000	0.0198	0.0200	-0.8	30.0
3-Chloro-1-propene	Ave	0.3810	0.3545		0.0186	0.0200	-7.0	30.0
Methyl acetate	Ave	0.2045	0.1798	0.1000	0.0352	0.0400	-12.1	30.0
Methylene Chloride	Ave	0.3073	0.3017	0.1000	0.0196	0.0200	-1.8	50.0
tert-Butyl alcohol	Ave	0.0300	0.0265		0.177	0.200	-11.5	50.0
Acrylonitrile	Ave	0.1002	0.0928		0.185	0.200	-7.4	30.0
Methyl tert-butyl ether	Ave	0.8673	0.8448	0.1000	0.0195	0.0200	-2.6	30.0
trans-1,2-Dichloroethene	Ave	0.2911	0.2953	0.1000	0.0203	0.0200	1.5	30.0
Hexane	Ave	0.2044	0.2019		0.0198	0.0200	-1.2	30.0
1,1-Dichloroethane	Ave	0.4408	0.4321	0.2000	0.0196	0.0200	-2.0	30.0
Vinyl acetate	Ave	0.4327	0.4443		0.0205	0.0200	2.7	50.0
2,2-Dichloropropane	Ave	0.0803	0.0803		0.0200	0.0200	-0.0	30.0
2-Butanone (MEK)	Ave	0.0364	0.0325	0.0100	0.0357	0.0400	-10.8	30.0
cis-1,2-Dichloroethene	Ave	0.3238	0.3218	0.1000	0.0199	0.0200	-0.6	30.0
Bromochloromethane	Ave	0.1533	0.1498		0.0195	0.0200	-2.3	30.0
Tetrahydrofuran	Ave	0.0706	0.0622		0.0352	0.0400	-11.9	30.0
Chloroform	Ave	0.4900	0.4865	0.2000	0.0199	0.0200	-0.7	30.0
1,1,1-Trichloroethane	Ave	0.4150	0.4240	0.1000	0.0204	0.0200	2.2	30.0
Cyclohexane	Ave	0.3217	0.3321	0.1000	0.0206	0.0200	3.2	30.0
1,1-Dichloropropene	Ave	0.3749	0.3657		0.0195	0.0200	-2.5	30.0
Carbon tetrachloride	Ave	0.3506	0.3398	0.1000	0.0194	0.0200	-3.1	30.0
Isobutyl alcohol	Ave	0.0076	0.0070		0.457	0.500	-8.7	30.0
1,2-Dichloroethane	Ave	0.3886	0.3885	0.1000	0.0200	0.0200	-0.0	30.0
Benzene	Ave	1.127	1.099	0.5000	0.0195	0.0200	-2.5	30.0
n-Heptane	Qua		0.1143		0.0220	0.0200	10.0	30.0
Trichloroethene	Ave	0.3283	0.3073	0.1500	0.0187	0.0200	-6.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-325908/16 Calibration Date: 05/08/2018 23:22

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11115.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3178	0.3057	0.1000	0.0192	0.0200	-3.8	30.0
1,2-Dichloropropane	Ave	0.2341	0.2448	0.1000	0.0209	0.0200	4.6	30.0
Dibromomethane	Ave	0.1735	0.1721		0.0198	0.0200	-0.8	30.0
1,4-Dioxane	Ave	0.0034	0.0031		0.366	0.400	-8.6	50.0
Bromodichloromethane	Ave	0.3579	0.3598	0.1500	0.0201	0.0200	0.5	30.0
2-Chloroethyl vinyl ether	Ave	0.1527	0.1502		0.0197	0.0200	-1.6	30.0
cis-1,3-Dichloropropene	Ave	0.4070	0.4322	0.1500	0.0212	0.0200	6.2	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2304	0.2193	0.0500	0.0381	0.0400	-4.8	30.0
Toluene	Ave	1.477	1.441	0.4000	0.0195	0.0200	-2.4	30.0
trans-1,3-Dichloropropene	Ave	0.4615	0.4542	0.1000	0.0197	0.0200	-1.6	30.0
Ethyl methacrylate	Ave	0.4497	0.4237		0.0188	0.0200	-5.8	30.0
1,1,2-Trichloroethane	Ave	0.2972	0.2895	0.1000	0.0195	0.0200	-2.6	30.0
Tetrachloroethene	Ave	0.2754	0.2721	0.1500	0.0198	0.0200	-1.2	30.0
1,3-Dichloropropane	Ave	0.5161	0.5041		0.0195	0.0200	-2.3	30.0
2-Hexanone	Ave	0.1936	0.1759	0.0500	0.0363	0.0400	-9.1	30.0
Chlorodibromomethane	Ave	0.3231	0.3257		0.0202	0.0200	0.8	30.0
1,2-Dibromoethane	Ave	0.3092	0.2964		0.0192	0.0200	-4.2	30.0
Chlorobenzene	Ave	0.9844	0.9732	0.3000	0.0198	0.0200	-1.1	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3379	0.3525		0.0209	0.0200	4.3	30.0
Ethylbenzene	Ave	0.5137	0.5052		0.0197	0.0200	-1.6	30.0
m-Xylene & p-Xylene	Ave	0.6395	0.6273		0.0196	0.0200	-1.9	30.0
o-Xylene	Ave	0.6483	0.6521		0.0201	0.0200	0.6	30.0
Styrene	Ave	1.063	1.075	0.3000	0.0202	0.0200	1.1	30.0
Bromoform	Ave	0.2117	0.2054	0.1000	0.0194	0.0200	-3.0	30.0
Isopropylbenzene	Ave	1.472	1.469	0.1000	0.0199	0.0200	-0.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6730	0.6338	0.3000	0.0188	0.0200	-5.8	30.0
Bromobenzene	Ave	0.7068	0.6865		0.0194	0.0200	-2.9	30.0
1,2,3-Trichloropropane	Ave	0.2573	0.2316		0.0180	0.0200	-10.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1868	0.1835		0.0196	0.0200	-1.8	30.0
N-Propylbenzene	Ave	0.6784	0.6632		0.0196	0.0200	-2.2	30.0
2-Chlorotoluene	Ave	0.6500	0.6123		0.0188	0.0200	-5.8	30.0
1,3,5-Trimethylbenzene	Ave	2.086	1.927		0.0185	0.0200	-7.6	30.0
4-Chlorotoluene	Ave	0.6754	0.6524		0.0193	0.0200	-3.4	30.0
tert-Butylbenzene	Ave	1.944	1.837		0.0189	0.0200	-5.5	30.0
1,2,4-Trimethylbenzene	Ave	2.190	2.058		0.0188	0.0200	-6.0	30.0
sec-Butylbenzene	Ave	2.239	2.049		0.0183	0.0200	-8.5	30.0
1,3-Dichlorobenzene	Ave	1.318	1.231	0.6000	0.0187	0.0200	-6.6	30.0
4-Isopropyltoluene	Ave	2.051	1.884		0.0184	0.0200	-8.2	30.0
1,4-Dichlorobenzene	Ave	1.391	1.284	0.5000	0.0184	0.0200	-7.8	30.0
n-Butylbenzene	Ave	1.667	1.403		0.0168	0.0200	-15.8	30.0
1,2-Dichlorobenzene	Ave	1.325	1.246	0.4000	0.0188	0.0200	-5.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-325908/16 Calibration Date: 05/08/2018 23:22

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11115.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1724	0.1515	0.0500	0.0176	0.0200	-12.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8072	0.6849	0.2000	0.0170	0.0200	-15.1	50.0
Hexachlorobutadiene	Lin1		0.2453		0.0159	0.0200	-20.7	30.0
Naphthalene	Ave	2.520	2.215		0.0176	0.0200	-12.1	50.0
1,2,3-Trichlorobenzene	Ave	0.7670	0.6469		0.0169	0.0200	-15.7	30.0
Dibromofluoromethane (Surr)	Ave	0.2517	0.2166		0.0172	0.0200	-13.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3234	0.2738		0.0169	0.0200	-15.3	30.0
Toluene-d8 (Surr)	Ave	1.239	1.127		0.0182	0.0200	-9.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4533	0.4407		0.0194	0.0200	-2.8	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB5641.D BFB Injection Date: 05/22/2018

Instrument ID: A3UX16 BFB Injection Time: 08:17

Analysis Batch No.: 327925

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.1	
75	30.0 - 60.0 % of mass 95	50.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	84.5	
175	5.0 - 9.0 % of mass 174	6.2	(7.3) 1
176	95.0 - 101.0 % of mass 174	80.4	(95.2) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-327925/4	UXM11468.D	05/22/2018	08:40
	LCS 240-327925/5	UXM11469.D	05/22/2018	09:15
	CCV 240-327925/6	UXM11470.D	05/22/2018	09:39
	MB 240-327925/9	UXM11473.D	05/22/2018	10:50
TB-050918	240-95494-1	UXM11487.D	05/22/2018	16:42
MT-MW11S-050918	240-95494-2	UXM11488.D	05/22/2018	17:05
MT-MW04S-050918	240-95494-3	UXM11489.D	05/22/2018	17:30
MT-MW10S-050918	240-95494-4	UXM11490.D	05/22/2018	17:53
MT-MW02S-051018	240-95494-5	UXM11491.D	05/22/2018	18:17
MT-MW01S-051018	240-95494-6	UXM11492.D	05/22/2018	18:41
MT-MW09S-051018	240-95494-7	UXM11493.D	05/22/2018	19:04

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327925/4 Calibration Date: 05/22/2018 08:40

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11468.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2611	0.3336	0.1000	0.0256	0.0200	27.8*	20.0
Chloromethane	Ave	0.2785	0.3182	0.1000	0.0229	0.0200	14.3	20.0
Butadiene	Ave	0.2562	0.3130		0.0244	0.0200	22.2*	20.0
Vinyl chloride	Ave	0.2803	0.3491	0.1000	0.0249	0.0200	24.6*	20.0
Bromomethane	Ave	0.2330	0.2694	0.0500	0.0231	0.0200	15.6	20.0
Chloroethane	Ave	0.2030	0.2249	0.0500	0.0222	0.0200	10.8	20.0
Dichlorofluoromethane	Ave	0.4831	0.5298		0.0219	0.0200	9.7	20.0
Trichlorofluoromethane	Lin1		0.4893	0.1000	0.0224	0.0200	12.0	20.0
Ethyl ether	Ave	0.2239	0.2292		0.0205	0.0200	2.4	20.0
Acrolein	Ave	0.0377	0.0340		0.0903	0.100	-9.7	50.0
1,1-Dichloroethene	Ave	0.2589	0.2735	0.1000	0.0211	0.0200	5.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1917	0.2178	0.0500	0.0227	0.0200	13.6	20.0
Acetone	Lin1		0.0269	0.0100	0.0404	0.0400	0.9	50.0
Iodomethane	Ave	0.4901	0.5337		0.0218	0.0200	8.9	20.0
Carbon disulfide	Ave	0.7750	0.8429	0.1000	0.0218	0.0200	8.8	20.0
3-Chloro-1-propene	Ave	0.3810	0.3665		0.0192	0.0200	-3.8	20.0
Methyl acetate	Ave	0.2045	0.2131	0.1000	0.0417	0.0400	4.2	20.0
Methylene Chloride	Ave	0.3073	0.3131	0.1000	0.0204	0.0200	1.9	50.0
tert-Butyl alcohol	Ave	0.0300	0.0310		0.207	0.200	3.5	50.0
Acrylonitrile	Ave	0.1002	0.1070		0.214	0.200	6.8	20.0
Methyl tert-butyl ether	Ave	0.8673	0.9357	0.1000	0.0216	0.0200	7.9	20.0
trans-1,2-Dichloroethene	Ave	0.2911	0.3213	0.1000	0.0221	0.0200	10.4	20.0
Hexane	Ave	0.2044	0.2015		0.0197	0.0200	-1.4	20.0
1,1-Dichloroethane	Ave	0.4408	0.4759	0.2000	0.0216	0.0200	8.0	20.0
Vinyl acetate	Ave	0.4327	0.4523		0.0209	0.0200	4.5	50.0
2,2-Dichloropropane	Ave	0.0803	0.0927		0.0231	0.0200	15.4	20.0
2-Butanone (MEK)	Ave	0.0364	0.0396	0.0100	0.0435	0.0400	8.6	20.0
cis-1,2-Dichloroethene	Ave	0.3238	0.3546	0.1000	0.0219	0.0200	9.5	20.0
Bromochloromethane	Ave	0.1533	0.1722		0.0225	0.0200	12.3	20.0
Tetrahydrofuran	Ave	0.0706	0.0753		0.0427	0.0400	6.7	20.0
Chloroform	Ave	0.4900	0.5278	0.2000	0.0215	0.0200	7.7	20.0
1,1,1-Trichloroethane	Ave	0.4150	0.4668	0.1000	0.0225	0.0200	12.5	20.0
Cyclohexane	Ave	0.3217	0.3306	0.1000	0.0206	0.0200	2.8	20.0
1,1-Dichloropropene	Ave	0.3749	0.4041		0.0216	0.0200	7.8	20.0
Carbon tetrachloride	Ave	0.3506	0.3959	0.1000	0.0226	0.0200	12.9	20.0
Isobutyl alcohol	Ave	0.0076	0.0083		0.543	0.500	8.5	20.0
1,2-Dichloroethane	Ave	0.3886	0.4224	0.1000	0.0217	0.0200	8.7	20.0
Benzene	Ave	1.127	1.200	0.5000	0.0213	0.0200	6.4	20.0
n-Heptane	Qua		0.1113		0.0214	0.0200	7.0	20.0
Trichloroethene	Ave	0.3283	0.3467	0.1500	0.0211	0.0200	5.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327925/4 Calibration Date: 05/22/2018 08:40

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11468.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3178	0.3054	0.1000	0.0192	0.0200	-3.9	20.0
1,2-Dichloropropane	Ave	0.2341	0.2575	0.1000	0.0220	0.0200	10.0	20.0
Dibromomethane	Ave	0.1735	0.1879		0.0217	0.0200	8.3	20.0
1,4-Dioxane	Ave	0.0034	0.0031		0.364	0.400	-8.9	50.0
Bromodichloromethane	Ave	0.3579	0.3917	0.1500	0.0219	0.0200	9.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1527	0.1735		0.0455	0.0400	13.6	20.0
cis-1,3-Dichloropropene	Ave	0.4070	0.4527	0.1500	0.0222	0.0200	11.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2304	0.2494	0.0500	0.0433	0.0400	8.3	20.0
Toluene	Ave	1.477	1.422	0.4000	0.0193	0.0200	-3.7	20.0
trans-1,3-Dichloropropene	Ave	0.4615	0.4554	0.1000	0.0197	0.0200	-1.3	20.0
Ethyl methacrylate	Ave	0.4497	0.4296		0.0191	0.0200	-4.5	20.0
1,1,2-Trichloroethane	Ave	0.2972	0.2915	0.1000	0.0196	0.0200	-1.9	20.0
Tetrachloroethene	Ave	0.2754	0.2690	0.1500	0.0195	0.0200	-2.3	20.0
1,3-Dichloropropane	Ave	0.5161	0.5019		0.0194	0.0200	-2.8	20.0
2-Hexanone	Ave	0.1936	0.1863	0.0500	0.0385	0.0400	-3.8	20.0
Chlorodibromomethane	Ave	0.3231	0.3264		0.0202	0.0200	1.0	20.0
1,2-Dibromoethane	Ave	0.3092	0.3044		0.0197	0.0200	-1.5	20.0
Chlorobenzene	Ave	0.9844	0.9432	0.3000	0.0192	0.0200	-4.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3379	0.3321		0.0197	0.0200	-1.7	20.0
Ethylbenzene	Ave	0.5137	0.5009		0.0195	0.0200	-2.5	20.0
m-Xylene & p-Xylene	Ave	0.6395	0.6116		0.0191	0.0200	-4.4	20.0
o-Xylene	Ave	0.6483	0.6181		0.0191	0.0200	-4.7	20.0
Styrene	Ave	1.063	1.044	0.3000	0.0196	0.0200	-1.8	20.0
Bromoform	Ave	0.2117	0.2094	0.1000	0.0198	0.0200	-1.1	20.0
Isopropylbenzene	Ave	1.472	1.405	0.1000	0.0191	0.0200	-4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6730	0.6668	0.3000	0.0198	0.0200	-0.9	20.0
Bromobenzene	Ave	0.7068	0.6922		0.0196	0.0200	-2.1	20.0
1,2,3-Trichloropropane	Ave	0.2573	0.2484		0.0193	0.0200	-3.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1868	0.1942		0.0208	0.0200	4.0	20.0
N-Propylbenzene	Ave	0.6784	0.6464		0.0191	0.0200	-4.7	20.0
2-Chlorotoluene	Ave	0.6500	0.6152		0.0189	0.0200	-5.4	20.0
1,3,5-Trimethylbenzene	Ave	2.086	1.906		0.0183	0.0200	-8.6	20.0
4-Chlorotoluene	Ave	0.6754	0.6399		0.0189	0.0200	-5.3	20.0
tert-Butylbenzene	Ave	1.944	1.652		0.0170	0.0200	-15.0	20.0
1,2,4-Trimethylbenzene	Ave	2.190	2.030		0.0185	0.0200	-7.3	20.0
sec-Butylbenzene	Ave	2.239	1.962		0.0175	0.0200	-12.4	20.0
1,3-Dichlorobenzene	Ave	1.318	1.210	0.6000	0.0184	0.0200	-8.2	20.0
4-Isopropyltoluene	Ave	2.051	1.797		0.0175	0.0200	-12.4	20.0
1,4-Dichlorobenzene	Ave	1.391	1.254	0.5000	0.0180	0.0200	-9.8	20.0
n-Butylbenzene	Ave	1.667	1.392		0.0167	0.0200	-16.5	20.0
1,2-Dichlorobenzene	Ave	1.325	1.198	0.4000	0.0181	0.0200	-9.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327925/4 Calibration Date: 05/22/2018 08:40

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11468.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1724	0.1599	0.0500	0.0186	0.0200	-7.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8072	0.6378	0.2000	0.0158	0.0200	-21.0	50.0
Hexachlorobutadiene	Lin1		0.2149		0.0137	0.0200	-31.3*	20.0
Naphthalene	Ave	2.520	2.089		0.0166	0.0200	-17.1	50.0
1,2,3-Trichlorobenzene	Ave	0.7670	0.5772		0.0150	0.0200	-24.8*	20.0
Dibromofluoromethane (Surr)	Ave	0.2517	0.2582		0.0205	0.0200	2.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3234	0.3221		0.0199	0.0200	-0.4	20.0
Toluene-d8 (Surr)	Ave	1.239	1.152		0.0186	0.0200	-7.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4533	0.4154		0.0183	0.0200	-8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327925/6 Calibration Date: 05/22/2018 09:39

Instrument ID: A3UX16 Calib Start Date: 04/20/2018 14:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2018 16:46

Lab File ID: UXM11470.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0355	0.0293		0.165	0.200	-17.4	20.0
Diisopropyl ether	Ave	0.2571	0.2715		0.0211	0.0200	5.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4336	0.4044		0.0187	0.0200	-6.7	20.0
Ethyl tert-butyl ether	Ave	0.8305	0.8025		0.0193	0.0200	-3.4	20.0
Ethyl acetate	Ave	0.2277	0.2122		0.0373	0.0400	-6.8	50.0
Propionitrile	Ave	0.0369	0.0353		0.191	0.200	-4.4	20.0
Methacrylonitrile	Ave	0.1558	0.1416		0.182	0.200	-9.1	20.0
Tert-amyl methyl ether	Ave	0.8571	0.8336		0.0194	0.0200	-2.8	20.0
n-Butanol	Ave	0.0074	0.0058		0.391	0.500	-21.8*	20.0
Ethyl acrylate	Ave	0.2893	0.2851		0.0197	0.0200	-1.4	20.0
Methyl methacrylate	Ave	0.2105	0.1973		0.0375	0.0400	-6.3	20.0
2-Nitropropane	Ave	0.0910	0.0617		0.0271	0.0400	-32.2*	20.0
n-Butyl acetate	Ave	0.3636	0.3255		0.0179	0.0200	-10.5	20.0
1-Chlorohexane	Ave	0.4054	0.3269		0.0161	0.0200	-19.3	20.0
Cyclohexanone	Ave	0.0261	0.0148		0.113	0.200	-43.5*	20.0
Pentachloroethane	Ave	0.2335	0.2026		0.0347	0.0400	-13.2	20.0
1,2,3-Trimethylbenzene	Ave	2.571	1.977		0.0154	0.0200	-23.1*	20.0
Benzyl chloride	Ave	0.4295	0.2378		0.0111	0.0200	-44.6*	20.0
1,3,5-Trichlorobenzene	Ave	0.8491	0.6669		0.0157	0.0200	-21.5*	20.0
2-Methylnaphthalene	Lin1		0.9175		0.0292	0.0400	-27.1*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB5643.D BFB Injection Date: 05/24/2018

Instrument ID: A3UX16 BFB Injection Time: 08:19

Analysis Batch No.: 328313

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	49.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	81.1	
175	5.0 - 9.0 % of mass 174	6.4	(7.9) 1
176	95.0 - 101.0 % of mass 174	78.3	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-328313/4	UXM11536.D	05/24/2018	08:45
	LCS 240-328313/5	UXM11537.D	05/24/2018	09:08
	CCV 240-328313/6	UXM11538.D	05/24/2018	09:32
	MB 240-328313/9	UXM11541.D	05/24/2018	10:43
TB-051418	240-95580-1	UXM11561.D	05/24/2018	18:45
MSA-MW-36S-051418	240-95580-2	UXM11562.D	05/24/2018	19:09
MSA-MW-37S-051418	240-95580-3	UXM11563.D	05/24/2018	19:33
MSA-MW-35S-051418	240-95580-4	UXM11564.D	05/24/2018	19:57

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328313/4 Calibration Date: 05/24/2018 08:45

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11536.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2611	0.2912	0.1000	0.0223	0.0200	11.5	20.0
Chloromethane	Ave	0.2785	0.3270	0.1000	0.0235	0.0200	17.4	20.0
Butadiene	Ave	0.2562	0.2967		0.0232	0.0200	15.8	20.0
Vinyl chloride	Ave	0.2803	0.3547	0.1000	0.0253	0.0200	26.6*	20.0
Bromomethane	Ave	0.2330	0.2840	0.0500	0.0244	0.0200	21.9*	20.0
Chloroethane	Ave	0.2030	0.2357	0.0500	0.0232	0.0200	16.1	20.0
Dichlorofluoromethane	Ave	0.4831	0.5450		0.0226	0.0200	12.8	20.0
Trichlorofluoromethane	Lin1		0.4593	0.1000	0.0210	0.0200	5.2	20.0
Ethyl ether	Ave	0.2239	0.2411		0.0215	0.0200	7.7	20.0
Acrolein	Ave	0.0377	0.0427		0.113	0.100	13.5	50.0
1,1-Dichloroethene	Ave	0.2589	0.2937	0.1000	0.0227	0.0200	13.5	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1917	0.2412	0.0500	0.0252	0.0200	25.8*	20.0
Acetone	Lin1		0.0274	0.0100	0.0412	0.0400	2.9	50.0
Iodomethane	Ave	0.4901	0.5645		0.0230	0.0200	15.2	20.0
Carbon disulfide	Ave	0.7750	0.8742	0.1000	0.0226	0.0200	12.8	20.0
3-Chloro-1-propene	Ave	0.3810	0.3827		0.0201	0.0200	0.4	20.0
Methyl acetate	Ave	0.2045	0.2145	0.1000	0.0420	0.0400	4.9	20.0
Methylene Chloride	Ave	0.3073	0.3390	0.1000	0.0221	0.0200	10.3	50.0
tert-Butyl alcohol	Ave	0.0300	0.0319		0.213	0.200	6.4	50.0
Acrylonitrile	Ave	0.1002	0.1158		0.231	0.200	15.6	20.0
Methyl tert-butyl ether	Ave	0.8673	0.998	0.1000	0.0230	0.0200	15.1	20.0
trans-1,2-Dichloroethene	Ave	0.2911	0.3429	0.1000	0.0236	0.0200	17.8	20.0
Hexane	Ave	0.2044	0.2136		0.0209	0.0200	4.5	20.0
1,1-Dichloroethane	Ave	0.4408	0.5075	0.2000	0.0230	0.0200	15.1	20.0
Vinyl acetate	Ave	0.4327	0.4177		0.0193	0.0200	-3.5	50.0
2,2-Dichloropropane	Ave	0.0803	0.0992		0.0247	0.0200	23.5*	20.0
2-Butanone (MEK)	Ave	0.0364	0.0371	0.0100	0.0408	0.0400	2.0	20.0
cis-1,2-Dichloroethene	Ave	0.3238	0.3801	0.1000	0.0235	0.0200	17.4	20.0
Bromochloromethane	Ave	0.1533	0.1844		0.0240	0.0200	20.2*	20.0
Tetrahydrofuran	Ave	0.0706	0.0741		0.0420	0.0400	5.0	20.0
Chloroform	Ave	0.4900	0.5533	0.2000	0.0226	0.0200	12.9	20.0
1,1,1-Trichloroethane	Ave	0.4150	0.4938	0.1000	0.0238	0.0200	19.0	20.0
Cyclohexane	Ave	0.3217	0.3513	0.1000	0.0218	0.0200	9.2	20.0
1,1-Dichloropropene	Ave	0.3749	0.4104		0.0219	0.0200	9.5	20.0
Carbon tetrachloride	Ave	0.3506	0.4123	0.1000	0.0235	0.0200	17.6	20.0
Isobutyl alcohol	Ave	0.0076	0.0085		0.556	0.500	11.1	20.0
1,2-Dichloroethane	Ave	0.3886	0.4324	0.1000	0.0223	0.0200	11.3	20.0
Benzene	Ave	1.127	1.243	0.5000	0.0221	0.0200	10.3	20.0
n-Heptane	Qua		0.1177		0.0227	0.0200	13.5	20.0
Trichloroethene	Ave	0.3283	0.3559	0.1500	0.0217	0.0200	8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328313/4 Calibration Date: 05/24/2018 08:45

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11536.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3178	0.3283	0.1000	0.0207	0.0200	3.3	20.0
1,2-Dichloropropane	Ave	0.2341	0.2567	0.1000	0.0219	0.0200	9.6	20.0
1,4-Dioxane	Ave	0.0034	0.0028		0.337	0.400	-15.9	50.0
Dibromomethane	Ave	0.1735	0.1962		0.0226	0.0200	13.1	20.0
Bromodichloromethane	Ave	0.3579	0.3926	0.1500	0.0219	0.0200	9.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1527	0.1587		0.0416	0.0400	3.9	20.0
cis-1,3-Dichloropropene	Ave	0.4070	0.4392	0.1500	0.0216	0.0200	7.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2304	0.2462	0.0500	0.0428	0.0400	6.9	20.0
Toluene	Ave	1.477	1.418	0.4000	0.0192	0.0200	-4.0	20.0
trans-1,3-Dichloropropene	Ave	0.4615	0.4430	0.1000	0.0192	0.0200	-4.0	20.0
Ethyl methacrylate	Ave	0.4497	0.4168		0.0185	0.0200	-7.3	20.0
1,1,2-Trichloroethane	Ave	0.2972	0.2880	0.1000	0.0194	0.0200	-3.1	20.0
1,3-Dichloropropane	Ave	0.5161	0.4883		0.0189	0.0200	-5.4	20.0
Tetrachloroethene	Ave	0.2754	0.2799	0.1500	0.0203	0.0200	1.7	20.0
2-Hexanone	Ave	0.1936	0.1800	0.0500	0.0372	0.0400	-7.0	20.0
Chlorodibromomethane	Ave	0.3231	0.3246		0.0201	0.0200	0.5	20.0
1,2-Dibromoethane	Ave	0.3092	0.2992		0.0194	0.0200	-3.2	20.0
Chlorobenzene	Ave	0.9844	0.9512	0.3000	0.0193	0.0200	-3.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3379	0.3525		0.0209	0.0200	4.3	20.0
Ethylbenzene	Ave	0.5137	0.5050		0.0197	0.0200	-1.7	20.0
m-Xylene & p-Xylene	Ave	0.6395	0.6229		0.0195	0.0200	-2.6	20.0
o-Xylene	Ave	0.6483	0.6391		0.0197	0.0200	-1.4	20.0
Styrene	Ave	1.063	1.062	0.3000	0.0200	0.0200	-0.0	20.0
Bromoform	Ave	0.2117	0.2246	0.1000	0.0212	0.0200	6.1	20.0
Isopropylbenzene	Ave	1.472	1.457	0.1000	0.0198	0.0200	-1.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6730	0.6655	0.3000	0.0198	0.0200	-1.1	20.0
Bromobenzene	Ave	0.7068	0.6867		0.0194	0.0200	-2.9	20.0
1,2,3-Trichloropropane	Ave	0.2573	0.2454		0.0191	0.0200	-4.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1868	0.1818		0.0195	0.0200	-2.6	20.0
N-Propylbenzene	Ave	0.6784	0.6377		0.0188	0.0200	-6.0	20.0
2-Chlorotoluene	Ave	0.6500	0.6064		0.0187	0.0200	-6.7	20.0
1,3,5-Trimethylbenzene	Ave	2.086	1.901		0.0182	0.0200	-8.9	20.0
4-Chlorotoluene	Ave	0.6754	0.6425		0.0190	0.0200	-4.9	20.0
tert-Butylbenzene	Ave	1.944	1.621		0.0167	0.0200	-16.6	20.0
1,2,4-Trimethylbenzene	Ave	2.190	2.024		0.0185	0.0200	-7.6	20.0
sec-Butylbenzene	Ave	2.239	1.947		0.0174	0.0200	-13.1	20.0
1,3-Dichlorobenzene	Ave	1.318	1.214	0.6000	0.0184	0.0200	-7.9	20.0
4-Isopropyltoluene	Ave	2.051	1.817		0.0177	0.0200	-11.4	20.0
1,4-Dichlorobenzene	Ave	1.391	1.274	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	1.667	1.382		0.0166	0.0200	-17.1	20.0
1,2-Dichlorobenzene	Ave	1.325	1.217	0.4000	0.0184	0.0200	-8.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328313/4 Calibration Date: 05/24/2018 08:45

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11536.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1724	0.1620	0.0500	0.0188	0.0200	-6.0	50.0
1,2,4-Trichlorobenzene	Ave	0.8072	0.6418	0.2000	0.0159	0.0200	-20.5	50.0
Hexachlorobutadiene	Lin1		0.2113		0.0135	0.0200	-32.5*	20.0
Naphthalene	Ave	2.520	2.095		0.0166	0.0200	-16.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7670	0.5681		0.0148	0.0200	-25.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2517	0.2685		0.0213	0.0200	6.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3234	0.3391		0.0210	0.0200	4.9	20.0
Toluene-d8 (Surr)	Ave	1.239	1.152		0.0186	0.0200	-6.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4533	0.4209		0.0186	0.0200	-7.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-328313/6 Calibration Date: 05/24/2018 09:32

Instrument ID: A3UX16 Calib Start Date: 04/20/2018 14:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2018 16:46

Lab File ID: UXM11538.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0355	0.0318		0.179	0.200	-10.5	20.0
Diisopropyl ether	Ave	0.2571	0.2993		0.0233	0.0200	16.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4336	0.4281		0.0197	0.0200	-1.3	20.0
Ethyl tert-butyl ether	Ave	0.8305	0.8865		0.0213	0.0200	6.7	20.0
Ethyl acetate	Ave	0.2277	0.2524		0.0443	0.0400	10.8	50.0
Propionitrile	Ave	0.0369	0.0402		0.218	0.200	8.9	20.0
Methacrylonitrile	Ave	0.1558	0.1633		0.210	0.200	4.8	20.0
Tert-amyl methyl ether	Ave	0.8571	0.9225		0.0215	0.0200	7.6	20.0
n-Butanol	Ave	0.0074	0.0069		0.466	0.500	-6.9	20.0
Ethyl acrylate	Ave	0.2893	0.3450		0.0239	0.0200	19.3	20.0
Methyl methacrylate	Ave	0.2105	0.2328		0.0442	0.0400	10.6	20.0
2-Nitropropane	Ave	0.0910	0.0714		0.0314	0.0400	-21.5*	20.0
n-Butyl acetate	Ave	0.3636	0.3740		0.0206	0.0200	2.9	20.0
1-Chlorohexane	Ave	0.4054	0.3448		0.0170	0.0200	-15.0	20.0
Cyclohexanone	Ave	0.0261	0.0163		0.125	0.200	-37.6*	20.0
Pentachloroethane	Ave	0.2335	0.2187		0.0375	0.0400	-6.3	20.0
1,2,3-Trimethylbenzene	Ave	2.571	2.122		0.0165	0.0200	-17.5	20.0
Benzyl chloride	Ave	0.4295	0.2664		0.0124	0.0200	-38.0*	20.0
1,3,5-Trichlorobenzene	Ave	0.8491	0.7281		0.0171	0.0200	-14.3	20.0
2-Methylnaphthalene	Lin1		1.037		0.0332	0.0400	-16.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB5644.D BFB Injection Date: 05/25/2018

Instrument ID: A3UX16 BFB Injection Time: 09:11

Analysis Batch No.: 328532

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	1.0	(1.2) 1
174	50.0 - 120.00 % of mass 95	83.9	
175	5.0 - 9.0 % of mass 174	6.2	(7.3) 1
176	95.0 - 101.0 % of mass 174	81.9	(97.6) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-328532/4	UXM11567.D	05/25/2018	09:36
	LCS 240-328532/5	UXM11568.D	05/25/2018	10:00
	CCV 240-328532/6	UXM11569.D	05/25/2018	10:24
	MB 240-328532/9	UXM11572.D	05/25/2018	11:34
MSA-MW-35S-051418	240-95580-4	UXM11579.D	05/25/2018	14:34

Only vinyl chloride and 2,2-dichloropropane reported

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328532/4 Calibration Date: 05/25/2018 09:36

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11567.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2611	0.2748	0.1000	0.0211	0.0200	5.3	20.0
Chloromethane	Ave	0.2785	0.2821	0.1000	0.0203	0.0200	1.3	20.0
Vinyl chloride	Ave	0.2803	0.2787	0.1000	0.0199	0.0200	-0.6	20.0
Butadiene	Ave	0.2562	0.2281		0.0178	0.0200	-11.0	20.0
Bromomethane	Ave	0.2330	0.2331	0.0500	0.0200	0.0200	0.0	20.0
Chloroethane	Ave	0.2030	0.1972	0.0500	0.0194	0.0200	-2.9	20.0
Dichlorofluoromethane	Ave	0.4831	0.4395		0.0182	0.0200	-9.0	20.0
Trichlorofluoromethane	Lin1		0.3826	0.1000	0.0176	0.0200	-12.1	20.0
Ethyl ether	Ave	0.2239	0.2203		0.0197	0.0200	-1.6	20.0
Acrolein	Ave	0.0377	0.0347		0.0922	0.100	-7.8	50.0
1,1-Dichloroethene	Ave	0.2589	0.2582	0.1000	0.0199	0.0200	-0.3	20.0
Acetone	Lin1		0.0266	0.0100	0.0399	0.0400	-0.3	50.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1917	0.2160	0.0500	0.0225	0.0200	12.6	20.0
Iodomethane	Ave	0.4901	0.5151		0.0210	0.0200	5.1	20.0
3-Chloro-1-propene	Ave	0.3810	0.3465		0.0182	0.0200	-9.0	20.0
Carbon disulfide	Ave	0.7750	0.9190	0.1000	0.0237	0.0200	18.6	20.0
Methyl acetate	Ave	0.2045	0.1954	0.1000	0.0382	0.0400	-4.5	20.0
Methylene Chloride	Ave	0.3073	0.3057	0.1000	0.0199	0.0200	-0.5	50.0
tert-Butyl alcohol	Ave	0.0300	0.0282		0.188	0.200	-5.9	50.0
Acrylonitrile	Ave	0.1002	0.1036		0.207	0.200	3.4	20.0
Methyl tert-butyl ether	Ave	0.8673	0.8964	0.1000	0.0207	0.0200	3.4	20.0
trans-1,2-Dichloroethene	Ave	0.2911	0.3012	0.1000	0.0207	0.0200	3.5	20.0
Hexane	Ave	0.2044	0.2030		0.0199	0.0200	-0.7	20.0
1,1-Dichloroethane	Ave	0.4408	0.4517	0.2000	0.0205	0.0200	2.5	20.0
Vinyl acetate	Ave	0.4327	0.4926		0.0228	0.0200	13.8	50.0
2,2-Dichloropropane	Ave	0.0803	0.0730		0.0182	0.0200	-9.1	20.0
cis-1,2-Dichloroethene	Ave	0.3238	0.3291	0.1000	0.0203	0.0200	1.6	20.0
2-Butanone (MEK)	Ave	0.0364	0.0379	0.0100	0.0416	0.0400	4.1	20.0
Bromochloromethane	Ave	0.1533	0.1623		0.0212	0.0200	5.9	20.0
Tetrahydrofuran	Ave	0.0706	0.0741		0.0420	0.0400	5.1	20.0
Chloroform	Ave	0.4900	0.4924	0.2000	0.0201	0.0200	0.5	20.0
1,1,1-Trichloroethane	Ave	0.4150	0.4202	0.1000	0.0203	0.0200	1.3	20.0
Cyclohexane	Ave	0.3217	0.3048	0.1000	0.0189	0.0200	-5.3	20.0
1,1-Dichloropropene	Ave	0.3749	0.3710		0.0198	0.0200	-1.0	20.0
Carbon tetrachloride	Ave	0.3506	0.3596	0.1000	0.0205	0.0200	2.6	20.0
Isobutyl alcohol	Ave	0.0076	0.0082		0.538	0.500	7.5	20.0
1,2-Dichloroethane	Ave	0.3886	0.4016	0.1000	0.0207	0.0200	3.4	20.0
Benzene	Ave	1.127	1.150	0.5000	0.0204	0.0200	2.0	20.0
n-Heptane	Qua		0.1119		0.0215	0.0200	7.6	20.0
Trichloroethene	Ave	0.3283	0.3302	0.1500	0.0201	0.0200	0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328532/4 Calibration Date: 05/25/2018 09:36

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11567.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3178	0.2863	0.1000	0.0180	0.0200	-9.9	20.0
1,2-Dichloropropane	Ave	0.2341	0.2417	0.1000	0.0207	0.0200	3.3	20.0
1,4-Dioxane	Ave	0.0034	0.0025		0.304	0.400	-24.1	50.0
Dibromomethane	Ave	0.1735	0.1771		0.0204	0.0200	2.1	20.0
Bromodichloromethane	Ave	0.3579	0.3741	0.1500	0.0209	0.0200	4.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1527	0.1663		0.0436	0.0400	8.9	20.0
cis-1,3-Dichloropropene	Ave	0.4070	0.4260	0.1500	0.0209	0.0200	4.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2304	0.2373	0.0500	0.0412	0.0400	3.0	20.0
Toluene	Ave	1.477	1.342	0.4000	0.0182	0.0200	-9.1	20.0
trans-1,3-Dichloropropene	Ave	0.4615	0.4349	0.1000	0.0188	0.0200	-5.8	20.0
Ethyl methacrylate	Ave	0.4497	0.4125		0.0183	0.0200	-8.3	20.0
1,1,2-Trichloroethane	Ave	0.2972	0.2731	0.1000	0.0184	0.0200	-8.1	20.0
Tetrachloroethene	Ave	0.2754	0.2581	0.1500	0.0187	0.0200	-6.3	20.0
1,3-Dichloropropane	Ave	0.5161	0.4870		0.0189	0.0200	-5.6	20.0
2-Hexanone	Ave	0.1936	0.1815	0.0500	0.0375	0.0400	-6.3	20.0
Chlorodibromomethane	Ave	0.3231	0.3129		0.0194	0.0200	-3.2	20.0
1,2-Dibromoethane	Ave	0.3092	0.3056		0.0198	0.0200	-1.2	20.0
Chlorobenzene	Ave	0.9844	0.8862	0.3000	0.0180	0.0200	-10.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3379	0.3179		0.0188	0.0200	-5.9	20.0
Ethylbenzene	Ave	0.5137	0.4583		0.0178	0.0200	-10.8	20.0
m-Xylene & p-Xylene	Ave	0.6395	0.5758		0.0180	0.0200	-10.0	20.0
o-Xylene	Ave	0.6483	0.5691		0.0176	0.0200	-12.2	20.0
Styrene	Ave	1.063	0.9915	0.3000	0.0186	0.0200	-6.8	20.0
Bromoform	Ave	0.2117	0.2070	0.1000	0.0196	0.0200	-2.2	20.0
Isopropylbenzene	Ave	1.472	1.286	0.1000	0.0175	0.0200	-12.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6730	0.6322	0.3000	0.0188	0.0200	-6.1	20.0
Bromobenzene	Ave	0.7068	0.6435		0.0182	0.0200	-9.0	20.0
1,2,3-Trichloropropane	Ave	0.2573	0.2425		0.0189	0.0200	-5.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1868	0.1769		0.0189	0.0200	-5.3	20.0
N-Propylbenzene	Ave	0.6784	0.5766		0.0170	0.0200	-15.0	20.0
2-Chlorotoluene	Ave	0.6500	0.5580		0.0172	0.0200	-14.2	20.0
1,3,5-Trimethylbenzene	Ave	2.086	1.730		0.0166	0.0200	-17.1	20.0
4-Chlorotoluene	Ave	0.6754	0.5941		0.0176	0.0200	-12.0	20.0
tert-Butylbenzene	Ave	1.944	1.638		0.0169	0.0200	-15.7	20.0
1,2,4-Trimethylbenzene	Ave	2.190	1.853		0.0169	0.0200	-15.4	20.0
sec-Butylbenzene	Ave	2.239	1.801		0.0161	0.0200	-19.6	20.0
1,3-Dichlorobenzene	Ave	1.318	1.124	0.6000	0.0171	0.0200	-14.7	20.0
4-Isopropyltoluene	Ave	2.051	1.637		0.0160	0.0200	-20.2*	20.0
1,4-Dichlorobenzene	Ave	1.391	1.158	0.5000	0.0167	0.0200	-16.7	20.0
n-Butylbenzene	Ave	1.667	1.232		0.0148	0.0200	-26.0*	20.0
1,2-Dichlorobenzene	Ave	1.325	1.116	0.4000	0.0169	0.0200	-15.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-328532/4 Calibration Date: 05/25/2018 09:36

Instrument ID: A3UX16 Calib Start Date: 05/08/2018 20:37

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/08/2018 22:59

Lab File ID: UXM11567.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1724	0.1493	0.0500	0.0173	0.0200	-13.4	50.0
1,2,4-Trichlorobenzene	Ave	0.8072	0.5784	0.2000	0.0143	0.0200	-28.3	50.0
Hexachlorobutadiene	Lin1		0.2006		0.0128	0.0200	-36.2*	20.0
Naphthalene	Ave	2.520	1.977		0.0157	0.0200	-21.5	50.0
1,2,3-Trichlorobenzene	Ave	0.7670	0.5375		0.0140	0.0200	-29.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2517	0.2661		0.0211	0.0200	5.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3234	0.3333		0.0206	0.0200	3.0	20.0
Toluene-d8 (Surr)	Ave	1.239	1.181		0.0191	0.0200	-4.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4533	0.4163		0.0184	0.0200	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-328532/6 Calibration Date: 05/25/2018 10:24

Instrument ID: A3UX16 Calib Start Date: 04/20/2018 14:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/20/2018 16:46

Lab File ID: UXM11569.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0355	0.0327		0.184	0.200	-8.0	20.0
Diisopropyl ether	Ave	0.2571	0.2950		0.0229	0.0200	14.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4336	0.4354		0.0201	0.0200	0.4	20.0
Ethyl tert-butyl ether	Ave	0.8305	0.8963		0.0216	0.0200	7.9	20.0
Ethyl acetate	Ave	0.2277	0.2630		0.0462	0.0400	15.5	50.0
Propionitrile	Ave	0.0369	0.0458		0.248	0.200	24.2*	20.0
Methacrylonitrile	Ave	0.1558	0.1722		0.221	0.200	10.5	20.0
Tert-amyl methyl ether	Ave	0.8571	0.9674		0.0226	0.0200	12.9	20.0
n-Butanol	Ave	0.0074	0.0083		0.562	0.500	12.4	20.0
Ethyl acrylate	Ave	0.2893	0.3439		0.0238	0.0200	18.9	20.0
Methyl methacrylate	Ave	0.2105	0.2346		0.0446	0.0400	11.4	20.0
2-Nitropropane	Ave	0.0910	0.0730		0.0321	0.0400	-19.8	20.0
n-Butyl acetate	Ave	0.3636	0.3919		0.0216	0.0200	7.8	20.0
1-Chlorohexane	Ave	0.4054	0.3216		0.0159	0.0200	-20.7*	20.0
Cyclohexanone	Ave	0.0261	0.0183		0.140	0.200	-30.0*	20.0
Pentachloroethane	Ave	0.2335	0.2316		0.0397	0.0400	-0.8	20.0
1,2,3-Trimethylbenzene	Ave	2.571	2.101		0.0163	0.0200	-18.3	20.0
Benzyl chloride	Ave	0.4295	0.2779		0.0129	0.0200	-35.3*	20.0
1,3,5-Trichlorobenzene	Ave	0.8491	0.7084		0.0167	0.0200	-16.6	20.0
2-Methylnaphthalene	Lin1		1.125		0.0362	0.0400	-9.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB4026.D BFB Injection Date: 04/12/2018

Instrument ID: A3UX9 BFB Injection Time: 15:12

Analysis Batch No.: 322332

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	49.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	82.9	
175	5.0 - 9.0 % of mass 174	5.9	(7.1) 1
176	95.0 - 101.0 % of mass 174	79.9	(96.3) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STDA9 240-322332/17	UX970947.D	04/12/2018	19:14
	STDA9 240-322332/18	UX970948.D	04/12/2018	19:38
	STDA9 240-322332/19	UX970949.D	04/12/2018	20:02
	STDA9 240-322332/20	UX970950.D	04/12/2018	20:26
	STDA9 240-322332/21	UX970951.D	04/12/2018	20:51
	STDA9 240-322332/22	UX970952.D	04/12/2018	21:15

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322332

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2018 19:14 Calibration End Date: 04/12/2018 21:15 Calibration ID: 44630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-322332/22	UX970952.D
Level 2	STDA9 240-322332/21	UX970951.D
Level 3	STDA9 240-322332/20	UX970950.D
Level 4	STDA9 240-322332/19	UX970949.D
Level 5	STDA9 240-322332/18	UX970948.D
Level 6	STDA9 240-322332/17	UX970947.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	+++++ 0.0315	0.0467	0.0334	0.0278	0.0317	Lin1	0.1482	0.0307				7.7			0.9970		0.9900
Diisopropyl ether	0.1964 0.2507	0.2429	0.2546	0.2485	0.2520	Ave		0.2409				9.2		20.0			
2-Chloro-1,3-butadiene	0.2960 0.3557	0.3441	0.3423	0.3390	0.3406	Ave		0.3363				6.1		20.0			
Ethyl tert-butyl ether	0.7435 0.8023	0.7063	0.7283	0.7475	0.8090	Ave		0.7562				5.4		20.0			
Ethyl acetate	0.2688 0.2217	0.2742	0.2304	0.2215	0.2225	Ave		0.2399				10.3		20.0			
Propionitrile	0.0369 0.0381	0.0432	0.0384	0.0375	0.0374	Ave		0.0386				6.0		20.0			
Methacrylonitrile	0.1490 0.1411	0.1566	0.1458	0.1407	0.1405	Ave		0.1456				4.4		20.0			
Tert-amyl methyl ether	0.7252 0.8558	0.8225	0.8316	0.8386	0.8418	Ave		0.8193				5.8		20.0			
n-Butanol	0.0076 0.0091	0.0098	0.0084	0.0081	0.0088	Ave		0.0086				8.9		20.0			
Ethyl acrylate	0.3058 0.3428	0.3395	0.3355	0.3341	0.3408	Ave		0.3331				4.1		20.0			
Methyl methacrylate	0.2085 0.2155	0.2262	0.2123	0.2101	0.2118	Ave		0.2140				3.0		20.0			
2-Nitropropane	+++++ 0.0623	0.0604	0.0520	0.0553	0.0608	Ave		0.0581				7.5		20.0			
n-Butyl acetate	0.4575 0.4095	0.4476	0.4007	0.4010	0.4009	Ave		0.4195				6.2		20.0			
1-Chlorohexane	0.4094 0.3798	0.4202	0.3625	0.3499	0.3490	Ave		0.3785				8.1		20.0			
Cyclohexanone	+++++ 0.0191	0.0225	0.0182	0.0178	0.0190	Ave		0.0193				9.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322332

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2018 19:14 Calibration End Date: 04/12/2018 21:15 Calibration ID: 44630

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	+++++ 0.3375	0.2376	0.3004	0.3168	0.3317	Ave		0.3048				13.2		20.0			
1,2,3-Trimethylbenzene	2.0952 2.1358	2.2529	2.1920	2.1931	2.1455	Ave		2.1691				2.5		20.0			
Benzyl chloride	+++++ +++++	0.1881	0.2488	0.2695	0.3003	Ave		0.2667				19.9		20.0			
1,3,5-Trichlorobenzene	0.8318 0.7520	0.9336	0.7846	0.7723	0.7368	Ave		0.8018				9.0		20.0			
2-Methylnaphthalene	+++++ 0.8638	2.4171	1.1804	1.0722	1.0366	Lin1	3.2934	0.9216				13.9			0.9910		0.9900
1-Chloro-1-fluoroethane TIC	0.2026 0.2874	0.2841	0.2666	0.2782	0.2794	None											

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322332

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2018 19:14 Calibration End Date: 04/12/2018 21:15 Calibration ID: 44630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-322332/22	UX970952.D
Level 2	STDA9 240-322332/21	UX970951.D
Level 3	STDA9 240-322332/20	UX970950.D
Level 4	STDA9 240-322332/19	UX970949.D
Level 5	STDA9 240-322332/18	UX970948.D
Level 6	STDA9 240-322332/17	UX970947.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	+++++ 1054055	23992	183651	312942	715106	+++++ 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	5264 840195	12478	140199	279935	568180	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7935 1191750	17675	188482	381885	767847	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	19929 2688457	36284	400992	842062	1823926	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	14411 1485678	28173	253717	499112	1003311	1.00 120	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	9897 1276977	22168	211645	422378	843890	5.00 600	10.0	100	200	400
Methacrylonitrile	FB	Ave	39939 4728698	80466	802763	1585255	3166601	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	19437 2867581	42255	457870	944658	1897905	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	5125 762123	12614	115043	229167	496104	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	8197 1148748	17441	184702	376321	768360	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	11175 1444093	23236	233774	473333	955027	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	+++++ 417515	6205	57272	124485	273965	+++++ 120	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	11178 1250274	21025	201902	404717	833799	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	10002 1159764	19739	182656	353090	725673	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 356391	6374	54003	108260	238610	+++++ 600	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	+++++ 1259698	13454	178402	384786	831367	+++++ 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322332

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2018 19:14 Calibration End Date: 04/12/2018 21:15 Calibration ID: 44630

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	31087 3986084	63772	650927	1331747	2688881	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	+++++ +++++	5324	73874	163635	376364	+++++ +++++	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	12341 1403419	26428	232984	468960	923482	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	+++++ 3224381	136843	701064	1302229	2598420	+++++ 120	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	None	5430 962960	14595	146757	313444	629852	0.500 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
None = No Calib Curve

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322332

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2018 19:14 Calibration End Date: 04/12/2018 21:15 Calibration ID: 44630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-322332/22	UX970952.D
Level 2	STDA9 240-322332/21	UX970951.D
Level 3	STDA9 240-322332/20	UX970950.D
Level 4	STDA9 240-322332/19	UX970949.D
Level 5	STDA9 240-322332/18	UX970948.D
Level 6	STDA9 240-322332/17	UX970947.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	+++++	4.0						50				
2-Methylnaphthalene	+++++	-16.4						50				

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB4089.D BFB Injection Date: 05/16/2018

Instrument ID: A3UX9 BFB Injection Time: 17:19

Analysis Batch No.: 327195

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.3	
75	30.0 - 60.0 % of mass 95	52.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	84.5	
175	5.0 - 9.0 % of mass 174	7.5	(8.9) 1
176	95.0 - 101.0 % of mass 174	81.6	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-327195/8	UX972103.D	05/16/2018	19:09
	STD8260 240-327195/9	UX972104.D	05/16/2018	19:32
	ICIS 240-327195/10	UX972105.D	05/16/2018	19:55
	STD8260 240-327195/11	UX972106.D	05/16/2018	20:18
	STD8260 240-327195/12	UX972107.D	05/16/2018	20:41
	STD8260 240-327195/13	UX972108.D	05/16/2018	21:04
	ICV 240-327195/14	UX972109.D	05/16/2018	21:27

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-327195/13	UX972108.D
Level 2	STD8260 240-327195/12	UX972107.D
Level 3	STD8260 240-327195/11	UX972106.D
Level 4	ICIS 240-327195/10	UX972105.D
Level 5	STD8260 240-327195/9	UX972104.D
Level 6	STD8260 240-327195/8	UX972103.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2823	0.3941	0.2284	0.2846	0.3150	Lin1	0.0575	0.2872			0.1000	17.3			0.9920		0.9900
Chloromethane	0.3272 0.2598	0.3442	0.2801	0.2901	0.2777	Ave		0.2965			0.1000	10.9		20.0			
Vinyl chloride	0.2466 0.2440	0.2494	0.2377	0.2592	0.2642	Ave		0.2502			0.1000	3.9		20.0			
Butadiene	+++++ 0.1813	0.2738	0.1994	0.2270	0.2420	Ave		0.2247				16.1		20.0			
Bromomethane	+++++ 0.2342	0.1897	0.1929	0.2003	0.2359	Ave		0.2106			0.0500	10.8		20.0			
Chloroethane	+++++ 0.1934	0.2237	0.1635	0.1728	0.1973	Ave		0.1901			0.0500	12.3		20.0			
Dichlorofluoromethane	+++++ 0.5055	0.3409	0.4654	0.4863	0.5031	Ave		0.4602				14.9		20.0			
Trichlorofluoromethane	+++++ 0.4327	0.4002	0.3165	0.3883	0.4345	Ave		0.3944			0.1000	12.2		20.0			
Ethyl ether	0.1555 0.1892	0.2192	0.1874	0.1881	0.1861	Ave		0.1876				10.7		20.0			
Acrolein	+++++ 0.0308	0.0464	0.0293	0.0318	0.0311	Lin1	0.0707	0.0305				6.1			0.9990		0.9900
1,1-Dichloroethene	0.4666 0.3970	0.4103	0.3900	0.3958	0.4090	Ave		0.4114			0.1000	6.8		20.0			
Acetone	+++++ 0.0206	0.0676	0.0226	0.0223	0.0176	Lin1	0.0968	0.0186			0.0100	9.3			0.9920		0.9900
1,1,2-Trichlorotrifluoroethane	+++++ 0.2142	0.2485	0.2106	0.1988	0.2226	Ave		0.2189			0.0500	8.5		20.0			
Iodomethane	0.5189 0.3994	0.5769	0.3849	0.4072	0.4110	Ave		0.4497				17.5		20.0			
Carbon disulfide	+++++ 0.6093	1.1449	0.5966	0.6056	0.6392	Lin1	0.4903	0.6023			0.1000	7.9			0.9980		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	+++++ 0.2550	0.2958	0.2440	0.2310	0.2581	Ave		0.2568				9.4		20.0			
Methyl acetate	+++++ 0.1671	0.2970	0.1641	0.1679	0.1545	Lin1	0.2597	0.1592			0.1000	5.5			0.9980		0.9900
Methylene Chloride	+++++ 0.2976	0.5696	0.3182	0.3019	0.3005	Lin1	0.2737	0.2923			0.1000	1.1			1.0000		0.9900
tert-Butyl alcohol	0.0288 0.0231	0.0304	0.0264	0.0257	0.0203	Ave		0.0258				14.3		20.0			
Acrylonitrile	0.0940 0.0948	0.1100	0.0863	0.0933	0.0899	Ave		0.0947				8.6		20.0			
trans-1,2-Dichloroethene	0.3368 0.3333	0.4017	0.3211	0.3201	0.3328	Ave		0.3410			0.1000	9.0		20.0			
Methyl tert-butyl ether	0.8023 0.9122	0.9377	0.7932	0.8353	0.8694	Ave		0.8584			0.1000	6.8		20.0			
Hexane	+++++ 0.1842	0.3090	0.1997	0.1736	0.1985	Lin1	0.1194	0.1846				6.6			0.9970		0.9900
1,1-Dichloroethane	0.3636 0.3872	0.4420	0.3755	0.3839	0.3888	Ave		0.3902			0.2000	6.9		20.0			
Vinyl acetate	+++++ 0.4253	0.6733	0.3867	0.4080	0.4242	Lin1	0.2109	0.4132				9.9			0.9980		0.9900
2-Butanone (MEK)	+++++ 0.0356	0.0442	0.0326	0.0345	0.0348	Ave		0.0364			0.0100	12.4		20.0			
cis-1,2-Dichloroethene	0.3456 0.2870	0.3864	0.2972	0.2893	0.2838	Ave		0.3149			0.1000	13.3		20.0			
2,2-Dichloropropane	+++++ 0.0545	0.1029	0.0501	0.0530	0.0537	Lin1	0.0438	0.0524				10.7			0.9980		0.9900
Bromochloromethane	0.2127 0.1820	0.2642	0.1956	0.1917	0.1853	Ave		0.2053				15.0		20.0			
Tetrahydrofuran	+++++ 0.0663	0.1026	0.0672	0.0651	0.0654	Lin1	0.0714	0.0648				2.7			1.0000		0.9900
Chloroform	0.5190 0.4362	0.5856	0.4358	0.4397	0.4413	Ave		0.4763			0.2000	13.1		20.0			
1,1,1-Trichloroethane	0.3298 0.3110	0.3562	0.3276	0.3219	0.3338	Ave		0.3300			0.1000	4.6		20.0			
Cyclohexane	+++++ 0.2432	0.2449	0.2715	0.2563	0.2569	Ave		0.2545			0.1000	4.5		20.0			
1,1-Dichloropropene	0.3623 0.3137	0.4375	0.3250	0.3183	0.3329	Ave		0.3483				13.5		20.0			
Carbon tetrachloride	0.2670 0.2925	0.3062	0.2953	0.2898	0.3128	Ave		0.2939			0.1000	5.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	+++++ 0.0080	0.0154	0.0085	0.0083	0.0081	Lin1	0.1891	0.0079				0.9			1.0000		0.9900
Benzene	1.1329 0.9828	1.2573	1.0261	1.0176	1.0050	Ave		1.0703			0.5000	9.8		20.0			
1,2-Dichloroethane	0.4477 0.3656	0.4508	0.3742	0.3807	0.3688	Ave		0.3980			0.1000	10.1		20.0			
n-Heptane	+++++ 0.1103	0.3449	0.1304	0.1097	0.1131	Lin1	0.2362	0.1054				4.7			0.9990		0.9900
Trichloroethene	0.3686 0.2914	0.3137	0.3039	0.2850	0.2986	Ave		0.3102			0.1500	9.8		20.0			
Methylcyclohexane	0.3396 0.2718	0.4051	0.2964	0.2568	0.2897	Ave		0.3099			0.1000	17.6		20.0			
1,2-Dichloropropane	0.2093 0.2307	0.2893	0.2424	0.2241	0.2240	Ave		0.2366			0.1000	11.8		20.0			
1,4-Dioxane	+++++ 0.0030	0.0035	0.0027	0.0025	0.0036	Ave		0.0031				16.6		20.0			
Dibromomethane	0.1830 0.1969	0.2199	0.1944	0.1985	0.1912	Ave		0.1973				6.3		20.0			
Bromodichloromethane	0.4263 0.3653	0.3861	0.3570	0.3562	0.3599	Ave		0.3751			0.1500	7.3		20.0			
2-Chloroethyl vinyl ether	0.1623 0.1724	0.1915	0.1766	0.1717	0.1717	Ave		0.1744				5.5		20.0			
cis-1,3-Dichloropropene	0.3548 0.4214	0.4546	0.3981	0.4138	0.4183	Ave		0.4102			0.1500	8.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.3127 0.2403	0.3002	0.2463	0.2410	0.2495	Ave		0.2650			0.0500	12.3		20.0			
Toluene	1.6548 1.2917	1.4451	1.2898	1.2787	1.3717	Ave		1.3886			0.4000	10.5		20.0			
trans-1,3-Dichloropropene	0.3627 0.4587	0.4164	0.4102	0.4259	0.4679	Ave		0.4236			0.1000	8.9		20.0			
Ethyl methacrylate	0.4085 0.4213	0.3799	0.3683	0.3898	0.4402	Ave		0.4013				6.7		20.0			
1,1,2-Trichloroethane	0.3450 0.2783	0.3093	0.2771	0.2718	0.2943	Ave		0.2960			0.1000	9.4		20.0			
1,3-Dichloropropane	0.5454 0.4723	0.6098	0.4615	0.4704	0.4994	Ave		0.5098				11.3		20.0			
Tetrachloroethene	0.2823 0.2894	0.3165	0.2985	0.2885	0.3247	Ave		0.3000			0.1500	5.7		20.0			
2-Hexanone	0.2232 0.1883	0.2751	0.1771	0.1857	0.2122	Ave		0.2103			0.0500	17.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.3179 0.3324	0.3098	0.2883	0.3097	0.3342	Ave		0.3154				5.4		20.0			
1,2-Dibromoethane	0.3299 0.3067	0.2886	0.2958	0.2964	0.3165	Ave		0.3056				5.0		20.0			
Chlorobenzene	1.0212 0.9131	1.0278	0.8909	0.9364	0.9810	Ave		0.9617			0.3000	5.9		20.0			
1,1,1,2-Tetrachloroethane	0.3111 0.3269	0.2813	0.2979	0.3131	0.3376	Ave		0.3113				6.4		20.0			
Ethylbenzene	0.5101 0.4870	0.5584	0.4910	0.4792	0.4967	Ave		0.5037				5.7		20.0			
m-Xylene & p-Xylene	0.6830 0.6268	0.6585	0.5964	0.6001	0.6552	Ave		0.6367				5.5		20.0			
o-Xylene	0.5628 0.6451	0.7375	0.6090	0.6118	0.6596	Ave		0.6376				9.3		20.0			
Styrene	0.9168 1.1837	1.0866	1.0174	1.0482	1.1752	Ave		1.0713			0.3000	9.4		20.0			
Bromoform	+++++ 0.2457	0.1655	0.1616	0.1912	0.2403	Ave		0.2009			0.1000	20.0		20.0			
Isopropylbenzene	1.4004 1.4916	1.4862	1.4178	1.4097	1.5513	Ave		1.4595			0.1000	4.1		20.0			
1,1,2,2-Tetrachloroethane	0.6999 0.5484	0.8274	0.5967	0.6241	0.6242	Ave		0.6534			0.3000	15.1		20.0			
Bromobenzene	0.6652 0.5603	0.7726	0.5779	0.6305	0.6039	Ave		0.6351				12.1		20.0			
1,2,3-Trichloropropane	0.2584 0.2113	0.3031	0.2322	0.2422	0.2501	Ave		0.2496				12.4		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1449	0.1260	0.1269	0.1379	0.1506	Ave		0.1372				7.9		20.0			
N-Propylbenzene	0.5324 0.5354	0.7926	0.5660	0.5807	0.5986	Ave		0.6009				16.2		20.0			
2-Chlorotoluene	0.6480 0.5268	0.6704	0.5594	0.5632	0.5601	Ave		0.5880				9.7		20.0			
1,3,5-Trimethylbenzene	1.8893 1.7159	1.9839	1.7826	1.8123	1.8152	Ave		1.8332				5.1		20.0			
4-Chlorotoluene	0.5321 0.6092	0.7059	0.6138	0.6219	0.6385	Ave		0.6202				9.0		20.0			
tert-Butylbenzene	1.5545 1.4507	1.7469	1.4858	1.4805	1.5121	Ave		1.5384				7.0		20.0			
1,2,4-Trimethylbenzene	1.8211 1.9604	2.5446	1.9515	1.9784	1.9934	Ave		2.0416				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	0.5178 0.4267	0.4808	0.4294	0.4186	0.4428	Ave		0.4527				8.6		20.0			
1,3-Dichlorobenzene	1.2840 1.1794	1.5769	1.1561	1.1922	1.1987	Ave		1.2645			0.6000	12.6		20.0			
4-Isopropyltoluene	1.7296 1.7657	2.0641	1.7596	1.7675	1.8330	Ave		1.8199				6.8		20.0			
1,4-Dichlorobenzene	1.6069 1.2628	1.6612	1.2803	1.2926	1.2914	Ave		1.3992			0.5000	13.1		20.0			
n-Butylbenzene	1.4609 1.3025	1.7679	1.3290	1.3445	1.3711	Ave		1.4293				12.2		20.0			
1,2-Dichlorobenzene	1.2092 1.1851	1.5566	1.1537	1.2086	1.2121	Ave		1.2542			0.4000	11.9		20.0			
1,2-Dibromo-3-Chloropropane	0.1358 0.1571	0.1827	0.1345	0.1491	0.1688	Ave		0.1547			0.0500	12.2		20.0			
1,2,4-Trichlorobenzene	0.7458 0.5930	0.8172	0.6159	0.5943	0.5769	Ave		0.6572			0.2000	15.2		20.0			
Hexachlorobutadiene	0.3727 0.1563	0.3193	0.1937	0.1710	0.1628	Lin1	0.1314	0.1594				19.2			0.9970		0.9900
Naphthalene	2.1981 2.0179	2.7758	2.0693	2.0421	2.0728	Ave		2.1960				13.2		20.0			
1,2,3-Trichlorobenzene	0.6329 0.5656	0.7833	0.5912	0.5762	0.5517	Ave		0.6168				14.0		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2508	0.3163	0.2511	0.2515	0.2462	Ave		0.2632				11.3		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2979	0.4702	0.3072	0.3067	0.2895	Lin1	0.1778	0.2919				2.0			1.0000		0.9900
Toluene-d8 (Surr)	+++++ 1.1253	1.3633	1.0859	1.1026	1.1833	Ave		1.1721				9.6		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4710	0.5303	0.3812	0.4441	0.4655	Ave		0.4584				11.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-327195/13	UX972108.D
Level 2	STD8260 240-327195/12	UX972107.D
Level 3	STD8260 240-327195/11	UX972106.D
Level 4	ICIS 240-327195/10	UX972105.D
Level 5	STD8260 240-327195/9	UX972104.D
Level 6	STD8260 240-327195/8	UX972103.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Lin1	+++++ 934260	13799	106182	279189	677461	+++++ 60.0	1.00	10.0	20.0	40.0
Chloromethane	FB	Ave	6404 859707	12051	130202	284599	597388	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl chloride	FB	Ave	4827 807350	8733	110484	254262	568270	0.500 60.0	1.00	10.0	20.0	40.0
Butadiene	FB	Ave	+++++ 599913	9587	92707	222678	520575	+++++ 60.0	1.00	10.0	20.0	40.0
Bromomethane	FB	Ave	+++++ 774900	6641	89656	196479	507310	+++++ 60.0	1.00	10.0	20.0	40.0
Chloroethane	FB	Ave	+++++ 640042	7833	75984	169494	424355	+++++ 60.0	1.00	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	+++++ 1672700	11934	216324	477043	1082053	+++++ 60.0	1.00	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	+++++ 1431745	14012	147126	380907	934685	+++++ 60.0	1.00	10.0	20.0	40.0
Ethyl ether	FB	Ave	3044 626108	7674	87126	184469	400259	0.500 60.0	1.00	10.0	20.0	40.0
Acrolein	FB	Lin1	+++++ 508821	8115	68008	155893	334376	+++++ 300	5.00	50.0	100	200
1,1-Dichloroethene	FB	Ave	9133 1313883	14364	181299	388252	879648	0.500 60.0	1.00	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 136157	4734	20973	43730	75841	+++++ 120	2.00	20.0	40.0	80.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	+++++ 708820	8700	97893	195036	478728	+++++ 60.0	1.00	10.0	20.0	40.0
Iodomethane	FB	Ave	10156 1321660	20200	178906	399475	884036	0.500 60.0	1.00	10.0	20.0	40.0
Carbon disulfide	FB	Lin1	+++++ 2016354	40085	277334	594019	1374815	+++++ 60.0	1.00	10.0	20.0	40.0
3-Chloro-1-propene	FB	Ave	+++++ 844013	10357	113432	226602	555156	+++++ 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Lin1	+++++ 1105824	20800	152540	329365	664569	+++++ 120	2.00	20.0	40.0	80.0
Methylene Chloride	FB	Lin1	+++++ 984696	19944	147924	296178	646311	+++++ 60.0	1.00	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	5640 765478	10651	122698	252316	437486	5.00 600	10.0	100	200	400
Acrylonitrile	FB	Ave	18393 3137981	38498	401175	915257	1933535	5.00 600	10.0	100	200	400
trans-1,2-Dichloroethene	FB	Ave	6592 1102834	14066	149260	313994	715774	0.500 60.0	1.00	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	15703 3018560	32832	368734	819416	1870058	0.500 60.0	1.00	10.0	20.0	40.0
Hexane	FB	Lin1	+++++ 609696	10818	92845	170314	427047	+++++ 60.0	1.00	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	7117 1281485	15475	174550	376600	836263	0.500 60.0	1.00	10.0	20.0	40.0
Vinyl acetate	FB	Lin1	+++++ 1407545	23572	179762	400189	912512	+++++ 60.0	1.00	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	+++++ 235682	3095	30318	67703	149878	+++++ 120	2.00	20.0	40.0	80.0
cis-1,2-Dichloroethene	FB	Ave	6765 949785	13529	138170	283792	610478	0.500 60.0	1.00	10.0	20.0	40.0
2,2-Dichloropropane	FB	Lin1	+++++ 180402	3603	23278	51976	115511	+++++ 60.0	1.00	10.0	20.0	40.0
Bromochloromethane	FB	Ave	4163 602354	9251	90942	188014	398533	0.500 60.0	1.00	10.0	20.0	40.0
Tetrahydrofuran	FB	Lin1	+++++ 438533	7186	62484	127687	281464	+++++ 120	2.00	20.0	40.0	80.0
Chloroform	FB	Ave	10158 1443532	20504	202590	431332	949221	0.500 60.0	1.00	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	6455 1029185	12473	152269	315717	718021	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexane	FB	Ave	+++++ 804680	8573	126193	251391	552622	+++++ 60.0	1.00	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	7091 1038199	15317	151084	312251	716050	0.500 60.0	1.00	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	5227 967916	10722	137261	284280	672881	0.500 60.0	1.00	10.0	20.0	40.0
Isobutyl alcohol	FB	Lin1	+++++ 658027	13520	99204	203840	436106	+++++ 1500	25.0	250	500	1000
Benzene	FB	Ave	22175 3252243	44019	476994	998160	2161689	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	8763 1210006	15785	173966	373394	793191	0.500 60.0	1.00	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 365021	12075	60600	107639	243373	+++++ 60.0	1.00	10.0	20.0	40.0
Trichloroethene	FB	Ave	7214 964420	10983	141257	279567	642252	0.500 60.0	1.00	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	6647 899454	14182	137773	251911	623042	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	4097 763381	10130	112671	219782	481783	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 201859	2474	24779	48208	154721	+++++ 1200	20.0	200	400	800
Dibromomethane	FB	Ave	3581 651695	7700	90355	194750	411200	0.500 60.0	1.00	10.0	20.0	40.0
Bromodichloromethane	FB	Ave	8344 1208893	13518	165936	349406	774119	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6355 1141219	13407	164170	336874	738569	1.00 120	2.00	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	6944 1394520	15915	185064	405944	899684	0.500 60.0	1.00	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	12240 1590088	21024	229021	472822	1073140	1.00 120	2.00	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	29550 4118692	48908	573625	1201967	2659223	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	6477 1462658	14091	182409	400299	907073	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	7294 1343311	12858	163784	366415	853294	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6161 887520	10468	123233	255535	570450	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	9740 1505880	20636	205243	442164	968223	0.500 60.0	1.00	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5041 922864	10712	132734	271156	629517	0.500 60.0	1.00	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	7971 1200894	18620	157522	349084	822904	1.00 120	2.00	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5677 1059806	10484	128227	291141	647851	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	5891 977963	9766	131533	278588	613625	0.500 60.0	1.00	10.0	20.0	40.0
Chlorobenzene	CBNZ d5	Ave	18236 2911525	34783	396190	880169	1901869	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5555 1042443	9521	132502	294331	654448	0.500 60.0	1.00	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9110 1552905	18897	218379	450424	962999	0.500 60.0	1.00	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12197 1998612	22286	265241	564134	1270218	0.500 60.0	1.00	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10050 2056979	24961	270823	575098	1278678	0.500 60.0	1.00	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	16371 3774535	36773	452444	985280	2278208	0.500 60.0	1.00	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 783500	5601	71875	179717	465893	+++++ 60.0	1.00	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	25008 4756406	50299	630526	1325093	3007416	0.500 60.0	1.00	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7466 1391319	16524	174431	395235	893364	0.500 60.0	1.00	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7096 1421475	15430	168925	399285	864246	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2757 536204	6053	67887	153361	357879	0.500 60.0	1.00	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 367635	2517	37086	87310	215481	+++++ 60.0	1.00	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	5680 1358260	15829	165432	367727	856692	0.500 60.0	1.00	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	6913 1336672	13390	163509	356668	801550	0.500 60.0	1.00	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	20155 4353511	39623	521057	1147722	2597802	0.500 60.0	1.00	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	5676 1545533	14098	179420	393829	913721	0.500 60.0	1.00	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	16583 3680723	34889	434292	937564	2164022	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	19427 4973724	50820	570427	1252935	2852808	0.500 60.0	1.00	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	5524 1082612	9603	125519	265108	633673	0.500 60.0	1.00	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	13697 2992191	31493	337932	755040	1715504	0.500 60.0	1.00	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	18451 4479741	41224	514348	1119382	2623170	0.500 60.0	1.00	10.0	20.0	40.0
1,4-Dichlorobenzene	DCBd 4	Ave	17142 3203884	33178	374237	818595	1848098	0.500 60.0	1.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	15585 3304724	35309	388480	851484	1962218	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	12899 3006800	31089	337223	765394	1734625	0.500 60.0	1.00	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1449 398561	3648	39306	94407	241548	0.500 60.0	1.00	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	7956 1504481	16321	180029	376399	825598	0.500 60.0	1.00	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Lin1	3976 396482	6378	56613	108306	233013	0.500 60.0	1.00	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	23449 5119638	55438	604860	1293278	2966375	0.500 60.0	1.00	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	6752 1435070	15645	172797	364893	789573	0.500 60.0	1.00	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 829972	11076	116712	246722	529507	+++++ 60.0	1.00	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Lin1	+++++ 985853	16461	142796	300863	622596	+++++ 60.0	1.00	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3588247	46137	482924	1036448	2294036	+++++ 60.0	1.00	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1501785	17946	169527	417448	902472	+++++ 60.0	1.00	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 327195

SDG No.:

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2018 19:09 Calibration End Date: 05/16/2018 21:04 Calibration ID: 45175

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-327195/13	UX972108.D
Level 2	STD8260 240-327195/12	UX972107.D
Level 3	STD8260 240-327195/11	UX972106.D
Level 4	ICIS 240-327195/10	UX972105.D
Level 5	STD8260 240-327195/9	UX972104.D
Level 6	STD8260 240-327195/8	UX972103.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	+++++	17.2						50				
Acrolein	+++++	5.7						50				
Acetone	+++++	3.3						50				
Carbon disulfide	+++++	8.7						50				
Methyl acetate	+++++	5.0						50				
Methylene Chloride	+++++	1.2						50				
Hexane	+++++	2.7						50				
Vinyl acetate	+++++	11.9						50				
2,2-Dichloropropane	+++++	12.8						50				
Tetrahydrofuran	+++++	3.3						50				
Isobutyl alcohol	+++++	0.2						50				
n-Heptane	+++++	3.1						50				
Hexachlorobutadiene	-31.0						50					
1,2-Dichloroethane-d4 (Surr)	+++++	0.2						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-327195/14 Calibration Date: 05/16/2018 21:27

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.2255	0.1000	0.0155	0.0200	-22.5	30.0
Chloromethane	Ave	0.2965	0.2911	0.1000	0.0196	0.0200	-1.8	30.0
Vinyl chloride	Ave	0.2502	0.2519	0.1000	0.0201	0.0200	0.7	30.0
Butadiene	Ave	0.2247	0.1911		0.0170	0.0200	-15.0	30.0
Bromomethane	Ave	0.2106	0.2023	0.0500	0.0192	0.0200	-3.9	30.0
Chloroethane	Ave	0.1901	0.1804	0.0500	0.0190	0.0200	-5.1	30.0
Dichlorofluoromethane	Ave	0.4602	0.5122		0.0223	0.0200	11.3	30.0
Trichlorofluoromethane	Ave	0.3944	0.3618	0.1000	0.0183	0.0200	-8.3	30.0
Ethyl ether	Ave	0.1876	0.2201		0.0235	0.0200	17.3	30.0
Acrolein	Lin1		0.0254		0.0811	0.100	-18.9	50.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2189	0.1730	0.0500	0.0158	0.0200	-21.0	30.0
1,1-Dichloroethene	Ave	0.4114	0.4392	0.1000	0.0213	0.0200	6.7	30.0
Acetone	Lin1		0.0236	0.0100	0.0456	0.0400	14.0	50.0
Iodomethane	Ave	0.4497	0.4102		0.0182	0.0200	-8.8	30.0
Carbon disulfide	Lin1		0.6479	0.1000	0.0207	0.0200	3.5	30.0
3-Chloro-1-propene	Ave	0.2568	0.2468		0.0192	0.0200	-3.9	30.0
Methyl acetate	Lin1		0.1695	0.1000	0.0410	0.0400	2.4	30.0
Methylene Chloride	Lin1		0.3175	0.1000	0.0208	0.0200	3.9	50.0
tert-Butyl alcohol	Ave	0.0258	0.0255		0.198	0.200	-1.2	50.0
Acrylonitrile	Ave	0.0947	0.0913		0.193	0.200	-3.6	30.0
Methyl tert-butyl ether	Ave	0.8584	0.8126	0.1000	0.0189	0.0200	-5.3	30.0
trans-1,2-Dichloroethene	Ave	0.3410	0.3322	0.1000	0.0195	0.0200	-2.6	30.0
Hexane	Lin1		0.1901		0.0199	0.0200	-0.3	30.0
1,1-Dichloroethane	Ave	0.3902	0.3973	0.2000	0.0204	0.0200	1.8	30.0
Vinyl acetate	Lin1		0.4376		0.0207	0.0200	3.3	50.0
2-Butanone (MEK)	Ave	0.0364	0.0322	0.0100	0.0355	0.0400	-11.4	30.0
cis-1,2-Dichloroethene	Ave	0.3149	0.3003	0.1000	0.0191	0.0200	-4.6	30.0
2,2-Dichloropropane	Lin1		0.0542		0.0199	0.0200	-0.7	30.0
Bromochloromethane	Ave	0.2053	0.2025		0.0197	0.0200	-1.4	30.0
Tetrahydrofuran	Lin1		0.0675		0.0406	0.0400	1.4	30.0
Chloroform	Ave	0.4763	0.4583	0.2000	0.0192	0.0200	-3.8	30.0
1,1,1-Trichloroethane	Ave	0.3300	0.3275	0.1000	0.0198	0.0200	-0.8	30.0
Cyclohexane	Ave	0.2545	0.2557	0.1000	0.0201	0.0200	0.4	30.0
1,1-Dichloropropene	Ave	0.3483	0.3186		0.0183	0.0200	-8.5	30.0
Carbon tetrachloride	Ave	0.2939	0.2802	0.1000	0.0191	0.0200	-4.7	30.0
Isobutyl alcohol	Lin1		0.0078		0.468	0.500	-6.3	30.0
1,2-Dichloroethane	Ave	0.3980	0.3864	0.1000	0.0194	0.0200	-2.9	30.0
Benzene	Ave	1.070	1.024	0.5000	0.0191	0.0200	-4.3	30.0
n-Heptane	Lin1		0.1173		0.0200	0.0200	0.1	30.0
Trichloroethene	Ave	0.3102	0.2877	0.1500	0.0185	0.0200	-7.3	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-327195/14 Calibration Date: 05/16/2018 21:27

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3099	0.2620	0.1000	0.0169	0.0200	-15.5	30.0
1,2-Dichloropropane	Ave	0.2366	0.2426	0.1000	0.0205	0.0200	2.5	30.0
1,4-Dioxane	Ave	0.0031	0.0027		0.352	0.400	-12.0	50.0
Dibromomethane	Ave	0.1973	0.1878		0.0190	0.0200	-4.8	30.0
Bromodichloromethane	Ave	0.3751	0.3708	0.1500	0.0198	0.0200	-1.2	30.0
2-Chloroethyl vinyl ether	Ave	0.1744	0.1769		0.0203	0.0200	1.4	30.0
cis-1,3-Dichloropropene	Ave	0.4102	0.4433	0.1500	0.0216	0.0200	8.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2650	0.2332	0.0500	0.0352	0.0400	-12.0	30.0
Toluene	Ave	1.389	1.278	0.4000	0.0184	0.0200	-8.0	30.0
trans-1,3-Dichloropropene	Ave	0.4236	0.4248	0.1000	0.0201	0.0200	0.3	30.0
Ethyl methacrylate	Ave	0.4013	0.3902		0.0194	0.0200	-2.8	30.0
1,1,2-Trichloroethane	Ave	0.2960	0.2814	0.1000	0.0190	0.0200	-4.9	30.0
1,3-Dichloropropane	Ave	0.5098	0.4879		0.0191	0.0200	-4.3	30.0
Tetrachloroethene	Ave	0.3000	0.2830	0.1500	0.0189	0.0200	-5.6	30.0
2-Hexanone	Ave	0.2103	0.1770	0.0500	0.0337	0.0400	-15.8	30.0
Chlorodibromomethane	Ave	0.3154	0.2849		0.0181	0.0200	-9.7	30.0
1,2-Dibromoethane	Ave	0.3056	0.2940		0.0192	0.0200	-3.8	30.0
Chlorobenzene	Ave	0.9617	0.9167	0.3000	0.0191	0.0200	-4.7	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3113	0.3176		0.0204	0.0200	2.0	30.0
Ethylbenzene	Ave	0.5037	0.4823		0.0191	0.0200	-4.3	30.0
m-Xylene & p-Xylene	Ave	0.6367	0.5954		0.0187	0.0200	-6.5	30.0
o-Xylene	Ave	0.6376	0.6107		0.0192	0.0200	-4.2	30.0
Styrene	Ave	1.071	1.064	0.3000	0.0199	0.0200	-0.7	30.0
Bromoform	Ave	0.2009	0.1811	0.1000	0.0180	0.0200	-9.8	30.0
Isopropylbenzene	Ave	1.460	1.436	0.1000	0.0197	0.0200	-1.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6534	0.6036	0.3000	0.0185	0.0200	-7.6	30.0
Bromobenzene	Ave	0.6351	0.6114		0.0193	0.0200	-3.7	30.0
1,2,3-Trichloropropane	Ave	0.2496	0.2334		0.0187	0.0200	-6.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1372	0.1369		0.0200	0.0200	-0.2	30.0
N-Propylbenzene	Ave	0.6009	0.6031		0.0201	0.0200	0.4	30.0
2-Chlorotoluene	Ave	0.5880	0.5558		0.0189	0.0200	-5.5	30.0
1,3,5-Trimethylbenzene	Ave	1.833	1.768		0.0193	0.0200	-3.5	30.0
4-Chlorotoluene	Ave	0.6202	0.6104		0.0197	0.0200	-1.6	30.0
tert-Butylbenzene	Ave	1.538	1.580		0.0205	0.0200	2.7	30.0
1,2,4-Trimethylbenzene	Ave	2.042	1.943		0.0190	0.0200	-4.8	30.0
sec-Butylbenzene	Ave	0.4527	0.4215		0.0186	0.0200	-6.9	30.0
1,3-Dichlorobenzene	Ave	1.265	1.177	0.6000	0.0186	0.0200	-6.9	30.0
4-Isopropyltoluene	Ave	1.820	1.775		0.0195	0.0200	-2.5	30.0
1,4-Dichlorobenzene	Ave	1.399	1.248	0.5000	0.0178	0.0200	-10.8	30.0
n-Butylbenzene	Ave	1.429	1.333		0.0187	0.0200	-6.7	30.0
1,2-Dichlorobenzene	Ave	1.254	1.197	0.4000	0.0191	0.0200	-4.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-327195/14 Calibration Date: 05/16/2018 21:27

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1547	0.1354	0.0500	0.0175	0.0200	-12.5	50.0
1,2,4-Trichlorobenzene	Ave	0.6572	0.6283	0.2000	0.0191	0.0200	-4.4	50.0
Hexachlorobutadiene	Lin1		0.1807		0.0218	0.0200	9.2	30.0
Naphthalene	Ave	2.196	2.133		0.0194	0.0200	-2.9	50.0
1,2,3-Trichlorobenzene	Ave	0.6168	0.5949		0.0193	0.0200	-3.5	30.0
Dibromofluoromethane (Surr)	Ave	0.2632	0.2134		0.0162	0.0200	-18.9	30.0
1,2-Dichloroethane-d4 (Surr)	Lin1		0.2751		0.0182	0.0200	-8.8	30.0
Toluene-d8 (Surr)	Ave	1.172	1.041		0.0178	0.0200	-11.2	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4584	0.4166		0.0182	0.0200	-9.1	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: BFB4104.D BFB Injection Date: 05/18/2018

Instrument ID: A3UX9 BFB Injection Time: 16:39

Analysis Batch No.: 327569

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.8	
75	30.0 - 60.0 % of mass 95	58.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.1	
175	5.0 - 9.0 % of mass 174	7.8	(8.4) 1
176	95.0 - 101.0 % of mass 174	89.5	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.1	(5.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-327569/3	UX972153.D	05/18/2018	17:08
	LCS 240-327569/4	UX972154.D	05/18/2018	17:31
	CCV 240-327569/5	UX972155.D	05/18/2018	17:53
	MB 240-327569/7	UX972157.D	05/18/2018	18:39
TB-050718	240-95314-1	UX972164.D	05/18/2018	21:20
MT-MW07S-050718	240-95314-2	UX972165.D	05/18/2018	21:44
MT-MW08S-050718	240-95314-3	UX972166.D	05/18/2018	22:07
MT-MW03S-050718	240-95314-4	UX972167.D	05/18/2018	22:30
MT-MW12S-050818	240-95314-5	UX972168.D	05/18/2018	22:53
MT-MW05S-050818	240-95314-6	UX972169.D	05/18/2018	23:16
MT-MW06S-050818	240-95314-7	UX972170.D	05/18/2018	23:39

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327569/3 Calibration Date: 05/18/2018 17:08

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972153.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin1		0.3131	0.1000	0.0216	0.0200	8.0	20.0
Chloromethane	Ave	0.2965	0.2862	0.1000	0.0193	0.0200	-3.5	20.0
Vinyl chloride	Ave	0.2502	0.2799	0.1000	0.0224	0.0200	11.9	20.0
Butadiene	Ave	0.2247	0.2345		0.0209	0.0200	4.3	20.0
Bromomethane	Ave	0.2106	0.2066	0.0500	0.0196	0.0200	-1.9	20.0
Chloroethane	Ave	0.1901	0.1798	0.0500	0.0189	0.0200	-5.4	20.0
Dichlorofluoromethane	Ave	0.4602	0.4746		0.0206	0.0200	3.1	20.0
Trichlorofluoromethane	Ave	0.3944	0.4368	0.1000	0.0221	0.0200	10.7	20.0
Ethyl ether	Ave	0.1876	0.1952		0.0208	0.0200	4.0	20.0
Acrolein	Lin1		0.0293		0.0938	0.100	-6.2	50.0
1,1-Dichloroethene	Ave	0.4114	0.4008	0.1000	0.0195	0.0200	-2.6	20.0
Acetone	Lin1		0.0227	0.0100	0.0436	0.0400	9.0	50.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2189	0.2487	0.0500	0.0227	0.0200	13.6	20.0
Iodomethane	Ave	0.4497	0.3972		0.0177	0.0200	-11.7	20.0
Carbon disulfide	Lin1		0.5758	0.1000	0.0183	0.0200	-8.5	20.0
3-Chloro-1-propene	Ave	0.2568	0.2411		0.0188	0.0200	-6.1	20.0
Methyl acetate	Lin1		0.1559	0.1000	0.0376	0.0400	-6.1	20.0
Methylene Chloride	Lin1		0.3115	0.1000	0.0204	0.0200	1.9	50.0
tert-Butyl alcohol	Ave	0.0258	0.0226		0.175	0.200	-12.4	50.0
Acrylonitrile	Ave	0.0947	0.0827		0.175	0.200	-12.7	20.0
Methyl tert-butyl ether	Ave	0.8584	0.7747	0.1000	0.0181	0.0200	-9.7	20.0
trans-1,2-Dichloroethene	Ave	0.3410	0.2901	0.1000	0.0170	0.0200	-14.9	20.0
Hexane	Lin1		0.2011		0.0211	0.0200	5.7	20.0
1,1-Dichloroethane	Ave	0.3902	0.3706	0.2000	0.0190	0.0200	-5.0	20.0
Vinyl acetate	Lin1		0.4134		0.0195	0.0200	-2.5	50.0
2,2-Dichloropropane	Lin1		0.0515		0.0188	0.0200	-5.9	20.0
2-Butanone (MEK)	Ave	0.0364	0.0342	0.0100	0.0376	0.0400	-5.9	20.0
cis-1,2-Dichloroethene	Ave	0.3149	0.2890	0.1000	0.0184	0.0200	-8.2	20.0
Bromochloromethane	Ave	0.2053	0.1933		0.0188	0.0200	-5.8	20.0
Tetrahydrofuran	Lin1		0.0628		0.0377	0.0400	-5.8	20.0
Chloroform	Ave	0.4763	0.4416	0.2000	0.0185	0.0200	-7.3	20.0
1,1,1-Trichloroethane	Ave	0.3300	0.3103	0.1000	0.0188	0.0200	-6.0	20.0
Cyclohexane	Ave	0.2545	0.2878	0.1000	0.0226	0.0200	13.1	20.0
1,1-Dichloropropene	Ave	0.3483	0.3291		0.0189	0.0200	-5.5	20.0
Carbon tetrachloride	Ave	0.2939	0.2946	0.1000	0.0200	0.0200	0.2	20.0
Isobutyl alcohol	Lin1		0.0070		0.423	0.500	-15.4	20.0
1,2-Dichloroethane	Ave	0.3980	0.3707	0.1000	0.0186	0.0200	-6.9	20.0
Benzene	Ave	1.070	1.004	0.5000	0.0188	0.0200	-6.2	20.0
n-Heptane	Lin1		0.1302		0.0225	0.0200	12.3	20.0
Trichloroethene	Ave	0.3102	0.2898	0.1500	0.0187	0.0200	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327569/3 Calibration Date: 05/18/2018 17:08

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972153.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3099	0.3074	0.1000	0.0198	0.0200	-0.8	20.0
1,2-Dichloropropane	Ave	0.2366	0.2263	0.1000	0.0191	0.0200	-4.4	20.0
1,4-Dioxane	Ave	0.0031	0.0025		0.331	0.400	-17.3	50.0
Dibromomethane	Ave	0.1973	0.1961		0.0199	0.0200	-0.6	20.0
Bromodichloromethane	Ave	0.3751	0.3472	0.1500	0.0185	0.0200	-7.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1744	0.1676		0.0385	0.0400	-3.9	20.0
cis-1,3-Dichloropropene	Ave	0.4102	0.4139	0.1500	0.0202	0.0200	0.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2650	0.2208	0.0500	0.0333	0.0400	-16.7	20.0
Toluene	Ave	1.389	1.255	0.4000	0.0181	0.0200	-9.6	20.0
trans-1,3-Dichloropropene	Ave	0.4236	0.4028	0.1000	0.0190	0.0200	-4.9	20.0
Ethyl methacrylate	Ave	0.4013	0.3703		0.0185	0.0200	-7.7	20.0
1,1,2-Trichloroethane	Ave	0.2960	0.2686	0.1000	0.0181	0.0200	-9.3	20.0
1,3-Dichloropropane	Ave	0.5098	0.4595		0.0180	0.0200	-9.9	20.0
Tetrachloroethene	Ave	0.3000	0.3017	0.1500	0.0201	0.0200	0.6	20.0
2-Hexanone	Ave	0.2103	0.1645	0.0500	0.0313	0.0400	-21.8*	20.0
Chlorodibromomethane	Ave	0.3154	0.2753		0.0175	0.0200	-12.7	20.0
1,2-Dibromoethane	Ave	0.3056	0.2969		0.0194	0.0200	-2.9	20.0
Chlorobenzene	Ave	0.9617	0.8930	0.3000	0.0186	0.0200	-7.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3113	0.2992		0.0192	0.0200	-3.9	20.0
Ethylbenzene	Ave	0.5037	0.4871		0.0193	0.0200	-3.3	20.0
m-Xylene & p-Xylene	Ave	0.6367	0.5859		0.0184	0.0200	-8.0	20.0
o-Xylene	Ave	0.6376	0.5820		0.0183	0.0200	-8.7	20.0
Styrene	Ave	1.071	1.040	0.3000	0.0194	0.0200	-2.9	20.0
Bromoform	Ave	0.2009	0.1753	0.1000	0.0175	0.0200	-12.7	20.0
Isopropylbenzene	Ave	1.460	1.392	0.1000	0.0191	0.0200	-4.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6534	0.5765	0.3000	0.0176	0.0200	-11.8	20.0
Bromobenzene	Ave	0.6351	0.6157		0.0194	0.0200	-3.0	20.0
1,2,3-Trichloropropane	Ave	0.2496	0.2315		0.0186	0.0200	-7.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1372	0.1437		0.0209	0.0200	4.7	20.0
N-Propylbenzene	Ave	0.6009	0.6162		0.0205	0.0200	2.5	20.0
2-Chlorotoluene	Ave	0.5880	0.5858		0.0199	0.0200	-0.4	20.0
1,3,5-Trimethylbenzene	Ave	1.833	1.802		0.0197	0.0200	-1.7	20.0
4-Chlorotoluene	Ave	0.6202	0.6387		0.0206	0.0200	3.0	20.0
tert-Butylbenzene	Ave	1.538	1.589		0.0207	0.0200	3.3	20.0
1,2,4-Trimethylbenzene	Ave	2.042	1.966		0.0193	0.0200	-3.7	20.0
sec-Butylbenzene	Ave	0.4527	0.4453		0.0197	0.0200	-1.6	20.0
1,3-Dichlorobenzene	Ave	1.265	1.209	0.6000	0.0191	0.0200	-4.4	20.0
4-Isopropyltoluene	Ave	1.820	1.836		0.0202	0.0200	0.9	20.0
1,4-Dichlorobenzene	Ave	1.399	1.241	0.5000	0.0177	0.0200	-11.3	20.0
n-Butylbenzene	Ave	1.429	1.390		0.0195	0.0200	-2.7	20.0
1,2-Dichlorobenzene	Ave	1.254	1.171	0.4000	0.0187	0.0200	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327569/5 Calibration Date: 05/18/2018 17:53

Instrument ID: A3UX9 Calib Start Date: 04/12/2018 19:14

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 04/12/2018 21:15

Lab File ID: UX972155.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0277		0.176	0.200	-12.1	20.0
Diisopropyl ether	Ave	0.2409	0.2332		0.0194	0.0200	-3.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3363	0.3356		0.0200	0.0200	-0.2	20.0
Ethyl tert-butyl ether	Ave	0.7562	0.6949		0.0184	0.0200	-8.1	20.0
Ethyl acetate	Ave	0.2399	0.2348		0.0392	0.0400	-2.1	50.0
Propionitrile	Ave	0.0386	0.0365		0.189	0.200	-5.5	20.0
Methacrylonitrile	Ave	0.1456	0.1516		0.208	0.200	4.1	20.0
Tert-amyl methyl ether	Ave	0.8193	0.8367		0.0204	0.0200	2.1	20.0
n-Butanol	Ave	0.0086	0.0066		0.382	0.500	-23.5*	20.0
Ethyl acrylate	Ave	0.3331	0.3370		0.0202	0.0200	1.2	20.0
Methyl methacrylate	Ave	0.2140	0.2328		0.0435	0.0400	8.8	20.0
2-Nitropropane	Ave	0.0581	0.0331		0.0228	0.0400	-43.0*	20.0
n-Butyl acetate	Ave	0.4195	0.4061		0.0194	0.0200	-3.2	20.0
1-Chlorohexane	Ave	0.3785	0.3631		0.0192	0.0200	-4.1	20.0
Cyclohexanone	Ave	0.0193	0.0153		0.158	0.200	-20.9*	20.0
Pentachloroethane	Ave	0.3048	0.3083		0.0405	0.0400	1.1	20.0
1,2,3-Trimethylbenzene	Ave	2.169	2.151		0.0198	0.0200	-0.8	20.0
Benzyl chloride	Ave	0.2667	0.2111		0.0158	0.0200	-20.9*	20.0
1,3,5-Trichlorobenzene	Ave	0.8018	0.7075		0.0176	0.0200	-11.8	20.0
2-Methylnaphthalene	Lin1		1.083		0.0434	0.0400	8.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVIS 240-327569/3 Calibration Date: 05/18/2018 17:08

Instrument ID: A3UX9 Calib Start Date: 05/16/2018 19:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2018 21:04

Lab File ID: UX972153.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1547	0.1203	0.0500	0.0156	0.0200	-22.2	50.0
1,2,4-Trichlorobenzene	Ave	0.6572	0.6966	0.2000	0.0212	0.0200	6.0	50.0
Hexachlorobutadiene	Lin1		0.2032		0.0247	0.0200	23.4*	20.0
Naphthalene	Ave	2.196	2.173		0.0198	0.0200	-1.0	50.0
1,2,3-Trichlorobenzene	Ave	0.6168	0.6672		0.0216	0.0200	8.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2632	0.2201		0.0167	0.0200	-16.4	20.0
1,2-Dichloroethane-d4 (Surr)	Lin1		0.2640		0.0175	0.0200	-12.6	20.0
Toluene-d8 (Surr)	Ave	1.172	1.009		0.0172	0.0200	-13.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4584	0.4042		0.0176	0.0200	-11.8	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: ICIS 240-323374/12 Date Analyzed: 04/20/2018 12:04

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM10700.D Heated Purge: (Y/N) N

Calibration ID: 44812

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1176495	5.81	823507	8.50	425732	10.74
UPPER LIMIT		2352990	6.31	1647014	9.00	851464	11.24
LOWER LIMIT		588248	5.31	411754	8.00	212866	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-323374/25		1097672	5.81	797809	8.50	446012	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: ICIS 240-325908/12 Date Analyzed: 05/08/2018 21:49

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM11111.D Heated Purge: (Y/N) N

Calibration ID: 45035

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1052301	5.81	847140	8.50	488587	10.74
UPPER LIMIT		2104602	6.31	1694280	9.00	977174	11.24
LOWER LIMIT		526151	5.31	423570	8.00	244294	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-325908/16		995207	5.81	818989	8.50	499890	10.74
CCVIS 240-327925/4		920421	5.81	838315	8.50	488694	10.74
CCVIS 240-328313/4		861430	5.81	771653	8.50	476375	10.74
CCVIS 240-328532/4		901773	5.81	827725	8.50	490631	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVIS 240-327925/4 Date Analyzed: 05/22/2018 08:40

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM11468.D Heated Purge: (Y/N) N

Calibration ID: 45035

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		920421	5.81	838315	8.50	488694	10.74
UPPER LIMIT		1840842	6.31	1676630	9.00	977388	11.24
LOWER LIMIT		460211	5.31	419158	8.00	244347	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-327925/5		857975	5.81	765276	8.50	452347	10.74
CCV 240-327925/6		948894	5.81	842030	8.50	496854	10.74
MB 240-327925/9		850462	5.81	753584	8.50	436141	10.74
240-95494-1	TB-050918	918428	5.81	810693	8.50	490725	10.74
240-95494-2	MT-MW11S-050918	922860	5.81	823325	8.50	487770	10.74
240-95494-3	MT-MW04S-050918	908977	5.81	800632	8.50	489604	10.74
240-95494-4	MT-MW10S-050918	942873	5.81	828172	8.50	491596	10.74
240-95494-5	MT-MW02S-051018	950706	5.81	843371	8.50	515312	10.74
240-95494-6	MT-MW01S-051018	952502	5.81	827138	8.50	497652	10.74
240-95494-7	MT-MW09S-051018	933136	5.81	830388	8.50	491066	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVIS 240-328313/4 Date Analyzed: 05/24/2018 08:45

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM11536.D Heated Purge: (Y/N) N

Calibration ID: 45035

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		861430	5.81	771653	8.50	476375	10.74
UPPER LIMIT		1722860	6.31	1543306	9.00	952750	11.24
LOWER LIMIT		430715	5.31	385827	8.00	238188	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328313/5		921934	5.81	836927	8.50	507281	10.74
CCV 240-328313/6		930295	5.81	844845	8.50	503580	10.74
MB 240-328313/9		881568	5.81	795178	8.50	479597	10.74
240-95580-1	TB-051418	900523	5.81	824093	8.50	492848	10.74
240-95580-2	MSA-MW-36S-051418	907989	5.81	824839	8.50	497513	10.74
240-95580-3	MSA-MW-37S-051418	904496	5.81	815466	8.50	492735	10.74
240-95580-4	MSA-MW-35S-051418	865405	5.81	785911	8.50	463016	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVIS 240-328532/4 Date Analyzed: 05/25/2018 09:36

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM11567.D Heated Purge: (Y/N) N

Calibration ID: 45035

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		901773	5.81	827725	8.50	490631	10.74
UPPER LIMIT		1803546	6.31	1655450	9.00	981262	11.24
LOWER LIMIT		450887	5.31	413863	8.00	245316	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328532/5		928437	5.81	875930	8.50	512498	10.74
CCV 240-328532/6		811185	5.81	726553	8.50	449581	10.74
MB 240-328532/9		874828	5.81	807047	8.50	478590	10.74
240-95580-4	MSA-MW-35S-051418	849206	5.81	777735	8.50	467840	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: ICIS 240-327195/10 Date Analyzed: 05/16/2018 19:55

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX972105.D Heated Purge: (Y/N) N

Calibration ID: 45175

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		980931	5.72	939992	8.41	633296	10.65
UPPER LIMIT		1961862	6.22	1879984	8.91	1266592	11.15
LOWER LIMIT		490466	5.22	469996	7.91	316648	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327195/14		815938	5.72	796139	8.41	536029	10.65
CCVIS 240-327569/3		1056072	5.72	1027523	8.41	667664	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVIS 240-327569/3 Date Analyzed: 05/18/2018 17:08

Instrument ID: A3UX9 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX972153.D Heated Purge: (Y/N) N

Calibration ID: 45175

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1056072	5.72	1027523	8.41	667664	10.65
UPPER LIMIT		2112144	6.22	2055046	8.91	1335328	11.15
LOWER LIMIT		528036	5.22	513762	7.91	333832	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-327569/4		1090565	5.73	1064012	8.41	724683	10.65
CCV 240-327569/5		1085902	5.72	1043165	8.41	636149	10.65
MB 240-327569/7		817480	5.72	782482	8.41	464517	10.65
240-95314-1	TB-050718	879151	5.72	879145	8.41	532021	10.65
240-95314-2	MT-MW07S-050718	913502	5.73	872703	8.41	536669	10.65
240-95314-3	MT-MW08S-050718	777104	5.72	745538	8.41	446925	10.65
240-95314-4	MT-MW03S-050718	939621	5.72	921968	8.41	532333	10.65
240-95314-5	MT-MW12S-050818	907844	5.72	894990	8.41	546365	10.65
240-95314-6	MT-MW05S-050818	879206	5.72	873872	8.41	523419	10.65
240-95314-7	MT-MW06S-050818	899486	5.73	849812	8.41	528654	10.65

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 323374 Batch Start Date: 04/20/18 10:26 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm100is_stk 00041	vm100ss_stk 00029	vm50ss 00320	vmarolistdw 00243
BFB 240-323374/1		8260C		5 mL	5 mL				
STD8260 240-323374/9 IC		8260C		5 mL	5 mL	1 uL		48 uL	48 uL
STD8260 240-323374/10 IC		8260C		5 mL	5 mL	1 uL		32 uL	32 uL
STD8260 240-323374/11 IC		8260C		5 mL	5 mL	1 uL		24 uL	24 uL
ICIS 240-323374/12		8260C		5 mL	5 mL	1 uL		16 uL	16 uL
STD8260 240-323374/13 IC		8260C		5 mL	5 mL	1 uL		8 uL	8 uL
STD8260 240-323374/14 IC		8260C		5 mL	5 mL	1 uL		0.8 uL	0.8 uL
STD8260 240-323374/15 IC		8260C		5 mL	5 mL	1 uL		0.4 uL	0.4 uL
STDA9 240-323374/19 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-323374/20 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-323374/21 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-323374/22 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-323374/23 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-323374/24 IC		8260C		5 mL	5 mL	1 uL			
ICV 240-323374/25		8260C		5 mL	5 mL	1 uL	1 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 323374 Batch Start Date: 04/20/18 10:26 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9 00012	vmra9w 00247	vmrgas 00243	vmrprimw 00280	
BFB 240-323374/1		8260C		1 uL					
STD8260 240-323374/9 IC		8260C					48 uL	48 uL	
STD8260 240-323374/10 IC		8260C					32 uL	32 uL	
STD8260 240-323374/11 IC		8260C					24 uL	24 uL	
ICIS 240-323374/12		8260C					16 uL	16 uL	
STD8260 240-323374/13 IC		8260C					8 uL	8 uL	
STD8260 240-323374/14 IC		8260C					0.8 uL	0.8 uL	
STD8260 240-323374/15 IC		8260C					0.4 uL	0.4 uL	
STDA9 240-323374/19 IC		8260C				48 uL			
STDA9 240-323374/20 IC		8260C				32 uL			
STDA9 240-323374/21 IC		8260C				16 uL			
STDA9 240-323374/22 IC		8260C				8 uL			
STDA9 240-323374/23 IC		8260C				0.8 uL			
STDA9 240-323374/24 IC		8260C				0.4 uL			
ICV 240-323374/25		8260C			16 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 323374 Batch Start Date: 04/20/18 10:26 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 325908 Batch Start Date: 05/08/18 17:40 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm100is_stk 00041	vm100ss_stk 00029	vm50ss 00322	vmarolistdw 00246
BFB 240-325908/1		8260C		5 mL	5 mL				
STD8260 240-325908/9 IC		8260C		5 mL	5 mL	1 uL		48 uL	48 uL
STD8260 240-325908/10 IC		8260C		5 mL	5 mL	1 uL		32 uL	32 uL
STD8260 240-325908/11 IC		8260C		5 mL	5 mL	1 uL		24 uL	24 uL
ICIS 240-325908/12		8260C		5 mL	5 mL	1 uL		16 uL	16 uL
STD8260 240-325908/13 IC		8260C		5 mL	5 mL	1 uL		8 uL	8 uL
STD8260 240-325908/14 IC		8260C		5 mL	5 mL	1 uL		0.8 uL	0.8 uL
STD8260 240-325908/15 IC		8260C		5 mL	5 mL	1 uL		0.4 uL	0.4 uL
ICV 240-325908/16		8260C		5 mL	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00232	vmfasgw 00256	vmfaspw 00250	vmrgas 00245	vmrprimw 00283
BFB 240-325908/1		8260C		1 uL					
STD8260 240-325908/9 IC		8260C						48 uL	48 uL
STD8260 240-325908/10 IC		8260C						32 uL	32 uL
STD8260 240-325908/11 IC		8260C						24 uL	24 uL
ICIS 240-325908/12		8260C						16 uL	16 uL
STD8260 240-325908/13 IC		8260C						8 uL	8 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 325908 Batch Start Date: 05/08/18 17:40 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00232	vmfasgw 00256	vmfaspw 00250	vmrgas 00245	vmrprimw 00283
STD8260 240-325908/14 IC		8260C						0.8 uL	0.8 uL
STD8260 240-325908/15 IC		8260C						0.4 uL	0.4 uL
ICV 240-325908/16		8260C			16 uL	16 uL	16 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327195 Batch Start Date: 05/16/18 17:19 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm100is_stk 00040	vm100ss_stk 00029	vm50ss 00323	vmarolistdw 00247
BFB 240-327195/1		8260C		5 mL	5 mL				
STD8260 240-327195/8 IC		8260C		5 mL	5 mL	1 uL		48 uL	48 uL
STD8260 240-327195/9 IC		8260C		5 mL	5 mL	1 uL		32 uL	32 uL
ICIS 240-327195/10		8260C		5 mL	5 mL	1 uL		16 uL	16 uL
STD8260 240-327195/11 IC		8260C		5 mL	5 mL	1 uL		8 uL	8 uL
STD8260 240-327195/12 IC		8260C		5 mL	5 mL	1 uL		0.8 uL	0.8 uL
STD8260 240-327195/13 IC		8260C		5 mL	5 mL	1 uL		0.4 uL	0.4 uL
ICV 240-327195/14		8260C		5 mL	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00233	vmfasgw 00257	vmfaspw 00251	vmrgas 00246	vmrprimw 00284
BFB 240-327195/1		8260C		1 uL					
STD8260 240-327195/8 IC		8260C						48 uL	48 uL
STD8260 240-327195/9 IC		8260C						32 uL	32 uL
ICIS 240-327195/10		8260C						16 uL	16 uL
STD8260 240-327195/11 IC		8260C						8 uL	8 uL
STD8260 240-327195/12 IC		8260C						0.8 uL	0.8 uL
STD8260 240-327195/13 IC		8260C						0.4 uL	0.4 uL
ICV 240-327195/14		8260C			16 uL	16 uL	16 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327195 Batch Start Date: 05/16/18 17:19 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327569 Batch Start Date: 05/18/18 16:39 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00040	vm100ss_stk 00029	vmarolistdw 00247
BFB 240-327569/1		8260C		5 mL	5 mL				
CCVIS 240-327569/3		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-327569/4		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-327569/5		8260C		5 mL	5 mL		1 uL		
MB 240-327569/7		8260C		5 mL	5 mL		1 uL	1 uL	
240-95314-B-1	TB-050718	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-B-2	MT-MW07S-050718	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-C-3	MT-MW08S-050718	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-B-4	MT-MW03S-050718	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-B-5	MT-MW12S-050818	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-B-6	MT-MW05S-050818	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95314-B-7	MT-MW06S-050818	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00233	vmfasgw 00258	vmfaspw 00251	vmra9w 00251	vmrgas 00247
BFB 240-327569/1		8260C		1 uL					
CCVIS 240-327569/3		8260C							16 uL
LCS 240-327569/4		8260C			16 uL	16 uL	16 uL		
CCV 240-327569/5		8260C						16 uL	
MB 240-327569/7		8260C							
240-95314-B-1	TB-050718	8260C	T						
240-95314-B-2	MT-MW07S-050718	8260C	T						
240-95314-C-3	MT-MW08S-050718	8260C	T						
240-95314-B-4	MT-MW03S-050718	8260C	T						
240-95314-B-5	MT-MW12S-050818	8260C	T						
240-95314-B-6	MT-MW05S-050818	8260C	T						
240-95314-B-7	MT-MW06S-050818	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327569 Batch Start Date: 05/18/18 16:39 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00285					
BFB 240-327569/1		8260C							
CCVIS 240-327569/3		8260C		16 uL					
LCS 240-327569/4		8260C							
CCV 240-327569/5		8260C							
MB 240-327569/7		8260C							
240-95314-B-1	TB-050718	8260C	T						
240-95314-B-2	MT-MW07S-050718	8260C	T						
240-95314-C-3	MT-MW08S-050718	8260C	T						
240-95314-B-4	MT-MW03S-050718	8260C	T						
240-95314-B-5	MT-MW12S-050818	8260C	T						
240-95314-B-6	MT-MW05S-050818	8260C	T						
240-95314-B-7	MT-MW06S-050818	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327925 Batch Start Date: 05/22/18 08:17 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00041	vm100ss_stk 00029	vmarolistdw 00247
BFB 240-327925/1		8260C		5 mL	5 mL				
CCVIS 240-327925/4		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-327925/5		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-327925/6		8260C		5 mL	5 mL		1 uL		
MB 240-327925/9		8260C		5 mL	5 mL		1 uL	1 uL	
240-95494-B-1	TB-050918	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-2	MT-MW11S-050918	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-3	MT-MW04S-050918	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-4	MT-MW10S-050918	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-5	MT-MW02S-051018	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-6	MT-MW01S-051018	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95494-B-7	MT-MW09S-051018	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00233	vmfasgw 00258	vmfaspw 00251	vmra9w 00251	vmrgas 00247
BFB 240-327925/1		8260C		1 uL					
CCVIS 240-327925/4		8260C							16 uL
LCS 240-327925/5		8260C			16 uL	16 uL	16 uL		
CCV 240-327925/6		8260C						16 uL	
MB 240-327925/9		8260C							
240-95494-B-1	TB-050918	8260C	T						
240-95494-B-2	MT-MW11S-050918	8260C	T						
240-95494-B-3	MT-MW04S-050918	8260C	T						
240-95494-B-4	MT-MW10S-050918	8260C	T						
240-95494-B-5	MT-MW02S-051018	8260C	T						
240-95494-B-6	MT-MW01S-051018	8260C	T						
240-95494-B-7	MT-MW09S-051018	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327925 Batch Start Date: 05/22/18 08:17 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00285					
BFB 240-327925/1		8260C							
CCVIS 240-327925/4		8260C		16 uL					
LCS 240-327925/5		8260C							
CCV 240-327925/6		8260C							
MB 240-327925/9		8260C							
240-95494-B-1	TB-050918	8260C	T						
240-95494-B-2	MT-MW11S-050918	8260C	T						
240-95494-B-3	MT-MW04S-050918	8260C	T						
240-95494-B-4	MT-MW10S-050918	8260C	T						
240-95494-B-5	MT-MW02S-051018	8260C	T						
240-95494-B-6	MT-MW01S-051018	8260C	T						
240-95494-B-7	MT-MW09S-051018	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 328313 Batch Start Date: 05/24/18 08:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00041	vm100ss_stk 00029	vmarolistdw 00248
BFB 240-328313/1		8260C		5 mL	5 mL				
CCVIS 240-328313/4		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-328313/5		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-328313/6		8260C		5 mL	5 mL		1 uL		
MB 240-328313/9		8260C		5 mL	5 mL		1 uL	1 uL	
240-95580-B-1	TB-051418	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95580-C-2	MSA-MW-36S-051418	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95580-B-3	MSA-MW-37S-051418	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-95580-C-4	MSA-MW-35S-051418	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251	vmrgas 00247
BFB 240-328313/1		8260C		1 uL					
CCVIS 240-328313/4		8260C							16 uL
LCS 240-328313/5		8260C			16 uL	16 uL	16 uL		
CCV 240-328313/6		8260C						16 uL	
MB 240-328313/9		8260C							
240-95580-B-1	TB-051418	8260C	T						
240-95580-C-2	MSA-MW-36S-051418	8260C	T						
240-95580-B-3	MSA-MW-37S-051418	8260C	T						
240-95580-C-4	MSA-MW-35S-051418	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00285
BFB 240-328313/1		8260C		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 328313 Batch Start Date: 05/24/18 08:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00285					
CCVIS 240-328313/4		8260C		16 uL					
LCS 240-328313/5		8260C							
CCV 240-328313/6		8260C							
MB 240-328313/9		8260C							
240-95580-B-1	TB-051418	8260C	T						
240-95580-C-2	MSA-MW-36S-051418	8260C	T						
240-95580-B-3	MSA-MW-37S-051418	8260C	T						
240-95580-C-4	MSA-MW-35S-051418	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 328532 Batch Start Date: 05/25/18 09:11 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00041	vm100ss_stk 00029	vmarolistdw 00248
BFB 240-328532/1		8260C		5 mL	5 mL				
CCVIS 240-328532/4		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-328532/5		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-328532/6		8260C		5 mL	5 mL		1 uL		
MB 240-328532/9		8260C		5 mL	5 mL		1 uL	1 uL	
240-95580-A-4	MSA-MW-35S-051418	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00234	vmfasgw 00259	vmfaspw 00252	vmra9w 00252	vmrgas 00248
BFB 240-328532/1		8260C		1 uL					
CCVIS 240-328532/4		8260C							16 uL
LCS 240-328532/5		8260C			16 uL	16 uL	16 uL		
CCV 240-328532/6		8260C						16 uL	
MB 240-328532/9		8260C							
240-95580-A-4	MSA-MW-35S-051418	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-328532/1		8260C							
CCVIS 240-328532/4		8260C		16 uL					
LCS 240-328532/5		8260C							
CCV 240-328532/6		8260C							
MB 240-328532/9		8260C							
240-95580-A-4	MSA-MW-35S-051418	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 328532 Batch Start Date: 05/25/18 09:11 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
	MB 240-327063/5-A	45	36	50	62	44	106
	LCS 240-327063/6-A	51	38	59	72	54	101

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	NBZ #	FBP #	TPHL #
MT-MW07S-050718	240-95314-2	45	55	101
MT-MW08S-050718	240-95314-3	53	65	102
MT-MW03S-050718	240-95314-4	56	67	101
MT-MW12S-050818	240-95314-5	61	73	99
MT-MW05S-050818	240-95314-6	73	95	129 X
MT-MW06S-050818	240-95314-7	54	62	108
MT-MW11S-050918	240-95494-2	48	62	113
MT-MW04S-050918	240-95494-3	52	66	111
MT-MW10S-050918	240-95494-4	46	58	107
MT-MW02S-051018	240-95494-5	55	63	100
MT-MW01S-051018	240-95494-6	58	77	99
MT-MW09S-051018	240-95494-7	48	57	115
MSA-MW-36S-051418	240-95580-2	52	57	122
MSA-MW-37S-051418	240-95580-3	48	55	111
MSA-MW-35S-051418	240-95580-4	47	55	90
	MB 240-326141/8-A	57	63	89
	MB 240-326848/8-A	51	67	112
	LCS 240-326141/9-A	80	82	85
	LCS 240-326848/9-A	55	71	92

	QC LIMITS
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80514011.D

Lab ID: LCS 240-326141/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	10.4	32	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80518005.D

Lab ID: LCS 240-326848/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	9.93	31	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80518007.D

Lab ID: LCS 240-327063/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	11.2	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80514010.D Lab Sample ID: MB 240-326141/8-A

Matrix: Water Date Extracted: 05/10/2018 06:35

Instrument ID: A4AG2 Date Analyzed: 05/14/2018 11:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-326141/9-A	80514011.D	05/14/2018 11:26
MT-MW07S-050718	240-95314-2	80515005.D	05/15/2018 09:49
MT-MW08S-050718	240-95314-3	80515006.D	05/15/2018 10:14
MT-MW03S-050718	240-95314-4	80515007.D	05/15/2018 10:39
MT-MW12S-050818	240-95314-5	80515008.D	05/15/2018 11:03
MT-MW05S-050818	240-95314-6	80515009.D	05/15/2018 11:28
MT-MW06S-050818	240-95314-7	80515010.D	05/15/2018 11:53

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-326141/8-A

Matrix: Water | Lab File ID: 80514010.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/10/2018 06:35

Sample wt/vol: 250(mL) | Date Analyzed: 05/14/2018 11:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326578 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	57		35-120
1718-51-0	Terphenyl-d14 (Surr)	89		28-128

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80518004.D Lab Sample ID: MB 240-326848/8-A

Matrix: Water Date Extracted: 05/15/2018 07:56

Instrument ID: A4AG2 Date Analyzed: 05/18/2018 08:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-326848/9-A	80518005.D	05/18/2018 09:03
MT-MW11S-050918	240-95494-2	80518009.D	05/18/2018 10:41
MT-MW04S-050918	240-95494-3	80518010.D	05/18/2018 11:06
MT-MW10S-050918	240-95494-4	80518011.D	05/18/2018 11:30
MT-MW02S-051018	240-95494-5	80518012.D	05/18/2018 11:55
MT-MW01S-051018	240-95494-6	80518013.D	05/18/2018 12:19
MT-MW09S-051018	240-95494-7	80518014.D	05/18/2018 12:44

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-326848/8-A

Matrix: Water | Lab File ID: 80518004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/15/2018 07:56

Sample wt/vol: 250(mL) | Date Analyzed: 05/18/2018 08:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	67		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	51		35-120
1718-51-0	Terphenyl-d14 (Surr)	112		28-128

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80518006.D Lab Sample ID: MB 240-327063/5-A

Matrix: Water Date Extracted: 05/16/2018 08:40

Instrument ID: A4AG2 Date Analyzed: 05/18/2018 09:28

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-327063/6-A	80518007.D	05/18/2018 09:52
MSA-MW-36S-051418	240-95580-2	80518015.D	05/18/2018 13:09
MSA-MW-37S-051418	240-95580-3	80518016.D	05/18/2018 13:33
MSA-MW-35S-051418	240-95580-4	80518017.D	05/18/2018 13:58

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327063/5-A

Matrix: Water | Lab File ID: 80518006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/16/2018 08:40

Sample wt/vol: 250(mL) | Date Analyzed: 05/18/2018 09:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327430 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.26	U	1.0	0.26

CAS NO.	SURROGATE	%REC	Q	LIMITS
367-12-4	2-Fluorophenol (Surr)	45		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
4165-60-0	Nitrobenzene-d5 (Surr)	50		35-120
118-79-6	2,4,6-Tribromophenol (Surr)	44		33-120
4165-62-2	Phenol-d5 (Surr)	36		15-120
1718-51-0	Terphenyl-d14 (Surr)	106		28-128

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80511001.D DFTPP Injection Date: 05/11/2018

Instrument ID: A4AG2 DFTPP Injection Time: 10:59

Analysis Batch No.: 326356

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.6	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	47.7	
70	Less than 2.0% of mass 69	0.3	(0.5) 1
127	25.0 - 75.0% of mass 198	54.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	29.0	
365	Greater than 0.75% of mass 198	3.9	
441	Present, but less than mass 443	13.1	
442	40.0 - 110.0% of mass 198	92.7	
443	15.0 - 24.0% of mass 442	17.9	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-326356/2	80511002.D	05/11/2018	11:16
	STD8 240-326356/3	80511003.D	05/11/2018	11:41
	STD7 240-326356/4	80511004.D	05/11/2018	12:05
	STD6 240-326356/5	80511005.D	05/11/2018	12:29
	STD5 240-326356/6	80511006.D	05/11/2018	12:54
	STD4 240-326356/7	80511007.D	05/11/2018	13:18
	STD3 240-326356/8	80511008.D	05/11/2018	13:43
	STD2 240-326356/9	80511009.D	05/11/2018	14:07
	STD1 240-326356/10	80511010.D	05/11/2018	14:32
	ICV 240-326356/11	80511011.D	05/11/2018	14:56

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 326356

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2018 11:16 Calibration End Date: 05/11/2018 14:32 Calibration ID: 45135

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-326356/10	80511010.D
Level 2	STD2 240-326356/9	80511009.D
Level 3	STD3 240-326356/8	80511008.D
Level 4	STD4 240-326356/7	80511007.D
Level 5	STD5 240-326356/6	80511006.D
Level 6	STD6 240-326356/5	80511005.D
Level 7	STD7 240-326356/4	80511004.D
Level 8	STD8 240-326356/3	80511003.D
Level 9	STD9 240-326356/2	80511002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2822	0.2897 0.2782	0.2739 0.3035	0.2920 0.3100	0.2816	Ave		0.2889				4.3		20.0			
N-Nitrosodimethylamine	0.8756	0.8196 0.8998	0.8339 0.9691	0.8134 0.9198	0.8557	Ave		0.8734				6.2		20.0			
Pyridine	0.8557 0.8579	0.7020 0.8632	0.7016 0.9807	0.8001 0.9762	0.8157	Ave		0.8392				11.9		20.0			
Benzaldehyde	1.5202 0.8858	1.0743 0.7736	1.1226 +++++	1.0714 +++++	1.0099	Qua	3.8877	1.1143	-0.000114		0.0100				1.0000		0.9900
Phenol	1.8048	1.5635 1.7816	1.6418 1.4301	1.5608 1.6614	1.6941	Ave		1.6423			0.8000	7.5		20.0			
Aniline	2.6592	2.2683 2.6959	2.5007 2.3943	2.5195 2.5248	2.5876	Ave		2.5188				5.5		20.0			
Bis(2-chloroethyl)ether	1.7096	1.6034 1.7985	1.7912 1.7721	1.6521 1.8526	1.6533	Ave		1.7291			0.7000	5.1		20.0			
2-Chlorophenol	1.4439	1.3806 1.5592	1.4212 1.4348	1.4206 1.5681	1.4710	Ave		1.4624			0.8000	4.6		20.0			
n-Decane	1.6507	1.6615 1.6793	1.6438 1.7251	1.6390 1.6534	1.5722	Ave		1.6531				2.6		20.0			
1,3-Dichlorobenzene	1.6270	1.5610 1.6159	1.6354 1.7471	1.5900 1.6839	1.5873	Ave		1.6310				3.7		20.0			
1,4-Dichlorobenzene	1.6601	1.6331 1.6752	1.6476 1.7913	1.6297 1.7531	1.6667	Ave		1.6821				3.5		20.0			
Benzyl alcohol	1.0517	0.7712 1.0446	0.9908 0.9879	0.9307 1.0374	0.9959	Ave		0.9763				9.4		20.0			
1,2-Dichlorobenzene	1.6471	1.5649 1.6761	1.6857 1.7141	1.6176 1.7335	1.6394	Ave		1.6598				3.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 326356

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/11/2018 11:16 Calibration End Date: 05/11/2018 14:32 Calibration ID: 45135

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-326356/10	80511010.D
Level 2	STD2 240-326356/9	80511009.D
Level 3	STD3 240-326356/8	80511008.D
Level 4	STD4 240-326356/7	80511007.D
Level 5	STD5 240-326356/6	80511006.D
Level 6	STD6 240-326356/5	80511005.D
Level 7	STD7 240-326356/4	80511004.D
Level 8	STD8 240-326356/3	80511003.D
Level 9	STD9 240-326356/2	80511002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	101741	4776 160478	8590 268494	19462 325380	50964	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	315629	13513 518993	26150 857389	54216 965618	154881	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	5360 618504	23148 995755	44001 1735271	106661 2049517	295287	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	9522 638658	35423 892379	70409 +++++	142831 +++++	365581	20.0 2000	100 3000	200 +++++	400 +++++	1000
Phenol	DCBd 4	Ave	650613	25777 1027624	51485 1265192	104038 1744086	306624	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	958590	37396 1554991	78418 2118229	167943 2650537	468346	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	616300	26435 1037342	56170 1567777	110122 1944777	299231	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	520502	22761 899359	44567 1269368	94690 1646181	266236	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	595063	27393 968621	51548 1526198	109246 1735669	284569	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	586520	25736 932042	51285 1545664	105986 1767776	287299	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	598451	26924 966224	51666 1584804	108632 1840336	301658	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	379128	12714 602521	31072 874049	62035 1089087	180253	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	593745	25799 966749	52863 1516507	107820 1819837	296725	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	557847	20386 853947	43856 1181281	86724 1566055	257476	1000	50.0 1500	100 2000	200 2500	500

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-326356/11 Calibration Date: 05/11/2018 14:56

Instrument ID: A4AG2 Calib Start Date: 05/11/2018 11:16

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/11/2018 14:32

Lab File ID: 80511011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2889	0.2244		0.777	1.00	-22.3	30.0
N-Nitrosodimethylamine	Ave	0.8734	0.8066		0.924	1.00	-7.6	30.0
Pyridine	Ave	0.8392	0.6863		1.64	2.00	-18.2	30.0
Benzaldehyde	Qua		1.002	0.0100	2.37	2.00	18.6	30.0
Phenol	Ave	1.642	1.752	0.8000	1.07	1.00	6.7	30.0
Aniline	Ave	2.519	2.761		1.10	1.00	9.6	30.0
Bis(2-chloroethyl)ether	Ave	1.729	1.734	0.7000	1.00	1.00	0.3	30.0
2-Chlorophenol	Ave	1.462	1.516	0.8000	1.04	1.00	3.7	30.0
n-Decane	Ave	1.653	1.464		0.886	1.00	-11.4	30.0
1,3-Dichlorobenzene	Ave	1.631	1.551		0.951	1.00	-4.9	30.0
1,4-Dichlorobenzene	Ave	1.682	1.642		0.976	1.00	-2.4	30.0
Benzyl alcohol	Ave	0.9763	1.077		1.10	1.00	10.3	30.0
1,2-Dichlorobenzene	Ave	1.660	1.676		1.01	1.00	1.0	30.0
2-Methylphenol	Ave	1.402	1.546	0.7000	1.10	1.00	10.3	30.0
bis (2-chloroisopropyl) ether	Ave	2.551	2.529		0.991	1.00	-0.9	30.0
Indene	Ave	2.870	3.031		2.11	2.00	5.6	30.0
3 & 4 Methylphenol	Ave	1.393	1.477		1.06	1.00	6.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.399	1.458	0.5000	1.04	1.00	4.2	30.0
Acetophenone	Ave	2.383	2.527	0.0100	1.06	1.00	6.0	30.0
Hexachloroethane	Ave	0.6652	0.6518	0.3000	0.980	1.00	-2.0	30.0
Nitrobenzene	Ave	0.4253	0.4312	0.2000	1.01	1.00	1.4	30.0
Isophorone	Ave	0.7375	0.7517	0.4000	1.02	1.00	1.9	30.0
2,4-Dimethylphenol	Ave	0.3531	0.3507	0.2000	0.993	1.00	-0.7	30.0
2-Nitrophenol	Ave	0.1892	0.1918	0.1000	1.01	1.00	1.4	30.0
Benzoic acid	Lin		0.1282		1.79	2.00	-10.7	30.0
Bis(2-chloroethoxy)methane	Ave	0.4407	0.4264	0.3000	0.967	1.00	-3.3	30.0
2,4-Dichlorophenol	Ave	0.2474	0.2509	0.2000	1.01	1.00	1.4	30.0
1,2,4-Trichlorobenzene	Ave	0.3069	0.3066		0.999	1.00	-0.1	30.0
Naphthalene	Ave	1.107	1.115	0.7000	1.01	1.00	0.7	30.0
4-Chloroaniline	Ave	0.5422	0.5608	0.0100	1.03	1.00	3.4	30.0
2,6-Dichlorophenol	Ave	0.2723	0.2765		1.02	1.00	1.5	30.0
Hexachlorobutadiene	Ave	0.1806	0.1877	0.0100	1.04	1.00	4.0	30.0
Caprolactam	Ave	0.1161	0.1178	0.0100	2.03	2.00	1.5	30.0
4-Chloro-3-methylphenol	Ave	0.2755	0.2799	0.2000	1.02	1.00	1.6	30.0
2-Methylnaphthalene	Ave	0.7361	0.7388	0.4000	1.00	1.00	0.4	30.0
1-Methylnaphthalene	Ave	0.7029	0.7057		1.00	1.00	0.4	30.0
Hexachlorocyclopentadiene	Qua		0.3575	0.0500	1.10	1.00	9.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5821	0.6065	0.0100	1.04	1.00	4.2	30.0
2,4,6-Trichlorophenol	Ave	0.3550	0.3756	0.2000	1.06	1.00	5.8	30.0
2,4,5-Trichlorophenol	Ave	0.3497	0.3683	0.2000	1.05	1.00	5.3	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80514001.D DFTPP Injection Date: 05/14/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:32

Analysis Batch No.: 326578

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	46.2	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	45.0	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	51.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	29.6	
365	Greater than 0.75% of mass 198	4.3	
441	Present, but less than mass 443	14.2	
442	40.0 - 110.0% of mass 198	98.4	
443	15.0 - 24.0% of mass 442	19.5	(19.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-326578/2	80514002.D	05/14/2018	07:17
	MB 240-326141/8-A	80514010.D	05/14/2018	11:01
	LCS 240-326141/9-A	80514011.D	05/14/2018	11:26

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Lab Sample ID: STD6 240-326578/2 | Calibration Date: 05/14/2018 07:17

Instrument ID: A4AG2 | Calib Start Date: 05/11/2018 11:16

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/11/2018 14:32

Lab File ID: 80514002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2889	0.2382		0.824	1.00	-17.6	20.0
N-Nitrosodimethylamine	Ave	0.8734	0.7873		0.901	1.00	-9.9	20.0
Pyridine	Ave	0.8392	0.6987		1.67	2.00	-16.7	20.0
Benzaldehyde	Qua		0.9434	0.0100	2.17	2.00	8.7	20.0
Phenol	Ave	1.642	1.253	0.8000	0.763	1.00	-23.7*	20.0
Aniline	Ave	2.519	2.634		1.05	1.00	4.6	20.0
Bis(2-chloroethyl)ether	Ave	1.729	1.887	0.7000	1.09	1.00	9.2	20.0
2-Chlorophenol	Ave	1.462	1.537	0.8000	1.05	1.00	5.1	20.0
n-Decane	Ave	1.653	1.397		0.845	1.00	-15.5	20.0
1,3-Dichlorobenzene	Ave	1.631	1.572		0.964	1.00	-3.6	20.0
1,4-Dichlorobenzene	Ave	1.682	1.636		0.973	1.00	-2.7	20.0
Benzyl alcohol	Ave	0.9763	0.9852		1.01	1.00	0.9	20.0
1,2-Dichlorobenzene	Ave	1.660	1.711		1.03	1.00	3.1	20.0
2-Methylphenol	Ave	1.402	1.314	0.7000	0.938	1.00	-6.2	20.0
bis (2-chloroisopropyl) ether	Ave	2.551	2.703		1.06	1.00	5.9	20.0
Indene	Ave	2.870	3.152		2.20	2.00	9.8	20.0
3 & 4 Methylphenol	Ave	1.393	1.263		0.907	1.00	-9.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.399	1.587	0.5000	1.13	1.00	13.4	20.0
Acetophenone	Ave	2.383	2.725	0.0100	1.14	1.00	14.3	20.0
Hexachloroethane	Ave	0.6652	0.6783	0.3000	1.02	1.00	2.0	20.0
Nitrobenzene	Ave	0.4253	0.4063	0.2000	0.955	1.00	-4.5	20.0
Isophorone	Ave	0.7375	0.7179	0.4000	0.974	1.00	-2.6	20.0
2,4-Dimethylphenol	Ave	0.3531	0.3237	0.2000	0.917	1.00	-8.3	20.0
2-Nitrophenol	Ave	0.1892	0.1956	0.1000	1.03	1.00	3.4	20.0
Benzoic acid	Lin		0.1295		1.80	2.00	-10.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4407	0.4248	0.3000	0.964	1.00	-3.6	20.0
2,4-Dichlorophenol	Ave	0.2474	0.2247	0.2000	0.908	1.00	-9.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3069	0.2978		0.970	1.00	-3.0	20.0
Naphthalene	Ave	1.107	1.093	0.7000	0.987	1.00	-1.3	20.0
4-Chloroaniline	Ave	0.5422	0.5544	0.0100	1.02	1.00	2.3	20.0
2,6-Dichlorophenol	Ave	0.2723	0.2693		0.989	1.00	-1.1	20.0
Hexachlorobutadiene	Ave	0.1806	0.1804	0.0100	0.999	1.00	-0.1	20.0
Caprolactam	Ave	0.1161	0.1106	0.0100	1.91	2.00	-4.7	20.0
4-Chloro-3-methylphenol	Ave	0.2755	0.2673	0.2000	0.970	1.00	-3.0	20.0
2-Methylnaphthalene	Ave	0.7361	0.7583	0.4000	1.03	1.00	3.0	20.0
1-Methylnaphthalene	Ave	0.7029	0.7152		1.02	1.00	1.7	20.0
Hexachlorocyclopentadiene	Qua		0.3392	0.0500	1.05	1.00	5.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5821	0.6051	0.0100	1.04	1.00	4.0	20.0
2,4,6-Trichlorophenol	Ave	0.3550	0.3792	0.2000	1.07	1.00	6.8	20.0
2,4,5-Trichlorophenol	Ave	0.3497	0.3700	0.2000	1.06	1.00	5.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80515001.D DFTPP Injection Date: 05/15/2018

Instrument ID: A4AG2 DFTPP Injection Time: 08:15

Analysis Batch No.: 326822

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	58.0	
68	Less than 2.0% of mass 69	0.4	(1.1) 1
69	Mass 69 relative abundance	38.7	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.4	
197	Less than 1.0% of mass 198	0.6	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	18.2	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	61.2	
443	15.0 - 24.0% of mass 442	11.7	(19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-326822/2	80515002.D	05/15/2018	08:35
MT-MW07S-050718	240-95314-2	80515005.D	05/15/2018	09:49
MT-MW08S-050718	240-95314-3	80515006.D	05/15/2018	10:14
MT-MW03S-050718	240-95314-4	80515007.D	05/15/2018	10:39
MT-MW12S-050818	240-95314-5	80515008.D	05/15/2018	11:03
MT-MW05S-050818	240-95314-6	80515009.D	05/15/2018	11:28
MT-MW06S-050818	240-95314-7	80515010.D	05/15/2018	11:53

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: STD6 240-326822/2 Calibration Date: 05/15/2018 08:35

Instrument ID: A4AG2 Calib Start Date: 05/11/2018 11:16

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/11/2018 14:32

Lab File ID: 80515002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2889	0.3285		1.14	1.00	13.7	20.0
N-Nitrosodimethylamine	Ave	0.8734	1.041		1.19	1.00	19.2	20.0
Pyridine	Ave	0.8392	1.017		2.42	2.00	21.2*	20.0
Benzaldehyde	Qua		1.071	0.0100	2.62	2.00	31.2*	20.0
Phenol	Ave	1.642	2.065	0.8000	1.26	1.00	25.7*	20.0
Aniline	Ave	2.519	3.340		1.33	1.00	32.6*	20.0
Bis(2-chloroethyl)ether	Ave	1.729	2.443	0.7000	1.41	1.00	41.3*	20.0
2-Chlorophenol	Ave	1.462	1.816	0.8000	1.24	1.00	24.1*	20.0
n-Decane	Ave	1.653	2.353		1.42	1.00	42.4*	20.0
1,3-Dichlorobenzene	Ave	1.631	1.691		1.04	1.00	3.7	20.0
1,4-Dichlorobenzene	Ave	1.682	1.809		1.08	1.00	7.5	20.0
Benzyl alcohol	Ave	0.9763	1.252		1.28	1.00	28.3*	20.0
1,2-Dichlorobenzene	Ave	1.660	1.845		1.11	1.00	11.2	20.0
2-Methylphenol	Ave	1.402	1.761	0.7000	1.26	1.00	25.6*	20.0
bis (2-chloroisopropyl) ether	Ave	2.551	4.745		1.86	1.00	86.0*	20.0
Indene	Ave	2.870	3.539		2.47	2.00	23.3*	20.0
3 & 4 Methylphenol	Ave	1.393	1.712		1.23	1.00	22.9*	20.0
N-Nitrosodi-n-propylamine	Ave	1.399	1.666	0.5000	1.19	1.00	19.1	20.0
Acetophenone	Ave	2.383	2.902	0.0100	1.22	1.00	21.8*	20.0
Hexachloroethane	Ave	0.6652	0.7016	0.3000	1.05	1.00	5.5	20.0
Nitrobenzene	Ave	0.4253	0.3702	0.2000	0.871	1.00	-12.9	20.0
Isophorone	Ave	0.7375	0.7427	0.4000	1.01	1.00	0.7	20.0
2,4-Dimethylphenol	Ave	0.3531	0.3288	0.2000	0.931	1.00	-6.9	20.0
2-Nitrophenol	Ave	0.1892	0.1964	0.1000	1.04	1.00	3.8	20.0
Benzoic acid	Lin		0.1120		1.62	2.00	-19.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.4407	0.5167	0.3000	1.17	1.00	17.2	20.0
2,4-Dichlorophenol	Ave	0.2474	0.2321	0.2000	0.938	1.00	-6.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3069	0.2638		0.860	1.00	-14.0	20.0
Naphthalene	Ave	1.107	1.165	0.7000	1.05	1.00	5.3	20.0
4-Chloroaniline	Ave	0.5422	0.5963	0.0100	1.10	1.00	10.0	20.0
2,6-Dichlorophenol	Ave	0.2723	0.2638		0.969	1.00	-3.1	20.0
Hexachlorobutadiene	Ave	0.1806	0.1192	0.0100	0.660	1.00	-34.0*	20.0
Caprolactam	Ave	0.1161	0.1130	0.0100	1.95	2.00	-2.6	20.0
4-Chloro-3-methylphenol	Ave	0.2755	0.2450	0.2000	0.889	1.00	-11.1	20.0
2-Methylnaphthalene	Ave	0.7361	0.7887	0.4000	1.07	1.00	7.1	20.0
1-Methylnaphthalene	Ave	0.7029	0.7403		1.05	1.00	5.3	20.0
Hexachlorocyclopentadiene	Qua		0.2363	0.0500	0.786	1.00	-21.4*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5821	0.5204	0.0100	0.894	1.00	-10.6	20.0
2,4,6-Trichlorophenol	Ave	0.3550	0.3419	0.2000	0.963	1.00	-3.7	20.0
2,4,5-Trichlorophenol	Ave	0.3497	0.3184	0.2000	0.911	1.00	-8.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab File ID: 80518001.D DFTPP Injection Date: 05/18/2018

Instrument ID: A4AG2 DFTPP Injection Time: 07:32

Analysis Batch No.: 327430

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	58.4	
68	Less than 2.0% of mass 69	0.0	(0.1) 1
69	Mass 69 relative abundance	37.4	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	19.0	
365	Greater than 0.75% of mass 198	2.2	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	67.0	
443	15.0 - 24.0% of mass 442	13.2	(19.6) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-327430/2	80518002.D	05/18/2018	07:49
	MB 240-326848/8-A	80518004.D	05/18/2018	08:39
	LCS 240-326848/9-A	80518005.D	05/18/2018	09:03
	MB 240-327063/5-A	80518006.D	05/18/2018	09:28
	LCS 240-327063/6-A	80518007.D	05/18/2018	09:52
MT-MW11S-050918	240-95494-2	80518009.D	05/18/2018	10:41
MT-MW04S-050918	240-95494-3	80518010.D	05/18/2018	11:06
MT-MW10S-050918	240-95494-4	80518011.D	05/18/2018	11:30
MT-MW02S-051018	240-95494-5	80518012.D	05/18/2018	11:55
MT-MW01S-051018	240-95494-6	80518013.D	05/18/2018	12:19
MT-MW09S-051018	240-95494-7	80518014.D	05/18/2018	12:44
MSA-MW-36S-051418	240-95580-2	80518015.D	05/18/2018	13:09
MSA-MW-37S-051418	240-95580-3	80518016.D	05/18/2018	13:33
MSA-MW-35S-051418	240-95580-4	80518017.D	05/18/2018	13:58

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Lab Sample ID: STD6 240-327430/2 | Calibration Date: 05/18/2018 07:49

Instrument ID: A4AG2 | Calib Start Date: 05/11/2018 11:16

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/11/2018 14:32

Lab File ID: 80518002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2889	0.2396		0.829	1.00	-17.1	20.0
N-Nitrosodimethylamine	Ave	0.8734	0.9248		1.06	1.00	5.9	20.0
Pyridine	Ave	0.8392	0.6854		1.63	2.00	-18.3	20.0
Benzaldehyde	Qua		1.025	0.0100	2.45	2.00	22.6*	20.0
Phenol	Ave	1.642	1.202	0.8000	0.732	1.00	-26.8*	20.0
Aniline	Ave	2.519	2.876		1.14	1.00	14.2	20.0
Bis(2-chloroethyl)ether	Ave	1.729	2.582	0.7000	1.49	1.00	49.3*	20.0
n-Decane	Ave	1.653	2.362		1.43	1.00	42.9*	20.0
2-Chlorophenol	Ave	1.462	1.537	0.8000	1.05	1.00	5.1	20.0
1,3-Dichlorobenzene	Ave	1.631	1.743		1.07	1.00	6.8	20.0
1,4-Dichlorobenzene	Ave	1.682	1.848		1.10	1.00	9.9	20.0
Benzyl alcohol	Ave	0.9763	0.9720		0.996	1.00	-0.4	20.0
1,2-Dichlorobenzene	Ave	1.660	1.943		1.17	1.00	17.0	20.0
2-Methylphenol	Ave	1.402	1.504	0.7000	1.07	1.00	7.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.551	4.895		1.92	1.00	91.9*	20.0
Indene	Ave	2.870	3.699		2.58	2.00	28.9*	20.0
3 & 4 Methylphenol	Ave	1.393	1.487		1.07	1.00	6.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.399	1.704	0.5000	1.22	1.00	21.8*	20.0
Acetophenone	Ave	2.383	3.131	0.0100	1.31	1.00	31.4*	20.0
Hexachloroethane	Ave	0.6652	0.7207	0.3000	1.08	1.00	8.3	20.0
Nitrobenzene	Ave	0.4253	0.3480	0.2000	0.818	1.00	-18.2	20.0
Isophorone	Ave	0.7375	0.6968	0.4000	0.945	1.00	-5.5	20.0
2,4-Dimethylphenol	Ave	0.3531	0.2867	0.2000	0.812	1.00	-18.8	20.0
2-Nitrophenol	Ave	0.1892	0.2040	0.1000	1.08	1.00	7.8	20.0
Benzoic acid	Lin		0.1466		1.98	2.00	-1.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4407	0.4856	0.3000	1.10	1.00	10.2	20.0
2,4-Dichlorophenol	Ave	0.2474	0.1904*	0.2000	0.770	1.00	-23.0*	20.0
1,2,4-Trichlorobenzene	Ave	0.3069	0.2716		0.885	1.00	-11.5	20.0
Naphthalene	Ave	1.107	1.204	0.7000	1.09	1.00	8.8	20.0
4-Chloroaniline	Ave	0.5422	0.6065	0.0100	1.12	1.00	11.9	20.0
2,6-Dichlorophenol	Ave	0.2723	0.2487		0.913	1.00	-8.7	20.0
Hexachlorobutadiene	Ave	0.1806	0.1186	0.0100	0.657	1.00	-34.3*	20.0
Caprolactam	Ave	0.1161	0.1038	0.0100	1.79	2.00	-10.5	20.0
4-Chloro-3-methylphenol	Ave	0.2755	0.2696	0.2000	0.978	1.00	-2.2	20.0
2-Methylnaphthalene	Ave	0.7361	0.8061	0.4000	1.10	1.00	9.5	20.0
1-Methylnaphthalene	Ave	0.7029	0.7682		1.09	1.00	9.3	20.0
Hexachlorocyclopentadiene	Qua		0.2292	0.0500	0.767	1.00	-23.3*	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5821	0.5653	0.0100	0.971	1.00	-2.9	20.0
2,4,6-Trichlorophenol	Ave	0.3550	0.3694	0.2000	1.04	1.00	4.1	20.0
2,4,5-Trichlorophenol	Ave	0.3497	0.3357	0.2000	0.960	1.00	-4.0	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326356/5 Date Analyzed: 05/11/2018 12:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80511005.D Heated Purge: (Y/N) N

Calibration ID: 45135

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		144194	6.80	719478	7.87	361903	9.37
UPPER LIMIT		288388	7.30	1438956	8.37	723806	9.87
LOWER LIMIT		72097	6.30	359739	7.37	180952	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-326356/11		142346	6.80	715562	7.88	362386	9.37
STD6 240-326578/2 CCVIS		124154	6.80	677512	7.87	343675	9.37
STD6 240-326822/2 CCVIS		170862	6.79	969573	7.86	430783	9.36
STD6 240-327430/2 CCVIS		148974	6.80	904155	7.87	382116	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326356/5 Date Analyzed: 05/11/2018 12:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80511005.D Heated Purge: (Y/N) N

Calibration ID: 45135

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		664395	10.66	676745	13.60	646724	15.97
UPPER LIMIT		1328790	11.16	1353490	14.10	1293448	16.47
LOWER LIMIT		332198	10.16	338373	13.10	323362	15.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-326356/11		669844	10.66	682384	13.60	645757	15.97
STD6 240-326578/2 CCVIS		660547	10.66	652201	13.60	643739	15.96
STD6 240-326822/2 CCVIS		670422	10.65	550880	13.59	431024	15.95
STD6 240-327430/2 CCVIS		586353	10.65	446231	13.60	345964	15.96

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326578/2 Date Analyzed: 05/14/2018 07:17

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80514002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		124154	6.80	677512	7.87	343675	9.37
UPPER LIMIT		248308	7.30	1355024	8.37	687350	9.87
LOWER LIMIT		62077	6.30	338756	7.37	171838	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-326141/8-A		118087	6.80	577330	7.87	267012	9.37
LCS 240-326141/9-A		116769	6.80	542722	7.87	295030	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326578/2 Date Analyzed: 05/14/2018 07:17

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80514002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		660547	10.66	652201	13.60	643739	15.96
UPPER LIMIT		1321094	11.16	1304402	14.10	1287478	16.46
LOWER LIMIT		330274	10.16	326101	13.10	321870	15.46
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-326141/8-A		598899	10.65	572926	13.59	571590	15.96
LCS 240-326141/9-A		549642	10.65	567984	13.59	554846	15.96

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326822/2 Date Analyzed: 05/15/2018 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80515002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		170862	6.79	969573	7.86	430783	9.36
UPPER LIMIT		341724	7.29	1939146	8.36	861566	9.86
LOWER LIMIT		85431	6.29	484787	7.36	215392	8.86
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-95314-2	MT-MW07S-050718	148509	6.79	797283	7.86	378160	9.36
240-95314-3	MT-MW08S-050718	174143	6.79	885783	7.86	384823	9.36
240-95314-4	MT-MW03S-050718	172467	6.79	855920	7.86	390683	9.36
240-95314-5	MT-MW12S-050818	154289	6.79	918213	7.86	395320	9.36
240-95314-6	MT-MW05S-050818	156872	6.79	924068	7.86	373457	9.36
240-95314-7	MT-MW06S-050818	174182	6.79	909688	7.86	372720	9.36

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-326822/2 Date Analyzed: 05/15/2018 08:35

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80515002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		670422	10.65	550880	13.59	431024	15.95
UPPER LIMIT		1340844	11.15	1101760	14.09	862048	16.45
LOWER LIMIT		335211	10.15	275440	13.09	215512	15.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-95314-2	MT-MW07S-050718	671052	10.65	468710	13.57	332174	15.94
240-95314-3	MT-MW08S-050718	670167	10.65	495817	13.57	399332	15.94
240-95314-4	MT-MW03S-050718	664571	10.65	492509	13.58	402841	15.94
240-95314-5	MT-MW12S-050818	680894	10.65	493190	13.57	384706	15.94
240-95314-6	MT-MW05S-050818	643517	10.65	472303	13.57	382653	15.94
240-95314-7	MT-MW06S-050818	691509	10.65	500905	13.57	395982	15.94

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-327430/2 Date Analyzed: 05/18/2018 07:49

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80518002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		148974	6.80	904155	7.87	382116	9.37
UPPER LIMIT		297948	7.30	1808310	8.37	764232	9.87
LOWER LIMIT		74487	6.30	452078	7.37	191058	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-326848/8-A		120014	6.80	796366	7.87	390122	9.37
LCS 240-326848/9-A		117199	6.80	782992	7.87	352928	9.37
MB 240-327063/5-A		150796	6.80	915144	7.87	425064	9.37
LCS 240-327063/6-A		126295	6.80	768568	7.87	344545	9.37
240-95494-2	MT-MW11S-050918	132454	6.80	778873	7.87	380153	9.37
240-95494-3	MT-MW04S-050918	107842	6.80	713061	7.87	351314	9.37
240-95494-4	MT-MW10S-050918	131325	6.80	773558	7.87	371505	9.37
240-95494-5	MT-MW02S-051018	127383	6.80	870499	7.87	425455	9.37
240-95494-6	MT-MW01S-051018	143014	6.80	829052	7.87	395810	9.37
240-95494-7	MT-MW09S-051018	118023	6.80	805545	7.87	362447	9.37
240-95580-2	MSA-MW-36S-051418	146891	6.80	810002	7.87	370303	9.36
240-95580-3	MSA-MW-37S-051418	106393	6.80	789941	7.87	366364	9.36
240-95580-4	MSA-MW-35S-051418	127468	6.80	816932	7.87	377302	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD6 240-327430/2 Date Analyzed: 05/18/2018 07:49

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80518002.D Heated Purge: (Y/N) N

Calibration ID: 45138

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		586353	10.65	446231	13.60	345964	15.96
UPPER LIMIT		1172706	11.15	892462	14.10	691928	16.46
LOWER LIMIT		293177	10.15	223116	13.10	172982	15.46
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-326848/8-A		721745	10.65	438456	13.59	377610	15.96
LCS 240-326848/9-A		544407	10.65	424969	13.59	314939	15.96
MB 240-327063/5-A		818002	10.65	467628	13.59	393066	15.96
LCS 240-327063/6-A		557968	10.65	424517	13.59	318888	15.96
240-95494-2	MT-MW11S-050918	709899	10.65	409418	13.59	339432	15.96
240-95494-3	MT-MW04S-050918	655261	10.65	407422	13.59	319718	15.96
240-95494-4	MT-MW10S-050918	715265	10.65	409468	13.59	345266	15.96
240-95494-5	MT-MW02S-051018	673068	10.65	418984	13.59	349060	15.96
240-95494-6	MT-MW01S-051018	692503	10.65	450469	13.59	373847	15.96
240-95494-7	MT-MW09S-051018	680946	10.65	389268	13.59	332226	15.96
240-95580-2	MSA-MW-36S-051418	688203	10.65	386589	13.59	334437	15.95
240-95580-3	MSA-MW-37S-051418	672565	10.65	389393	13.59	330050	15.96
240-95580-4	MSA-MW-35S-051418	683511	10.65	416620	13.59	349497	15.96

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326141 Batch Start Date: 05/10/18 06:35 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00086
240-95314-F-2	MT-MW07S-050718	3510C, 8270D	T	260 mL	5 mL	6 SU	2 SU		
240-95314-G-3	MT-MW08S-050718	3510C, 8270D	T	250 mL	5 mL	6 SU	2 SU		
240-95314-F-4	MT-MW03S-050718	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
240-95314-G-5	MT-MW12S-050818	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-95314-H-6	MT-MW05S-050818	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-95314-I-7	MT-MW06S-050818	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
MB 240-326141/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-326141/9		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00058					
240-95314-F-2	MT-MW07S-050718	3510C, 8270D	T	0.4 mL					
240-95314-G-3	MT-MW08S-050718	3510C, 8270D	T	0.4 mL					
240-95314-F-4	MT-MW03S-050718	3510C, 8270D	T	0.4 mL					
240-95314-G-5	MT-MW12S-050818	3510C, 8270D	T	0.4 mL					
240-95314-H-6	MT-MW05S-050818	3510C, 8270D	T	0.4 mL					
240-95314-I-7	MT-MW06S-050818	3510C, 8270D	T	0.4 mL					
MB 240-326141/8		3510C, 8270D		0.4 mL					
LCS 240-326141/9		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3438347
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	STEVEEARLE BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3468150
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326141 Batch Start Date: 05/10/18 06:35 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326848 Batch Start Date: 05/15/18 07:56 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-95494-H-2	MT-MW11S-050918	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-95494-F-3	MT-MW04S-050918	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
240-95494-F-4	MT-MW10S-050918	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-95494-G-5	MT-MW02S-051018	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-95494-F-6	MT-MW01S-051018	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-95494-F-7	MT-MW09S-051018	3510C, 8270D	T	260 mL	5 mL	6 SU	2 SU		
MB 240-326848/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-326848/9		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00058					
240-95494-H-2	MT-MW11S-050918	3510C, 8270D	T	0.4 mL					
240-95494-F-3	MT-MW04S-050918	3510C, 8270D	T	0.4 mL					
240-95494-F-4	MT-MW10S-050918	3510C, 8270D	T	0.4 mL					
240-95494-G-5	MT-MW02S-051018	3510C, 8270D	T	0.4 mL					
240-95494-F-6	MT-MW01S-051018	3510C, 8270D	T	0.4 mL					
240-95494-F-7	MT-MW09S-051018	3510C, 8270D	T	0.4 mL					
MB 240-326848/8		3510C, 8270D		0.4 mL					
LCS 240-326848/9		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3515730
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580757
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326848 Batch Start Date: 05/15/18 07:56 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327063 Batch Start Date: 05/16/18 08:40 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-95580-F-2	MSA-MW-36S-051418	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-95580-I-3	MSA-MW-37S-051418	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-95580-H-4	MSA-MW-35S-051418	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
MB 240-327063/5		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-327063/6		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00058					
240-95580-F-2	MSA-MW-36S-051418	3510C, 8270D	T	0.4 mL					
240-95580-I-3	MSA-MW-37S-051418	3510C, 8270D	T	0.4 mL					
240-95580-H-4	MSA-MW-35S-051418	3510C, 8270D	T	0.4 mL					
MB 240-327063/5		3510C, 8270D		0.4 mL					
LCS 240-327063/6		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3515730
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580757
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
MT-MW07S-050718	240-95314-2	80
MT-MW08S-050718	240-95314-3	82
MT-MW03S-050718	240-95314-4	83
MT-MW12S-050818	240-95314-5	82
MT-MW05S-050818	240-95314-6	80
MT-MW06S-050818	240-95314-7	82
MT-MW11S-050918	240-95494-2	85
MT-MW04S-050918	240-95494-3	85
MT-MW10S-050918	240-95494-4	86
MT-MW02S-051018	240-95494-5	87
MT-MW01S-051018	240-95494-6	86
MT-MW09S-051018	240-95494-7	84
MSA-MW-36S-051418	240-95580-2	83
MSA-MW-37S-051418	240-95580-3	86
MSA-MW-35S-051418	240-95580-4	85
	MB 240-326133/10	78
	MB 240-326827/9	81
	MB 240-327232/12	83
	LCS 240-326133/11	86
	LCS 240-326827/10	89
	LCS 240-327232/13	91
MT-MW06S-050818 MS	240-95314-7 MS	91
MT-MW09S-051018 MS	240-95494-7 MS	95
MT-MW06S-050818 MSD	240-95314-7 MSD	92
MT-MW09S-051018 MSD	240-95494-7 MSD	90

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051011.D

Lab ID: LCS 240-326133/11 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	791	99	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051510.D

Lab ID: LCS 240-326827/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	850	106	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051713.D

Lab ID: LCS 240-327232/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	907	113	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051019.D

Lab ID: 240-95314-7 MS Client ID: MT-MW06S-050818 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	49 U	965	121	61-120	F1

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051522.D

Lab ID: 240-95494-7 MS Client ID: MT-MW09S-051018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	56 J	931	109	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051020.D

Lab ID: 240-95314-7 MSD Client ID: MT-MW06S-050818 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	995	124	3	23	61-120	F1

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0051523.D

Lab ID: 240-95494-7 MSD Client ID: MT-MW09S-051018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	914	107	2	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-326133/10

Matrix: Water Date Extracted: 05/10/2018 11:51

Lab File ID:(1) A0051010.D Lab File ID:(2)

Date Analyzed:(1) 05/10/2018 11:51 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-326133/11	05/10/2018 12:30	
MT-MW07S-050718	240-95314-2	05/10/2018 13:47	
MT-MW08S-050718	240-95314-3	05/10/2018 14:24	
MT-MW03S-050718	240-95314-4	05/10/2018 15:02	
MT-MW12S-050818	240-95314-5	05/10/2018 15:39	
MT-MW05S-050818	240-95314-6	05/10/2018 16:17	
MT-MW06S-050818	240-95314-7	05/10/2018 16:54	
MT-MW06S-050818 MS	240-95314-7 MS	05/10/2018 17:32	
MT-MW06S-050818 MSD	240-95314-7 MSD	05/10/2018 18:09	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-326133/10

Matrix: Water | Lab File ID: A0051010.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/10/2018 11:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 326133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	78		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-326827/9

Matrix: Water Date Extracted: 05/15/2018 13:30

Lab File ID:(1) A0051509.D Lab File ID:(2)

Date Analyzed:(1) 05/15/2018 13:30 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-326827/10	05/15/2018 14:08	
MT-MW11S-050918	240-95494-2	05/15/2018 17:58	
MT-MW04S-050918	240-95494-3	05/15/2018 18:35	
MT-MW10S-050918	240-95494-4	05/15/2018 19:13	
MT-MW02S-051018	240-95494-5	05/15/2018 19:51	
MT-MW01S-051018	240-95494-6	05/15/2018 20:28	
MT-MW09S-051018	240-95494-7	05/15/2018 21:05	
MT-MW09S-051018 MS	240-95494-7 MS	05/15/2018 21:42	
MT-MW09S-051018 MSD	240-95494-7 MSD	05/15/2018 22:19	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-326827/9

Matrix: Water Lab File ID: A0051509.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/15/2018 13:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 326827 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-327232/12

Matrix: Water Date Extracted: 05/17/2018 11:45

Lab File ID:(1) A0051712.D Lab File ID:(2)

Date Analyzed:(1) 05/17/2018 11:45 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-327232/13	05/17/2018 12:22	
MSA-MW-36S-051418	240-95580-2	05/17/2018 17:59	
MSA-MW-37S-051418	240-95580-3	05/17/2018 18:36	
MSA-MW-35S-051418	240-95580-4	05/17/2018 19:13	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-327232/12

Matrix: Water Lab File ID: A0051712.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/17/2018 11:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 327232 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVRT 240-326133/4 Date Analyzed: 05/10/2018 08:04

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0051004.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.38		
UPPER LIMIT				10.48		
LOWER LIMIT				10.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-326133/4		05/10/2018 08:04	A0051004.D	10.38		
CCV 240-326133/9		05/10/2018 11:13	A0051009.D	10.39		
MB 240-326133/10		05/10/2018 11:51	A0051010.D	10.39		
LCS 240-326133/11		05/10/2018 12:30	A0051011.D	10.38		
240-95314-2	MT-MW07S-050718	05/10/2018 13:47	A0051013.D	10.38		
240-95314-3	MT-MW08S-050718	05/10/2018 14:24	A0051014.D	10.38		
240-95314-4	MT-MW03S-050718	05/10/2018 15:02	A0051015.D	10.38		
240-95314-5	MT-MW12S-050818	05/10/2018 15:39	A0051016.D	10.38		
240-95314-6	MT-MW05S-050818	05/10/2018 16:17	A0051017.D	10.38		
240-95314-7	MT-MW06S-050818	05/10/2018 16:54	A0051018.D	10.38		
240-95314-7 MS	MT-MW06S-050818 MS	05/10/2018 17:32	A0051019.D	10.38		
240-95314-7 MSD	MT-MW06S-050818 MSD	05/10/2018 18:09	A0051020.D	10.38		
CCV 240-326133/21		05/10/2018 18:46	A0051021.D	10.38		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVRT 240-326827/4 Date Analyzed: 05/15/2018 10:16

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0051504.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.38		
UPPER LIMIT				10.48		
LOWER LIMIT				10.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-326827/4		05/15/2018 10:16	A0051504.D	10.38		
MB 240-326827/9		05/15/2018 13:30	A0051509.D	10.38		
LCS 240-326827/10		05/15/2018 14:08	A0051510.D	10.39		
CCV 240-326827/15		05/15/2018 17:20	A0051515.D	10.38		
240-95494-2	MT-MW11S-050918	05/15/2018 17:58	A0051516.D	10.38		
240-95494-3	MT-MW04S-050918	05/15/2018 18:35	A0051517.D	10.38		
240-95494-4	MT-MW10S-050918	05/15/2018 19:13	A0051518.D	10.38		
240-95494-5	MT-MW02S-051018	05/15/2018 19:51	A0051519.D	10.38		
240-95494-6	MT-MW01S-051018	05/15/2018 20:28	A0051520.D	10.38		
240-95494-7	MT-MW09S-051018	05/15/2018 21:05	A0051521.D	10.38		
240-95494-7 MS	MT-MW09S-051018 MS	05/15/2018 21:42	A0051522.D	10.38		
240-95494-7 MSD	MT-MW09S-051018 MSD	05/15/2018 22:19	A0051523.D	10.38		
CCV 240-326827/24		05/15/2018 22:56	A0051524.D	10.38		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVRT 240-327232/4 Date Analyzed: 05/17/2018 06:46

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0051704.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.38		
UPPER LIMIT				10.48		
LOWER LIMIT				10.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-327232/4		05/17/2018 06:46	A0051704.D	10.38		
CCV 240-327232/11		05/17/2018 11:06	A0051711.D	10.39		
MB 240-327232/12		05/17/2018 11:45	A0051712.D	10.39		
LCS 240-327232/13		05/17/2018 12:22	A0051713.D	10.39		
CCV 240-327232/21		05/17/2018 17:21	A0051721.D	10.39		
240-95580-2	MSA-MW-36S-051418	05/17/2018 17:59	A0051722.D	10.38		
240-95580-3	MSA-MW-37S-051418	05/17/2018 18:36	A0051723.D	10.38		
240-95580-4	MSA-MW-35S-051418	05/17/2018 19:13	A0051724.D	10.38		
CCV 240-327232/27		05/17/2018 21:03	A0051727.D	10.38		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-326133/4 Calibration Date: 05/10/2018 08:04

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		217536		885	800	10.7	20.0
C6-C12	Lin1		244606		868	800	8.5	20.0
Trifluorotoluene (Surr)	Lin1		207373		35.1	40.0	-12.1	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-326133/4 Calibration Date: 05/10/2018 08:04

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051004.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.03
C6-C12	13.22	6.92	19.52
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326133/9 Calibration Date: 05/10/2018 11:13

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051009.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		205662		835	800	4.4	20.0
C6-C12	Lin1		231974		818	800	2.3	20.0
Trifluorotoluene (Surr)	Lin1		192949		32.6	40.0	-18.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326133/9 Calibration Date: 05/10/2018 11:13

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051009.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.03
C6-C12	13.22	6.92	19.52
Trifluorotoluene (Surr)	10.39	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326133/21 Calibration Date: 05/10/2018 18:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051021.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		213863		870	800	8.7	20.0
C6-C12	Lin1		244649		868	800	8.5	20.0
Trifluorotoluene (Surr)	Lin1		202509		34.3	40.0	-14.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326133/21 Calibration Date: 05/10/2018 18:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051021.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.03
C6-C12	13.22	6.92	19.52
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-326827/4 Calibration Date: 05/15/2018 10:16

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051504.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		211881		861	800	7.7	20.0
C6-C12	Lin1		240021		850	800	6.2	20.0
Trifluorotoluene (Surr)	Lin1		207727		35.2	40.0	-12.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-326827/4 Calibration Date: 05/15/2018 10:16

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051504.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.93	17.05
C6-C12	13.22	6.93	19.52
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326827/15 Calibration Date: 05/15/2018 17:20

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051515.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		222804		908	800	13.5	20.0
C6-C12	Lin1		251060		893	800	11.7	20.0
Trifluorotoluene (Surr)	Lin1		219446		37.3	40.0	-6.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326827/15 Calibration Date: 05/15/2018 17:20

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051515.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.93	17.05
C6-C12	13.22	6.93	19.52
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326827/24 Calibration Date: 05/15/2018 22:56

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051524.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		217709		886	800	10.8	20.0
C6-C12	Lin1		243060		862	800	7.7	20.0
Trifluorotoluene (Surr)	Lin1		219444		37.3	40.0	-6.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326827/24 Calibration Date: 05/15/2018 22:56

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051524.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.93	17.05
C6-C12	13.22	6.93	19.52
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-327232/4 Calibration Date: 05/17/2018 06:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051704.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		206652		839	800	4.9	20.0
C6-C12	Lin1		234117		827	800	3.4	20.0
Trifluorotoluene (Surr)	Lin1		203494		34.5	40.0	-13.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCVRT 240-327232/4 Calibration Date: 05/17/2018 06:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051704.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.04
C6-C12	13.21	6.92	19.51
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/11 Calibration Date: 05/17/2018 11:06

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051711.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		207876		845	800	5.6	20.0
C6-C12	Lin1		233735		825	800	3.2	20.0
Trifluorotoluene (Surr)	Lin1		197965		33.5	40.0	-16.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/11 Calibration Date: 05/17/2018 11:06

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051711.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.04
C6-C12	13.21	6.92	19.51
Trifluorotoluene (Surr)	10.39	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/21 Calibration Date: 05/17/2018 17:21

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051721.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		205629		835	800	4.4	20.0
C6-C12	Lin1		230139		811	800	1.4	20.0
Trifluorotoluene (Surr)	Lin1		222875		37.9	40.0	-5.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/21 Calibration Date: 05/17/2018 17:21

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051721.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.04
C6-C12	13.21	6.92	19.51
Trifluorotoluene (Surr)	10.39	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/27 Calibration Date: 05/17/2018 21:03

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051727.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		203386		826	800	3.2	20.0
C6-C12	Lin1		227664		801	800	0.2	20.0
Trifluorotoluene (Surr)	Lin1		211847		35.9	40.0	-10.2	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327232/27 Calibration Date: 05/17/2018 21:03

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0051727.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.92	17.04
C6-C12	13.21	6.92	19.51
Trifluorotoluene (Surr)	10.38	10.33	10.43

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 322909 Batch Start Date: 04/18/18 08:10 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	
STD1 240-322909/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-322909/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-322909/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-322909/7 ICRT		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-322909/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-322909/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-322909/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		
STD8 240-322909/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		
ICV 240-322909/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326133 Batch Start Date: 05/10/18 08:04 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-326133/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-326133/9		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-326133/10		8015C		5 mL	5 mL				1 uL
LCS 240-326133/11		8015C		5 mL	5 mL			40 uL	1 uL
240-95314-A-2	MT-MW07S-050718	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-3	MT-MW08S-050718	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-4	MT-MW03S-050718	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-5	MT-MW12S-050818	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-6	MT-MW05S-050818	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-7	MT-MW06S-050818	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95314-A-7 MS	MT-MW06S-050818	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-95314-A-7 MSD	MT-MW06S-050818	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
CCV 240-326133/21		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326827 Batch Start Date: 05/15/18 10:16 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-326827/4		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-326827/9		8015C		5 mL	5 mL				1 uL
LCS 240-326827/10		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-326827/15		8015C		5 mL	5 mL		40 uL		1 uL
240-95494-A-2	MT-MW11S-050918	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-3	MT-MW04S-050918	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-4	MT-MW10S-050918	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-5	MT-MW02S-051018	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-6	MT-MW01S-051018	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-7	MT-MW09S-051018	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95494-A-7 MS	MT-MW09S-051018	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-95494-A-7 MSD	MT-MW09S-051018	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
CCV 240-326827/24		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327232 Batch Start Date: 05/17/18 06:46 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-327232/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-327232/11		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-327232/12		8015C		5 mL	5 mL				1 uL
LCS 240-327232/13		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-327232/21		8015C		5 mL	5 mL		40 uL		1 uL
240-95580-A-2	MSA-MW-36S-051418	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95580-A-3	MSA-MW-37S-051418	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95580-A-4	MSA-MW-35S-051418	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-327232/27		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MT-MW07S-050718	240-95314-2	75
MT-MW08S-050718	240-95314-3	65
MT-MW03S-050718	240-95314-4	74
MT-MW12S-050818	240-95314-5	71
MT-MW05S-050818	240-95314-6	69
MT-MW06S-050818	240-95314-7	68
MT-MW11S-050918	240-95494-2	78
MT-MW04S-050918	240-95494-3	73
MT-MW10S-050918	240-95494-4	72
MT-MW02S-051018	240-95494-5	79
MT-MW01S-051018	240-95494-6	74
MT-MW09S-051018	240-95494-7	77
MSA-MW-36S-051418	240-95580-2	69
MSA-MW-37S-051418	240-95580-3	71
MSA-MW-35S-051418	240-95580-4	72
	MB 240-326204/9-A	74
	MB 240-326893/10-A	76
	MB 240-327290/7-A	77
	LCS 240-326204/10-A	73
	LCS 240-326893/11-A	74
	LCS 240-327290/8-A	72

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R051120.D

Lab ID: LCS 240-326204/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1400	70	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R051607.D

Lab ID: LCS 240-326893/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1340	67	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R051809.D

Lab ID: LCS 240-327290/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1280	64	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-326204/9-A

Matrix: Water Date Extracted: 05/10/2018 10:01

Lab File ID:(1) R051119.D Lab File ID:(2)

Date Analyzed:(1) 05/12/2018 00:23 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-326204/10-A	05/12/2018 00:50	
MT-MW07S-050718	240-95314-2	05/12/2018 02:12	
MT-MW08S-050718	240-95314-3	05/12/2018 02:39	
MT-MW03S-050718	240-95314-4	05/12/2018 03:06	
MT-MW12S-050818	240-95314-5	05/12/2018 03:33	
MT-MW05S-050818	240-95314-6	05/12/2018 04:01	
MT-MW06S-050818	240-95314-7	05/12/2018 04:28	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-326204/9-A

Matrix: Water | Lab File ID: R051119.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/10/2018 10:01

Sample wt/vol: 250(mL) | Date Analyzed: 05/12/2018 00:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 326494 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	74		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-326893/10-A

Matrix: Water Date Extracted: 05/15/2018 10:15

Lab File ID:(1) R051606.D Lab File ID:(2)

Date Analyzed:(1) 05/16/2018 12:06 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-326893/11-A	05/16/2018 12:33	
MT-MW11S-050918	240-95494-2	05/16/2018 13:00	
MT-MW04S-050918	240-95494-3	05/16/2018 13:28	
MT-MW10S-050918	240-95494-4	05/16/2018 13:55	
MT-MW02S-051018	240-95494-5	05/16/2018 14:23	
MT-MW01S-051018	240-95494-6	05/16/2018 14:50	
MT-MW09S-051018	240-95494-7	05/16/2018 15:17	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-326893/10-A

Matrix: Water | Lab File ID: R051606.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/15/2018 10:15

Sample wt/vol: 250(mL) | Date Analyzed: 05/16/2018 12:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327146 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	76		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: MB 240-327290/7-A

Matrix: Water Date Extracted: 05/17/2018 10:22

Lab File ID:(1) R051808.D Lab File ID:(2)

Date Analyzed:(1) 05/18/2018 17:16 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-327290/8-A	05/18/2018 17:43	
MSA-MW-36S-051418	240-95580-2	05/18/2018 18:11	
MSA-MW-37S-051418	240-95580-3	05/18/2018 18:38	
MSA-MW-35S-051418	240-95580-4	05/18/2018 19:05	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327290/7-A

Matrix: Water | Lab File ID: R051808.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/17/2018 10:22

Sample wt/vol: 250(mL) | Date Analyzed: 05/18/2018 17:16

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 327547 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	77		37-130

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCV 240-326494/7 Date Analyzed: 05/11/2018 18:56

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R051107.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-326494/7 CCVRT		05/11/2018 18:56	R051107.D	8.42		
CCV 240-326494/18		05/11/2018 23:55	R051118.D	8.42		
MB 240-326204/9-A		05/12/2018 00:23	R051119.D	8.43		
LCS 240-326204/10-A		05/12/2018 00:50	R051120.D	8.42		
240-95314-2	MT-MW07S-050718	05/12/2018 02:12	R051123.D	8.42		
240-95314-3	MT-MW08S-050718	05/12/2018 02:39	R051124.D	8.42		
240-95314-4	MT-MW03S-050718	05/12/2018 03:06	R051125.D	8.43		
240-95314-5	MT-MW12S-050818	05/12/2018 03:33	R051126.D	8.42		
240-95314-6	MT-MW05S-050818	05/12/2018 04:01	R051127.D	8.42		
240-95314-7	MT-MW06S-050818	05/12/2018 04:28	R051128.D	8.42		
CCV 240-326494/29		05/12/2018 04:55	R051129.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVRT 240-327146/5 Date Analyzed: 05/16/2018 11:38

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R051605.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-327146/5		05/16/2018 11:38	R051605.D	8.42		
MB 240-326893/10-A		05/16/2018 12:06	R051606.D	8.43		
LCS 240-326893/11-A		05/16/2018 12:33	R051607.D	8.42		
240-95494-2	MT-MW11S-050918	05/16/2018 13:00	R051608.D	8.42		
240-95494-3	MT-MW04S-050918	05/16/2018 13:28	R051609.D	8.43		
240-95494-4	MT-MW10S-050918	05/16/2018 13:55	R051610.D	8.42		
240-95494-5	MT-MW02S-051018	05/16/2018 14:23	R051611.D	8.42		
240-95494-6	MT-MW01S-051018	05/16/2018 14:50	R051612.D	8.42		
240-95494-7	MT-MW09S-051018	05/16/2018 15:17	R051613.D	8.42		
CCV 240-327146/16		05/16/2018 16:39	R051616.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Sample No.: CCVRT 240-327547/7 Date Analyzed: 05/18/2018 16:49

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R051807.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-327547/7		05/18/2018 16:49	R051807.D	8.42		
MB 240-327290/7-A		05/18/2018 17:16	R051808.D	8.42		
LCS 240-327290/8-A		05/18/2018 17:43	R051809.D	8.42		
240-95580-2	MSA-MW-36S-051418	05/18/2018 18:11	R051810.D	8.42		
240-95580-3	MSA-MW-37S-051418	05/18/2018 18:38	R051811.D	8.42		
240-95580-4	MSA-MW-35S-051418	05/18/2018 19:05	R051812.D	8.42		
CCV 240-327547/16		05/18/2018 20:54	R051816.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95314-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII 8015C

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/7 Calibration Date: 05/11/2018 18:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	836182		98300	100000	-1.7	20.0
o-Terphenyl (Surr)	Ave	998632	933119		7480	8000	-6.6	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/7 Calibration Date: 05/11/2018 18:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051107.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/18 Calibration Date: 05/11/2018 23:55

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051118.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	854302		100000	100000	0.4	20.0
o-Terphenyl (Surr)	Ave	998632	986169		7900	8000	-1.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/18 Calibration Date: 05/11/2018 23:55

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051118.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/29 Calibration Date: 05/12/2018 04:55

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051129.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	837994		98500	100000	-1.5	20.0
o-Terphenyl (Surr)	Ave	998632	975325		7810	8000	-2.3	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-326494/29 Calibration Date: 05/12/2018 04:55

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051129.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327146/5 Calibration Date: 05/16/2018 11:38

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051605.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	827445		97300	100000	-2.7	20.0
o-Terphenyl (Surr)	Ave	998632	941355		7540	8000	-5.7	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327146/5 Calibration Date: 05/16/2018 11:38

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051605.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327146/16 Calibration Date: 05/16/2018 16:39

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051616.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	834046		98100	100000	-1.9	20.0
o-Terphenyl (Surr)	Ave	998632	956668		7660	8000	-4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327146/16 Calibration Date: 05/16/2018 16:39

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051616.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327547/7 Calibration Date: 05/18/2018 16:49

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051807.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	857226		101000	100000	0.8	20.0
o-Terphenyl (Surr)	Ave	998632	992697		7950	8000	-0.6	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327547/7 Calibration Date: 05/18/2018 16:49

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051807.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327547/16 Calibration Date: 05/18/2018 20:54

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051816.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	862438		101000	100000	1.4	20.0
o-Terphenyl (Surr)	Ave	998632	980544		7860	8000	-1.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: CCV 240-327547/16 Calibration Date: 05/18/2018 20:54

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R051816.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: RTC 240-326494/6 Date Analyzed: 05/11/2018 18:28

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R051106.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: RTC 240-327146/4 Date Analyzed: 05/16/2018 11:11

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R051604.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: RTC 240-327547/6 Date Analyzed: 05/18/2018 16:22

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R051806.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326204 Batch Start Date: 05/10/18 12:00 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/11/18 06:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00085	exOTPSURRW 00030
240-95314-H-2	MT-MW07S-050718	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95314-H-3	MT-MW08S-050718	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-95314-G-4	MT-MW03S-050718	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95314-F-5	MT-MW12S-050818	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-95314-F-6	MT-MW05S-050818	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-95314-G-7	MT-MW06S-050818	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-326204/9		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-326204/10		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3515730
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3569282

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 326893 Batch Start Date: 05/15/18 11:00 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/16/18 05:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-95494-F-2	MT-MW11S-050918	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95494-G-3	MT-MW04S-050918	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95494-H-4	MT-MW10S-050918	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95494-H-5	MT-MW02S-051018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95494-H-6	MT-MW01S-051018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95494-G-7	MT-MW09S-051018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-326893/10		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-326893/11		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3515730
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3580757

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Batch Number: 327290 Batch Start Date: 05/17/18 11:00 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/18/18 05:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-95580-H-2	MSA-MW-36S-051418	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95580-G-3	MSA-MW-37S-051418	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95580-I-4	MSA-MW-35S-051418	3520C, 8015C	T	270 mL	5 mL	4 SU	2 SU		0.2 mL
MB 240-327290/7		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-327290/8		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
MT-MW07S-050718	240-95314-2
MT-MW08S-050718	240-95314-3
MT-MW03S-050718	240-95314-4
MT-MW12S-050818	240-95314-5
MT-MW05S-050818	240-95314-6
MT-MW06S-050818	240-95314-7
MT-MW11S-050918	240-95494-2
MT-MW04S-050918	240-95494-3
MT-MW10S-050918	240-95494-4
MT-MW02S-051018	240-95494-5
MT-MW01S-051018	240-95494-6
MT-MW09S-051018	240-95494-7
MSA-MW-36S-051418	240-95580-2
MSA-MW-37S-051418	240-95580-3
MSA-MW-35S-051418	240-95580-4

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-326944/7 05/15/2018 11:15				CCV 240-326944/198 05/16/2018 01:39				CCV 240-326944/210 05/16/2018 02:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	48.5		50.0	97	48.7		50.0	97
Arsenic	41.2		40.0	103	48.5		50.0	97	49.1		50.0	98
Barium	39.7		40.0	99	47.6		50.0	95	47.9		50.0	96
Cadmium	40.0		40.0	100	49.2		50.0	98	49.1		50.0	98
Chromium	40.1		40.0	100	49.4		50.0	99	48.9		50.0	98
Cobalt	40.6		40.0	101	48.9		50.0	98	48.1		50.0	96
Copper	41.7		40.0	104	49.1		50.0	98	47.6		50.0	95
Dissolved Iron	10100		10000	101	12500		12500	100	12300		12500	98
Dissolved Lead	40.9		40.0	102	49.4		50.0	99	49.2		50.0	98
Dissolved Manganese	203		200	101	247		250	99	243		250	97
Dissolved Molybdenum	39.6		40.0	99	50.4		50.0	101	50.5		50.0	101
Dissolved Nickel	40.3		40.0	101	49.7		50.0	99	51.1		50.0	102
Dissolved Selenium	40.4		40.0	101	48.7		50.0	97	49.8		50.0	100
Dissolved Silver	40.2		40.0	101	50.4		50.0	101	50.2		50.0	100
Dissolved Thallium	39.9		40.0	100	49.0		50.0	98	49.0		50.0	98
Dissolved Vanadium	40.3		40.0	101	48.4		50.0	97	48.5		50.0	97
Zinc	40.6		40.0	101	48.6		50.0	97	47.6		50.0	95
Beryllium	39.9		40.0	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	CCV 240-326944/231 05/16/2018 04:08				CCV 240-326944/243 05/16/2018 05:03							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.8		50.0	98	48.6		50.0	97				
Arsenic	49.3		50.0	99	49.5		50.0	99				
Barium	48.0		50.0	96	49.6		50.0	99				
Cadmium	48.3		50.0	97	48.9		50.0	98				
Chromium	49.3		50.0	99	49.1		50.0	98				
Cobalt	48.6		50.0	97	48.7		50.0	97				
Copper	48.4		50.0	97	48.9		50.0	98				
Dissolved Iron	12400		12500	100	12700		12500	101				
Dissolved Lead	49.7		50.0	99	49.4		50.0	99				
Dissolved Manganese	246		250	98	248		250	99				
Dissolved Molybdenum	50.8		50.0	102	50.2		50.0	100				
Dissolved Nickel	51.1		50.0	102	49.6		50.0	99				
Dissolved Selenium	51.1		50.0	102	51.3		50.0	103				
Dissolved Silver	51.0		50.0	102	49.7		50.0	99				
Dissolved Thallium	48.9		50.0	98	48.5		50.0	97				
Dissolved Vanadium	48.6		50.0	97	50.2		50.0	100				
Zinc	47.9		50.0	96	49.4		50.0	99				
Beryllium					44.8		50.0	90				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-326944/7 05/15/2018 11:15				CCV 240-326944/186 05/16/2018 00:45				CCV 240-326944/219 05/16/2018 03:14			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	47.8		50.0	96	49.0		50.0	98
Arsenic	41.2		40.0	103	48.2		50.0	96	49.8		50.0	100
Barium	39.7		40.0	99	47.7		50.0	95	48.7		50.0	97
Cadmium	40.0		40.0	100	48.4		50.0	97	48.9		50.0	98
Chromium	40.1		40.0	100	48.6		50.0	97	49.4		50.0	99
Cobalt	40.6		40.0	101	49.1		50.0	98	48.7		50.0	97
Copper	41.7		40.0	104	49.2		50.0	98	48.9		50.0	98
Dissolved Iron	10100		10000	101	12400		12500	100	12600		12500	101
Dissolved Lead	40.9		40.0	102	49.4		50.0	99	49.7		50.0	99
Dissolved Manganese	203		200	101	246		250	98	251		250	100
Dissolved Molybdenum	39.6		40.0	99	50.9		50.0	102	50.5		50.0	101
Dissolved Nickel	40.3		40.0	101	50.8		50.0	102	50.4		50.0	101
Dissolved Selenium	40.4		40.0	101	50.1		50.0	100	52.0		50.0	104
Dissolved Silver	40.2		40.0	101	50.7		50.0	101	50.6		50.0	101
Dissolved Thallium	39.9		40.0	100	48.7		50.0	97	49.3		50.0	99
Dissolved Vanadium	40.3		40.0	101	48.8		50.0	98	49.5		50.0	99
Zinc	40.6		40.0	101	48.2		50.0	96	48.5		50.0	97
Beryllium	39.9		40.0	100	45.0		50.0	90				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	CCV 240-326944/252 05/16/2018 05:44											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.1		50.0	96								
Arsenic	49.4		50.0	99								
Barium	48.8		50.0	98								
Cadmium	49.0		50.0	98								
Chromium	49.0		50.0	98								
Cobalt	48.6		50.0	97								
Copper	47.7		50.0	95								
Dissolved Iron	12600		12500	101								
Dissolved Lead	49.4		50.0	99								
Dissolved Manganese	249		250	100								
Dissolved Molybdenum	50.6		50.0	101								
Dissolved Nickel	50.8		50.0	102								
Dissolved Selenium	50.1		50.0	100								
Dissolved Silver	50.0		50.0	100								
Dissolved Thallium	48.8		50.0	98								
Dissolved Vanadium	49.1		50.0	98								
Zinc	49.0		50.0	98								
Beryllium												

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSCRI6020AW_00066 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00066

Analyte	ICVL 240-326944/9 05/15/2018 11:24				CCVL 240-326944/221 05/16/2018 03:23				CCVL 240-326944/254 05/16/2018 05:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.88	J	2.00	94	1.81	J	2.00	90	1.89	J	2.00	95
Arsenic	4.51	J	5.00	90	4.61	J	5.00	92	5.10		5.00	102
Barium	4.68	J	5.00	94	4.57	J	5.00	91	4.62	J	5.00	92
Cadmium	0.977	J	1.00	98	0.866	J	1.00	87	0.904	J	1.00	90
Chromium	1.92	J	2.00	96	1.86	J	2.00	93	1.92	J	2.00	96
Cobalt	0.994	J	1.00	99	0.987	J	1.00	99	1.01		1.00	101
Copper	2.01		2.00	101	1.92	J	2.00	96	2.06		2.00	103
Dissolved Iron	102		100	102	100		100	100	101		100	101
Dissolved Lead	0.892	J	1.00	89	0.802	J	1.00	80	0.853	J	1.00	85
Dissolved Manganese	4.83	J	5.00	97	4.89	J	5.00	98	5.30		5.00	106
Dissolved Molybdenum	5.10		5.00	102	5.19		5.00	104	5.02		5.00	100
Dissolved Nickel	1.85	J	2.00	93	1.82	J	2.00	91	1.94	J	2.00	97
Dissolved Selenium	4.85	J	5.00	97	5.34		5.00	107	5.08		5.00	102
Dissolved Silver	0.990	J	1.00	99	1.02		1.00	102	1.05		1.00	105
Dissolved Thallium	0.987	J	1.00	99	0.967	J	1.00	97	0.946	J	1.00	95
Dissolved Vanadium	4.64	J	5.00	93	4.54	J	5.00	91	4.62	J	5.00	92
Zinc	18.4	J	20.0	92	18.6	J	20.0	93	19.2	J	20.0	96
Beryllium	0.789	J	1.00	79	0.812	J	1.00	81	0.854	J	1.00	85

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-327282/7 05/16/2018 12:07				CCV 240-327282/52 05/16/2018 15:31				CCV 240-327282/64 05/16/2018 16:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	49.4		50.0	99	48.4		50.0	97
Arsenic	40.7		40.0	102	51.9		50.0	104	50.7		50.0	101
Barium	40.6		40.0	102	49.5		50.0	99	48.5		50.0	97
Beryllium	41.1		40.0	103	47.9		50.0	96	47.2		50.0	94
Cadmium	40.8		40.0	102	49.8		50.0	100	49.6		50.0	99
Chromium	40.2		40.0	101	50.2		50.0	100	49.8		50.0	100
Cobalt	41.4		40.0	103	51.2		50.0	102	51.0		50.0	102
Copper	41.8		40.0	105	51.5		50.0	103	51.1		50.0	102
Dissolved Manganese	192		200	96	240		250	96	240		250	96
Iron	10000		10000	100	12800		12500	102	12700		12500	102
Lead	41.9		40.0	105	50.6		50.0	101	51.0		50.0	102
Molybdenum	40.5		40.0	101	48.7		50.0	97	48.3		50.0	97
Nickel	39.6		40.0	99	48.3		50.0	97	49.0		50.0	98
Selenium	41.0		40.0	102	51.1		50.0	102	49.9		50.0	100
Silver	40.4		40.0	101	49.8		50.0	100	49.4		50.0	99
Thallium	40.5		40.0	101	50.4		50.0	101	50.6		50.0	101
Vanadium	39.5		40.0	99	49.4		50.0	99	48.6		50.0	97
Zinc	41.0		40.0	103	50.2		50.0	100	49.6		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	CCV 240-327282/78 05/16/2018 17:28				CCV 240-327282/90 05/16/2018 18:22				CCV 240-327282/102 05/16/2018 19:16			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.0		50.0	100	49.1		50.0	98	48.0		50.0	96
Arsenic	51.5		50.0	103	53.3		50.0	107	49.2		50.0	98
Barium	49.1		50.0	98	48.9		50.0	98	47.7		50.0	95
Beryllium	48.9		50.0	98	49.0		50.0	98	47.9		50.0	96
Cadmium	50.3		50.0	101	49.5		50.0	99	48.4		50.0	97
Chromium	50.4		50.0	101	50.7		50.0	101	48.8		50.0	98
Cobalt	51.3		50.0	103	51.9		50.0	104	49.8		50.0	100
Copper	51.8		50.0	104	52.2		50.0	104	50.0		50.0	100
Dissolved Manganese	242		250	97	243		250	97	235		250	94
Iron	12800		12500	103	12800		12500	103	12400		12500	99
Lead	50.6		50.0	101	51.7		50.0	103	49.6		50.0	99
Molybdenum	49.9		50.0	100	48.9		50.0	98	47.7		50.0	95
Nickel	49.3		50.0	99	47.1		50.0	94	47.7		50.0	95
Selenium	51.8		50.0	104	52.9		50.0	106	49.7		50.0	99
Silver	50.3		50.0	101	49.3		50.0	99	48.5		50.0	97
Thallium	50.3		50.0	101	50.7		50.0	101	49.5		50.0	99
Vanadium	49.4		50.0	99	49.7		50.0	99	47.1		50.0	94
Zinc	51.2		50.0	102	52.1		50.0	104	49.7		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-327282/7 05/16/2018 12:07				CCV 240-327282/40 05/16/2018 14:37				CCV 240-327282/66 05/16/2018 16:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	50.0		50.0	100	49.1		50.0	98
Arsenic	40.7		40.0	102	52.2		50.0	104	48.6		50.0	97
Barium	40.6		40.0	102	49.9		50.0	100	49.0		50.0	98
Beryllium	41.1		40.0	103	49.8		50.0	100	48.4		50.0	97
Cadmium	40.8		40.0	102	49.7		50.0	99	49.7		50.0	99
Chromium	40.2		40.0	101	50.6		50.0	101	49.3		50.0	99
Cobalt	41.4		40.0	103	52.2		50.0	104	50.1		50.0	100
Copper	41.8		40.0	105	51.6		50.0	103	49.5		50.0	99
Dissolved Manganese	192		200	96	245		250	98	235		250	94
Iron	10000		10000	100	12900		12500	103	12400		12500	99
Lead	41.9		40.0	105	50.3		50.0	101	50.2		50.0	100
Molybdenum	40.5		40.0	101	49.4		50.0	99	49.7		50.0	99
Nickel	39.6		40.0	99	48.5		50.0	97	50.5		50.0	101
Selenium	41.0		40.0	102	52.5		50.0	105	49.9		50.0	100
Silver	40.4		40.0	101	50.1		50.0	100	49.4		50.0	99
Thallium	40.5		40.0	101	50.0		50.0	100	49.6		50.0	99
Vanadium	39.5		40.0	99	49.7		50.0	99	48.5		50.0	97
Zinc	41.0		40.0	103	51.8		50.0	104	48.7		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	CCV 240-327282/109 05/16/2018 19:48											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.9		50.0	100								
Arsenic	50.8		50.0	102								
Barium	50.2		50.0	100								
Beryllium	49.5		50.0	99								
Cadmium	50.2		50.0	100								
Chromium	49.5		50.0	99								
Cobalt	50.5		50.0	101								
Copper	50.1		50.0	100								
Dissolved Manganese	239		250	96								
Iron	12700		12500	101								
Lead	50.2		50.0	100								
Molybdenum	49.4		50.0	99								
Nickel	49.6		50.0	99								
Selenium	51.2		50.0	102								
Silver	50.3		50.0	101								
Thallium	49.9		50.0	100								
Vanadium	48.4		50.0	97								
Zinc	49.6		50.0	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00066

Analyte	ICV 240-327282/7 05/16/2018 12:07				CCVL 240-327282/68 05/16/2018 16:43				CCVL 240-327282/111 05/16/2018 19:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	1.86	J	2.00	93	2.04		2.00	102
Arsenic	40.7		40.0	102	4.99	J	5.00	100	4.45	J	5.00	89
Barium	40.6		40.0	102	4.59	J	5.00	92	4.68	J	5.00	94
Beryllium	41.1		40.0	103	1.00		1.00	100	0.919	J	1.00	92
Cadmium	40.8		40.0	102	1.02		1.00	102	0.954	J	1.00	95
Chromium	40.2		40.0	101	2.01		2.00	100	2.00		2.00	100
Cobalt	41.4		40.0	103	1.07		1.00	107	1.11		1.00	111
Copper	41.8		40.0	105	2.12		2.00	106	2.02		2.00	101
Dissolved Manganese	192		200	96	4.93	J	5.00	99	5.71		5.00	114
Iron	10000		10000	100	103		100	103	99.4	J	100	99
Lead	41.9		40.0	105	1.03		1.00	103	0.984	J	1.00	98
Molybdenum	40.5		40.0	101	4.89	J	5.00	98	4.79	J	5.00	96
Nickel	39.6		40.0	99	1.89	J	2.00	95	1.94	J	2.00	97
Selenium	41.0		40.0	102	5.23		5.00	105	4.74	J	5.00	95
Silver	40.4		40.0	101	1.03		1.00	103	1.05		1.00	105
Thallium	40.5		40.0	101	1.03		1.00	103	0.968	J	1.00	97
Vanadium	39.5		40.0	99	4.70	J	5.00	94	4.81	J	5.00	96
Zinc	41.0		40.0	103	20.5		20.0	103	19.8	J	20.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-327536/7 05/18/2018 10:22				CCV 240-327536/198 05/19/2018 00:53							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	49.8		50.0	100				
Arsenic	40.2		40.0	101	49.5		50.0	99				
Barium	39.4		40.0	99	47.9		50.0	96				
Cadmium	40.8		40.0	102	49.8		50.0	100				
Chromium	39.7		40.0	99	48.4		50.0	97				
Cobalt	40.5		40.0	101	49.5		50.0	99				
Copper	41.7		40.0	104	50.0		50.0	100				
Dissolved Iron	9840		10000	98	12300		12500	98				
Dissolved Lead	41.5		40.0	104	49.6		50.0	99				
Dissolved Manganese	198		200	99	243		250	97				
Dissolved Molybdenum	40.1		40.0	100	50.7		50.0	101				
Dissolved Selenium	39.3		40.0	98	50.3		50.0	101				
Dissolved Silver	40.0		40.0	100	48.7		50.0	97				
Dissolved Thallium	40.6		40.0	102	49.2		50.0	98				
Dissolved Vanadium	38.9		40.0	97	48.5		50.0	97				
Zinc	40.2		40.0	101	49.4		50.0	99				
Nickel	39.9		40.0	100	47.7		50.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-327536/7 05/18/2018 10:22				CCV 240-327536/186 05/18/2018 23:58				CCV 240-327536/209 05/19/2018 01:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.4		40.0	101	49.9		50.0	100	49.1		50.0	98
Arsenic	40.2		40.0	101	50.8		50.0	102	49.2		50.0	98
Barium	39.4		40.0	99	48.9		50.0	98	47.3		50.0	95
Cadmium	40.8		40.0	102	49.6		50.0	99	49.2		50.0	98
Chromium	39.7		40.0	99	48.7		50.0	97	49.4		50.0	99
Cobalt	40.5		40.0	101	49.8		50.0	100	49.5		50.0	99
Copper	41.7		40.0	104	49.6		50.0	99	50.0		50.0	100
Dissolved Iron	9840		10000	98	12500		12500	100	12500		12500	100
Dissolved Lead	41.5		40.0	104	48.3		50.0	97	49.8		50.0	100
Dissolved Manganese	198		200	99	246		250	98	244		250	98
Dissolved Molybdenum	40.1		40.0	100	49.6		50.0	99	51.0		50.0	102
Dissolved Selenium	39.3		40.0	98	52.6		50.0	105	50.8		50.0	102
Dissolved Silver	40.0		40.0	100	48.7		50.0	97	49.0		50.0	98
Dissolved Thallium	40.6		40.0	102	47.8		50.0	96	49.0		50.0	98
Dissolved Vanadium	38.9		40.0	97	48.6		50.0	97	49.0		50.0	98
Zinc	40.2		40.0	101	50.1		50.0	100	50.0		50.0	100
Nickel	39.9		40.0	100	46.8		50.0	94	48.1		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSCRI6020AW_00066 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00066

Analyte	ICVL 240-327536/9 05/18/2018 10:31				CCVL 240-327536/161 05/18/2018 22:05				CCVL 240-327536/211 05/19/2018 01:52			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.93	J	2.00	96	1.96	J	2.00	98	1.98	J	2.00	99
Arsenic	4.65	J	5.00	93	4.71	J	5.00	94	4.47	J	5.00	89
Barium	4.47	J	5.00	89	4.49	J	5.00	90	4.39	J	5.00	88
Cadmium	0.952	J	1.00	95	0.940	J	1.00	94	0.897	J	1.00	90
Chromium	1.89	J	2.00	95	1.80	J	2.00	90	1.81	J	2.00	90
Cobalt	0.963	J	1.00	96	0.960	J	1.00	96	0.990	J	1.00	99
Copper	1.93	J	2.00	97	2.00		2.00	100	1.95	J	2.00	97
Dissolved Iron	106		100	106	103		100	103	105		100	105
Dissolved Lead	0.963	J	1.00	96	0.934	J	1.00	93	0.944	J	1.00	94
Dissolved Manganese	4.67	J	5.00	93	4.71	J	5.00	94	4.72	J	5.00	94
Dissolved Molybdenum	5.12		5.00	102	5.01		5.00	100	4.95	J	5.00	99
Dissolved Selenium	4.57	J	5.00	91	4.86	J	5.00	97	5.04		5.00	101
Dissolved Silver	1.02		1.00	102	1.02		1.00	102	0.991	J	1.00	99
Dissolved Thallium	0.980	J	1.00	98	0.870	J	1.00	87	0.961	J	1.00	96
Dissolved Vanadium	4.54	J	5.00	91	4.44	J	5.00	89	4.32	J	5.00	86
Zinc	18.7	J	20.0	93	18.5	J	20.0	93	17.9	J	20.0	89
Nickel	2.10		2.00	105					1.5	U	2.00	70

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328140/7 05/22/2018 11:13				CCV 240-328140/98 05/22/2018 18:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	42.2		40.0	106	50.9		50.0	102				
Dissolved Nickel	40.8		40.0	102	48.8		50.0	98				
Antimony	40.4		40.0	101	50.4		50.0	101				
Arsenic	42.3		40.0	106	47.9		50.0	96				
Barium	39.9		40.0	100	50.0		50.0	100				
Cadmium	40.6		40.0	101	51.0		50.0	102				
Chromium	40.8		40.0	102	49.0		50.0	98				
Cobalt	41.2		40.0	103	49.1		50.0	98				
Copper	42.4		40.0	106	50.2		50.0	100				
Iron	10100		10000	101	12400		12500	99				
Lead	42.1		40.0	105	48.3		50.0	97				
Manganese	200		200	100	240		250	96				
Molybdenum	41.3		40.0	103	50.8		50.0	102				
Selenium	41.3		40.0	103	47.9		50.0	96				
Silver	41.4		40.0	104	51.3		50.0	103				
Thallium	40.9		40.0	102	49.6		50.0	99				
Vanadium	40.5		40.0	101	48.5		50.0	97				
Zinc	41.1		40.0	103	49.0		50.0	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328140/7 05/22/2018 11:13				CCV 240-328140/76 05/22/2018 16:23				CCV 240-328140/86 05/22/2018 17:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	42.2		40.0	106	52.8		50.0	106	51.5		50.0	103
Dissolved Nickel	40.8		40.0	102	48.5		50.0	97	49.0		50.0	98
Antimony	40.4		40.0	101	50.4		50.0	101	50.7		50.0	101
Arsenic	42.3		40.0	106	48.4		50.0	97	49.9		50.0	100
Barium	39.9		40.0	100	49.8		50.0	100	49.6		50.0	99
Cadmium	40.6		40.0	101	50.5		50.0	101	51.0		50.0	102
Chromium	40.8		40.0	102	48.5		50.0	97	48.7		50.0	97
Cobalt	41.2		40.0	103	48.3		50.0	97	49.3		50.0	99
Copper	42.4		40.0	106	49.0		50.0	98	49.6		50.0	99
Iron	10100		10000	101	12100		12500	97	12500		12500	100
Lead	42.1		40.0	105	47.7		50.0	95	48.7		50.0	97
Manganese	200		200	100	237		250	95	241		250	96
Molybdenum	41.3		40.0	103	51.0		50.0	102	52.2		50.0	104
Selenium	41.3		40.0	103	47.5		50.0	95	48.9		50.0	98
Silver	41.4		40.0	104	50.7		50.0	101	51.3		50.0	103
Thallium	40.9		40.0	102	48.7		50.0	97	49.5		50.0	99
Vanadium	40.5		40.0	101	48.2		50.0	96	49.0		50.0	98
Zinc	41.1		40.0	103	47.9		50.0	96	48.6		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSCRI6020AW_00066 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00066

Analyte	ICVL 240-328140/9 05/22/2018 11:22				CCVL 240-328140/88 05/22/2018 17:17				CCVL 240-328140/105 05/22/2018 18:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	1.07		1.00	107	1.21		1.00	121	0.870	J	1.00	87
Dissolved Nickel	1.96	J	2.00	98	1.51	J	2.00	75	1.5	U	2.00	72
Antimony	2.14		2.00	107	2.12		2.00	106	2.00		2.00	100
Arsenic	4.97	J	5.00	99	4.51	J	5.00	90	4.70	J	5.00	94
Barium	4.56	J	5.00	91	4.76	J	5.00	95	4.69	J	5.00	94
Cadmium	0.954	J	1.00	95	1.04		1.00	104	0.941	J	1.00	94
Chromium	1.92	J	2.00	96	1.80	J	2.00	90	1.85	J	2.00	92
Cobalt	0.987	J	1.00	99	0.966	J	1.00	97	0.990	J	1.00	99
Copper	2.02		2.00	101	1.95	J	2.00	98	1.91	J	2.00	96
Iron	106		100	106	101		100	101	102		100	102
Lead	0.926	J	1.00	93	0.857	J	1.00	86	0.780	J	1.00	78
Manganese	4.47	J	5.00	89	4.26	J	5.00	85	4.32	J	5.00	86
Molybdenum	5.05		5.00	101	5.09		5.00	102	5.04		5.00	101
Selenium	5.27		5.00	105	4.86	J	5.00	97	5.18		5.00	104
Silver	0.989	J	1.00	99	1.05		1.00	105	1.01		1.00	101
Thallium	0.997	J	1.00	100	1.00		1.00	100	0.934	J	1.00	93
Vanadium	4.72	J	5.00	94	4.35	J	5.00	87	4.43	J	5.00	89
Zinc	17.8	J	20.0	89	17.1	J	20.0	86	17.6	J	20.0	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328236/7 05/23/2018 11:22				CCV 240-328236/36 05/23/2018 13:33							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.4		40.0	99	47.6		50.0	95				
Nickel	39.8		40.0	99	46.2		50.0	92				
Antimony	40.5		40.0	101	50.2		50.0	100				
Arsenic	41.2		40.0	103	52.3		50.0	105				
Barium	40.3		40.0	101	50.1		50.0	100				
Cadmium	41.4		40.0	103	51.0		50.0	102				
Chromium	40.8		40.0	102	51.2		50.0	102				
Cobalt	41.1		40.0	103	51.6		50.0	103				
Copper	42.4		40.0	106	52.8		50.0	106				
Iron	10200		10000	102	12800		12500	102				
Lead	42.0		40.0	105	48.1		50.0	96				
Manganese	199		200	99	245		250	98				
Molybdenum	40.1		40.0	100	48.3		50.0	97				
Selenium	41.7		40.0	104	51.1		50.0	102				
Silver	40.1		40.0	100	48.1		50.0	96				
Thallium	40.9		40.0	102	48.4		50.0	97				
Vanadium	40.5		40.0	101	50.6		50.0	101				
Zinc	38.5		40.0	96	49.6		50.0	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328236/7 05/23/2018 11:22				CCV 240-328236/44 05/23/2018 14:09							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.4		40.0	99	49.7		50.0	99				
Nickel	39.8		40.0	99	47.8		50.0	96				
Antimony	40.5		40.0	101	50.3		50.0	101				
Arsenic	41.2		40.0	103	51.8		50.0	104				
Barium	40.3		40.0	101	48.6		50.0	97				
Cadmium	41.4		40.0	103	51.0		50.0	102				
Chromium	40.8		40.0	102	51.4		50.0	103				
Cobalt	41.1		40.0	103	52.1		50.0	104				
Copper	42.4		40.0	106	52.3		50.0	105				
Iron	10200		10000	102	12900		12500	103				
Lead	42.0		40.0	105	49.4		50.0	99				
Manganese	199		200	99	247		250	99				
Molybdenum	40.1		40.0	100	50.0		50.0	100				
Selenium	41.7		40.0	104	51.3		50.0	103				
Silver	40.1		40.0	100	49.1		50.0	98				
Thallium	40.9		40.0	102	49.3		50.0	99				
Vanadium	40.5		40.0	101	50.3		50.0	101				
Zinc	38.5		40.0	96	48.3		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-328236/9 05/23/2018 11:31				CCVL 240-328236/46 05/23/2018 14:18							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.870	J	1.00	87	1.01		1.00	101				
Antimony	1.76	J	2.00	88	1.85	J	2.00	93				
Arsenic	4.97	J	5.00	99	5.07		5.00	101				
Barium	4.83	J	5.00	97	4.74	J	5.00	95				
Cadmium	1.01		1.00	101	0.997	J	1.00	100				
Chromium	1.95	J	2.00	97	1.97	J	2.00	98				
Cobalt	0.987	J	1.00	99	1.04		1.00	104				
Copper	1.87	J	2.00	94	1.91	J	2.00	95				
Iron	108		100	108	111		100	111				
Lead	1.00		1.00	100	0.980	J	1.00	98				
Manganese	4.16	J	5.00	83	4.48	J	5.00	90				
Molybdenum	4.83	J	5.00	97	4.84	J	5.00	97				
Selenium	5.07		5.00	101	5.13		5.00	103				
Silver	0.912	J	1.00	91	0.934	J	1.00	93				
Thallium	1.02		1.00	102	1.04		1.00	104				
Vanadium	4.84	J	5.00	97	4.83	J	5.00	97				
Zinc	15	U	20.0	74	16.3	J	20.0	81				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00338 Concentration Units: ug/L

CCV Source: MTHGCALW_01824

Analyte	ICV 240-326507/7-A 05/11/2018 12:51				CCV 240-326507/10-A 05/11/2018 14:46				CCV 240-326507/10-A 05/11/2018 15:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.94		5.00	99	5.12		5.00	102	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00338 Concentration Units: ug/L

CCV Source: MTHGCALW_01824

Analyte	CCV 240-326507/10-A 05/11/2018 15:34				CCV 240-326507/10-A 05/11/2018 15:48							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.19		5.00	104	5.14		5.00	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00339 Concentration Units: ug/L

CCV Source: MTHGCALW_01825

Analyte	ICV 240-326737/7-A 05/15/2018 09:34				CCV 240-326737/10-A 05/15/2018 10:48				CCV 240-326737/10-A 05/15/2018 11:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.87		5.00	97	4.96		5.00	99	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00339 Concentration Units: ug/L

CCV Source: MTHGCALW_01825

Analyte	CCV 240-326737/10-A 05/15/2018 12:21				CCV 240-326737/10-A 05/15/2018 12:40							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.02		5.00	100	5.05		5.00	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00341 Concentration Units: ug/L

CCV Source: MTHGCALW_01828

Analyte	ICV 240-327320/7-A 05/17/2018 12:09				CCV 240-327320/10-A 05/17/2018 13:30				CCV 240-327320/10-A 05/17/2018 14:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.97		5.00	99	5.00		5.00	100	5.24		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICV Source: MTHgICV_00001_00341 Concentration Units: ug/L

CCV Source: MTHGCALW_01828

Analyte	CCV 240-327320/10-A 05/17/2018 14:49				CCV 240-327320/10-A 05/17/2018 15:04							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.21		5.00	104	5.18		5.00	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-326507/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01824

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.203		101	50-150
Mercury	0.200	0.203		101	50-150

Lab Sample ID: CRA 240-326737/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01825

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.230		115	50-150
Mercury	0.200	0.230		115	50-150

Lab Sample ID: CRA 240-327320/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01828

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.226		113	50-150
Mercury	0.200	0.226		113	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-326944/8 05/15/2018 11:20		CCB 240-326944/187 05/16/2018 00:49		CCB 240-326944/199 05/16/2018 01:43		CCB 240-326944/211 05/16/2018 02:38	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-326944/220 05/16/2018 03:18		CCB 240-326944/232 05/16/2018 04:13		CCB 240-326944/244 05/16/2018 05:07		CCB 240-326944/253 05/16/2018 05:48	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-327282/8 05/16/2018 12:12		CCB 240-327282/41 05/16/2018 14:41		CCB 240-327282/53 05/16/2018 15:35		CCB 240-327282/65 05/16/2018 16:30	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-327282/67 05/16/2018 16:39		CCB 240-327282/79 05/16/2018 17:33		CCB 240-327282/91 05/16/2018 18:26		CCB 240-327282/103 05/16/2018 19:21	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-327282/110 05/16/2018 19:52							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Manganese	5.0	2.1	U						
Iron	100	47	U						
Lead	1.0	0.45	U						
Molybdenum	5.0	1.1	U						
Nickel	2.0	1.5	U						
Selenium	5.0	0.89	U						
Silver	1.0	0.053	U						
Thallium	1.0	0.20	U						
Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-327536/8 05/18/2018 10:26		CCB 240-327536/187 05/19/2018 00:03		CCB 240-327536/199 05/19/2018 00:57		CCB 240-327536/210 05/19/2018 01:47	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328140/8 05/22/2018 11:18		CCB 240-328140/77 05/22/2018 16:28		CCB 240-328140/87 05/22/2018 17:12		CCB 240-328140/99 05/22/2018 18:06	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.317	J	0.31	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328236/8 05/23/2018 11:26		CCB 240-328236/37 05/23/2018 13:38		CCB 240-328236/45 05/23/2018 14:14			
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-326507/8-A 05/11/2018 12:52		CCB 240-326507/11-A 05/11/2018 14:48		CCB 240-326507/11-A 05/11/2018 15:12		CCB 240-326507/11-A 05/11/2018 15:36	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-326507/11-A 05/11/2018 15:50							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-326737/8-A 05/15/2018 09:36		CCB 240-326737/11-A 05/15/2018 10:50		CCB 240-326737/11-A 05/15/2018 11:59		CCB 240-326737/11-A 05/15/2018 12:23	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-326737/11-A 05/15/2018 12:42							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-327320/8-A 05/17/2018 12:11		CCB 240-327320/11-A 05/17/2018 13:32		CCB 240-327320/11-A 05/17/2018 14:26		CCB 240-327320/11-A 05/17/2018 14:50	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-327320/11-A 05/17/2018 15:06							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326193/1-A

Instrument Code: I10 Batch No.: 326944

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326663/1-A

Instrument Code: I10 Batch No.: 326944

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326193/1-A

Instrument Code: I10 Batch No.: 327282

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326663/1-A

Instrument Code: I10 Batch No.: 327282

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-327060/1-A

Instrument Code: I10 Batch No.: 327536

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-327060/1-A

Instrument Code: I10 Batch No.: 328140

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326194/1-A

Instrument Code: H3 Batch No.: 326673

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-326669/1-A

Instrument Code: H3 Batch No.: 326901

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-327064/1-A

Instrument Code: H3 Batch No.: 327340

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-326944/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00084

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0460**	
Arsenic		**0.0720**	
Barium		**0.0020**	
Cadmium		**0.124**	
Chromium		**0.637**	
Cobalt		**0.0080**	
Copper		**0.0600**	
Dissolved Iron	**50000**	**50092**	**100**
Dissolved Lead		**-0.0620**	
Dissolved Manganese		**-0.0120**	
Dissolved Molybdenum	**1000**	**980**	**98**
Dissolved Nickel		**0.0550**	
Dissolved Selenium		**-0.0710**	
Dissolved Silver		**0.0190**	
Dissolved Thallium		**0.0100**	
Dissolved Vanadium		**-0.108**	
Zinc		**-0.321**	
Aluminum	*50000*	*50358*	*101*
Beryllium		*-0.0090*	
Boron		*-4.57*	
Calcium	*50000*	*49542*	*99*
Lithium		*-0.734*	
Magnesium	*50000*	*50460*	*101*
Potassium	*50000*	*50066*	*100*
Sodium	*50000*	*49722*	*99*
Strontium		*0.450*	
Tin		*0.129*	
Titanium	*1000*	*1001*	*100*
Tungsten		*0.298*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-326944/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**99.3**	**99**
Arsenic	**100**	**98.8**	**99**
Barium	**100**	**99.2**	**99**
Cadmium	**100**	**97.9**	**98**
Chromium	**100**	**95.6**	**96**
Cobalt	**100**	**96.9**	**97**
Copper	**100**	**96.3**	**96**
Dissolved Iron	**50000**	**48076**	**96**
Dissolved Lead	**100**	**98.7**	**99**
Dissolved Manganese	**100**	**97.1**	**97**
Dissolved Molybdenum	**1100**	**1052**	**96**
Dissolved Nickel	**100**	**97.4**	**97**
Dissolved Selenium	**100**	**100**	**100**
Dissolved Silver	**100**	**99.3**	**99**
Dissolved Thallium	**100**	**95.9**	**96**
Dissolved Vanadium	**100**	**95.9**	**96**
Zinc	**100**	**97.5**	**97**
Aluminum	*50000*	*48726*	*97*
Beryllium	*100*	*97.7*	*98*
Boron	*100*	*96.2*	*96*
Calcium	*50000*	*48404*	*97*
Lithium	*100*	*98.6*	*99*
Magnesium	*50000*	*48703*	*97*
Potassium	*50000*	*48236*	*96*
Sodium	*50000*	*48548*	*97*
Strontium	*100*	*98.3*	*98*
Tin	*100*	*97.8*	*98*
Titanium	*1100*	*1062*	*97*
Tungsten	*100*	*97.3*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-326944/152 Instrument ID: I10

Lab File ID: 152ICSA.d ICS Source: MTMSICSAW_00084

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0520**	
Arsenic		**-0.132**	
Barium		**0.0450**	
Cadmium		**0.171**	
Chromium		**0.663**	
Cobalt		**0.0300**	
Copper		**0.122**	
Dissolved Iron	**50000**	**49037**	**98**
Dissolved Lead		**-0.106**	
Dissolved Manganese		**0.141**	
Dissolved Molybdenum	**1000**	**994**	**99**
Dissolved Nickel		**0.0630**	
Dissolved Selenium		**0.0940**	
Dissolved Silver		**0.0180**	
Dissolved Thallium		**0.0030**	
Dissolved Vanadium		**0.0280**	
Zinc		**-0.157**	
Aluminum	*50000*	*50260*	*101*
Beryllium		*0.100*	
Calcium	*50000*	*49008*	*98*
Lithium		*-1.47*	
Magnesium	*50000*	*50634*	*101*
Potassium	*50000*	*50017*	*100*
Sodium	*50000*	*50562*	*101*
Strontium		*0.575*	
Tin		*-0.0540*	
Titanium	*1000*	*987*	*99*
Tungsten		*0.200*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-326944/153 Instrument ID: I10

Lab File ID: 153ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.1**	**99**
Arsenic	**100**	**96.4**	**96**
Barium	**100**	**99.1**	**99**
Cadmium	**100**	**96.1**	**96**
Chromium	**100**	**95.5**	**95**
Cobalt	**100**	**95.2**	**95**
Copper	**100**	**94.2**	**94**
Dissolved Iron	**50000**	**48557**	**97**
Dissolved Lead	**100**	**97.6**	**98**
Dissolved Manganese	**100**	**96.8**	**97**
Dissolved Molybdenum	**1100**	**1082**	**98**
Dissolved Nickel	**100**	**99.9**	**100**
Dissolved Selenium	**100**	**97.8**	**98**
Dissolved Silver	**100**	**98.4**	**98**
Dissolved Thallium	**100**	**93.7**	**94**
Dissolved Vanadium	**100**	**94.7**	**95**
Zinc	**100**	**95.4**	**95**
Aluminum	*50000*	*49305*	*99*
Beryllium	*100*	*89.8*	*90*
Calcium	*50000*	*48383*	*97*
Lithium	*100*	*95.0*	*95*
Magnesium	*50000*	*49586*	*99*
Potassium	*50000*	*49278*	*99*
Sodium	*50000*	*49491*	*99*
Strontium	*100*	*101*	*101*
Tin	*100*	*96.4*	*96*
Titanium	*1100*	*1057*	*96*
Tungsten	*100*	*95.1*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-327282/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00084

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0520**	
Arsenic		**-0.329**	
Barium		**0.0590**	
Beryllium		**0.0200**	
Cadmium		**0.344**	
Chromium		**0.674**	
Cobalt		**0.0160**	
Copper		**0.100**	
Dissolved Manganese		**0.115**	
Iron	**50000**	**49872**	**100**
Lead		**0.0410**	
Molybdenum	**1000**	**985**	**99**
Nickel		**0.0900**	
Selenium		**-0.136**	
Silver		**0.0070**	
Thallium		**0.0070**	
Vanadium		**0.0910**	
Zinc		**1.02**	
Aluminum	*50000*	*51701*	*103*
Boron		*2.08*	
Calcium	*50000*	*49490*	*99*
Lithium		*0.102*	
Magnesium	*50000*	*49850*	*100*
Potassium	*50000*	*49061*	*98*
Sodium	*50000*	*50335*	*101*
Strontium		*0.510*	
Tin		*0.479*	
Titanium	*1000*	*1003*	*100*
Tungsten		*0.284*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-327282/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.1**	**97**
Arsenic	**100**	**99.6**	**100**
Barium	**100**	**98.3**	**98**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**96.1**	**96**
Chromium	**100**	**95.6**	**96**
Cobalt	**100**	**97.5**	**97**
Copper	**100**	**97.4**	**97**
Dissolved Manganese	**100**	**93.5**	**94**
Iron	**50000**	**48854**	**98**
Lead	**100**	**98.5**	**98**
Molybdenum	**1100**	**1067**	**97**
Nickel	**100**	**99.2**	**99**
Selenium	**100**	**100**	**100**
Silver	**100**	**97.6**	**98**
Thallium	**100**	**96.1**	**96**
Vanadium	**100**	**94.0**	**94**
Zinc	**100**	**97.0**	**97**
Aluminum	*50000*	*50044*	*100*
Boron	*100*	*102*	*102*
Calcium	*50000*	*47817*	*96*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*48136*	*96*
Potassium	*50000*	*48259*	*97*
Sodium	*50000*	*48027*	*96*
Strontium	*100*	*99.5*	*99*
Tin	*100*	*97.1*	*97*
Titanium	*1100*	*1075*	*98*
Tungsten	*100*	*96.6*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-327536/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0110**	
Arsenic		**0.0340**	
Barium		**0.0070**	
Cadmium		**0.193**	
Chromium		**0.102**	
Cobalt		**0.0010**	
Copper		**0.361**	
Dissolved Iron	**50000**	**47976**	**96**
Dissolved Lead		**0.0030**	
Dissolved Manganese		**-0.0450**	
Dissolved Molybdenum	**1000**	**981**	**98**
Dissolved Selenium		**-0.136**	
Dissolved Silver		**0.0090**	
Dissolved Thallium		**-0.0090**	
Dissolved Vanadium		**0.0020**	
Zinc		**-1.22**	
Aluminum	*50000*	*48043*	*96*
Beryllium		*-0.0220*	
Boron		*-2.49*	
Calcium	*50000*	*48273*	*97*
Lithium		*-0.523*	
Magnesium	*50000*	*48630*	*97*
Nickel		*0.225*	
Potassium	*50000*	*47955*	*96*
Sodium	*50000*	*47809*	*96*
Strontium		*0.467*	
Tin		*-0.166*	
Titanium	*1000*	*961*	*96*
Tungsten		*0.176*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-327536/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**99.6**	**100**
Barium	**100**	**98.9**	**99**
Cadmium	**100**	**98.3**	**98**
Chromium	**100**	**96.3**	**96**
Cobalt	**100**	**98.1**	**98**
Copper	**100**	**99.3**	**99**
Dissolved Iron	**50000**	**48805**	**98**
Dissolved Lead	**100**	**99.1**	**99**
Dissolved Manganese	**100**	**98.4**	**98**
Dissolved Molybdenum	**1100**	**1112**	**101**
Dissolved Selenium	**100**	**99.1**	**99**
Dissolved Silver	**100**	**98.6**	**99**
Dissolved Thallium	**100**	**97.1**	**97**
Dissolved Vanadium	**100**	**96.5**	**96**
Zinc	**100**	**99.9**	**100**
Aluminum	*50000*	*48395*	*97*
Beryllium	*100*	*106*	*106*
Boron	*100*	*109*	*109*
Calcium	*50000*	*49181*	*98*
Lithium	*100*	*110*	*110*
Magnesium	*50000*	*48659*	*97*
Nickel	*100*	*99.4*	*99*
Potassium	*50000*	*48676*	*97*
Sodium	*50000*	*48589*	*97*
Strontium	*100*	*99.8*	*100*
Tin	*100*	*99.7*	*100*
Titanium	*1100*	*1080*	*98*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-327536/144 Instrument ID: I10

Lab File ID: 144ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0250**	
Arsenic		**0.0860**	
Barium		**0.0120**	
Cadmium		**0.231**	
Chromium		**0.0850**	
Cobalt		**0.0100**	
Copper		**0.409**	
Dissolved Iron	**50000**	**48768**	**98**
Dissolved Lead		**0.0980**	
Dissolved Manganese		**0.0600**	
Dissolved Molybdenum	**1000**	**1019**	**102**
Dissolved Selenium		**0.160**	
Dissolved Silver		**0.0130**	
Dissolved Thallium		**-0.0170**	
Dissolved Vanadium		**0.0700**	
Zinc		**-1.08**	
Aluminum	*50000*	*46974*	*94*
Beryllium		*0.0480*	
Calcium	*50000*	*48670*	*97*
Lithium		*-2.25*	
Magnesium	*50000*	*47965*	*96*
Nickel		*-0.466*	
Potassium	*50000*	*48341*	*97*
Sodium	*50000*	*47890*	*96*
Strontium		*0.482*	
Tin		*-0.204*	
Titanium	*1000*	*964*	*96*
Tungsten		*0.0840*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-327536/145 Instrument ID: I10

Lab File ID: 145ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**102**	**102**
Barium	**100**	**99.1**	**99**
Cadmium	**100**	**97.9**	**98**
Chromium	**100**	**95.7**	**96**
Cobalt	**100**	**98.1**	**98**
Copper	**100**	**98.1**	**98**
Dissolved Iron	**50000**	**49732**	**99**
Dissolved Lead	**100**	**90.4**	**90**
Dissolved Manganese	**100**	**98.2**	**98**
Dissolved Molybdenum	**1100**	**1114**	**101**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**97.2**	**97**
Dissolved Thallium	**100**	**87.6**	**88**
Dissolved Vanadium	**100**	**95.8**	**96**
Zinc	**100**	**98.9**	**99**
Aluminum	*50000*	*47225*	*94*
Beryllium	*100*	*102*	*102*
Calcium	*50000*	*50136*	*100*
Lithium	*100*	*106*	*106*
Magnesium	*50000*	*48722*	*97*
Nickel	*100*	*96.1*	*96*
Potassium	*50000*	*48589*	*97*
Sodium	*50000*	*48414*	*97*
Strontium	*100*	*99.3*	*99*
Tin	*100*	*98.6*	*99*
Titanium	*1100*	*1066*	*97*
Tungsten	*100*	*91.6*	*92*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-328140/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0610**	
Dissolved Nickel		**0.0060**	
Aluminum	*50000*	*49869*	*100*
Antimony		*0.0410*	
Arsenic		*0.0620*	
Barium		*0.0230*	
Boron		*-16.7*	
Cadmium		*0.323*	
Calcium	*50000*	*50650*	*101*
Chromium		*0.0780*	
Cobalt		*-0.0030*	
Copper		*0.379*	
Iron	*50000*	*49052*	*98*
Lead		*-0.0490*	
Lithium		*-0.849*	
Magnesium	*50000*	*49712*	*99*
Manganese		*-0.265*	
Molybdenum	*1000*	*1026*	*103*
Potassium	*50000*	*49045*	*98*
Selenium		*0.284*	
Silver		*0.0100*	
Sodium	*50000*	*49615*	*99*
Strontium		*0.432*	
Thallium		*0.0000*	
Tin		*-0.192*	
Titanium	*1000*	*992*	*99*
Tungsten		*0.190*	
Vanadium		*-0.143*	
Zinc		*-2.31*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-328140/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**115**	**115**
Dissolved Nickel	**100**	**98.9**	**99**
Aluminum	*50000*	*49923*	*100*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*101*	*101*
Barium	*100*	*101*	*101*
Boron	*100*	*90.4*	*90*
Cadmium	*100*	*99.6*	*100*
Calcium	*50000*	*49182*	*98*
Chromium	*100*	*97.3*	*97*
Cobalt	*100*	*98.0*	*98*
Copper	*100*	*98.4*	*98*
Iron	*50000*	*49062*	*98*
Lead	*100*	*97.7*	*98*
Lithium	*100*	*108*	*108*
Magnesium	*50000*	*49953*	*100*
Manganese	*100*	*97.3*	*97*
Molybdenum	*1100*	*1116*	*101*
Potassium	*50000*	*49359*	*99*
Selenium	*100*	*98.4*	*98*
Silver	*100*	*99.6*	*100*
Sodium	*50000*	*49479*	*99*
Strontium	*100*	*99.9*	*100*
Thallium	*100*	*96.6*	*97*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1101*	*100*
Tungsten	*100*	*98.0*	*98*
Vanadium	*100*	*97.7*	*98*
Zinc	*100*	*100*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSA 240-328236/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0150**	
Nickel		**-0.570**	
Aluminum	*50000*	*49258*	*99*
Antimony		*0.0370*	
Arsenic		*-0.169*	
Barium		*0.0190*	
Boron		*-0.477*	
Cadmium		*0.354*	
Calcium	*50000*	*49107*	*98*
Chromium		*0.0720*	
Cobalt		*-0.0120*	
Copper		*0.228*	
Iron	*50000*	*48987*	*98*
Lead		*0.0110*	
Lithium		*-0.124*	
Magnesium	*50000*	*47817*	*96*
Manganese		*-0.488*	
Molybdenum	*1000*	*991*	*99*
Potassium	*50000*	*48740*	*97*
Selenium		*0.403*	
Silver		*0.0090*	
Sodium	*50000*	*47911*	*96*
Strontium		*0.426*	
Thallium		*0.0010*	
Tin		*-0.195*	
Titanium	*1000*	*984*	*98*
Tungsten		*0.152*	
Vanadium		*-0.0340*	
Zinc		*-5.51*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Lab Sample ID: ICSAB 240-328236/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**104**	**104**
Nickel	**100**	**99.5**	**100**
Aluminum	*50000*	*49297*	*99*
Antimony	*100*	*100*	*100*
Arsenic	*100*	*99.9*	*100*
Barium	*100*	*101*	*101*
Boron	*100*	*101*	*101*
Cadmium	*100*	*99.6*	*100*
Calcium	*50000*	*49991*	*100*
Chromium	*100*	*97.1*	*97*
Cobalt	*100*	*98.9*	*99*
Copper	*100*	*99.1*	*99*
Iron	*50000*	*49069*	*98*
Lead	*100*	*97.1*	*97*
Lithium	*100*	*101*	*101*
Magnesium	*50000*	*48612*	*97*
Manganese	*100*	*96.3*	*96*
Molybdenum	*1100*	*1103*	*100*
Potassium	*50000*	*48529*	*97*
Selenium	*100*	*98.7*	*99*
Silver	*100*	*98.8*	*99*
Sodium	*50000*	*48729*	*97*
Strontium	*100*	*99.9*	*100*
Thallium	*100*	*96.2*	*96*
Tin	*100*	*98.7*	*99*
Titanium	*1100*	*1098*	*100*
Tungsten	*100*	*97.2*	*97*
Vanadium	*100*	*97.5*	*98*
Zinc	*100*	*100*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-326663/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.0		95	80	120		6020A
Dissolved Antimony	100	95.0		95	80	120		6020A
Arsenic	1000	956		96	80	120		6020A
Dissolved Arsenic	1000	956		96	80	120		6020A
Barium	1000	967		97	80	120		6020A
Dissolved Barium	1000	967		97	80	120		6020A
Cadmium	1000	993		99	80	120		6020A
Dissolved Cadmium	1000	993		99	80	120		6020A
Cobalt	1000	1000		100	80	120		6020A
Dissolved Cobalt	1000	1000		100	80	120		6020A
Chromium	1000	995		99	80	120		6020A
Dissolved Chromium	1000	995		99	80	120		6020A
Copper	1000	994		99	80	120		6020A
Dissolved Copper	1000	994		99	80	120		6020A
Dissolved Iron	10000	9820		98	80	120		6020A
Iron	10000	9820		98	80	120		6020A
Dissolved Manganese	1000	996		100	80	120		6020A
Manganese	1000	996		100	80	120		6020A
Dissolved Molybdenum	100	101		101	80	120		6020A
Molybdenum	100	101		101	80	120		6020A
Dissolved Nickel	1000	990		99	80	120		6020A
Nickel	1000	990		99	80	120		6020A
Dissolved Lead	1000	1030		103	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Dissolved Selenium	1000	969		97	80	120		6020A
Selenium	1000	969		97	80	120		6020A
Dissolved Thallium	250	243		97	80	120		6020A
Thallium	250	243		97	80	120		6020A
Dissolved Vanadium	1000	1010		101	80	120		6020A
Dissolved Zinc	1000	971		97	80	120		6020A
Vanadium	1000	1010		101	80	120		6020A
Zinc	1000	971		97	80	120		6020A
Dissolved Silver	100	98.4		98	80	120		6020A
Silver	100	98.4		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-326193/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	94.6		95	80	120		6020A
Dissolved Antimony	100	94.6		95	80	120		6020A
Arsenic	1000	961		96	80	120		6020A
Dissolved Arsenic	1000	961		96	80	120		6020A
Barium	1000	958		96	80	120		6020A
Dissolved Barium	1000	958		96	80	120		6020A
Cadmium	1000	978		98	80	120		6020A
Dissolved Cadmium	1000	978		98	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Chromium	1000	1020		102	80	120		6020A
Dissolved Chromium	1000	1020		102	80	120		6020A
Copper	1000	990		99	80	120		6020A
Dissolved Copper	1000	990		99	80	120		6020A
Dissolved Iron	10000	10100		101	80	120		6020A
Iron	10000	10100		101	80	120		6020A
Dissolved Manganese	1000	977		98	80	120		6020A
Manganese	1000	977		98	80	120		6020A
Dissolved Molybdenum	100	101		101	80	120		6020A
Molybdenum	100	101		101	80	120		6020A
Dissolved Nickel	1000	991		99	80	120		6020A
Nickel	1000	991		99	80	120		6020A
Dissolved Lead	1000	1020		102	80	120		6020A
Lead	1000	1020		102	80	120		6020A
Dissolved Selenium	1000	974		97	80	120		6020A
Selenium	1000	974		97	80	120		6020A
Dissolved Thallium	250	240		96	80	120		6020A
Thallium	250	240		96	80	120		6020A
Dissolved Vanadium	1000	1030		103	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	987		99	80	120		6020A
Dissolved Silver	100	100		100	80	120		6020A
Silver	100	100		100	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-326663/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	96.4		96	80	120		6020A
Dissolved Antimony	100	96.4		96	80	120		6020A
Arsenic	1000	1010		101	80	120		6020A
Dissolved Arsenic	1000	1010		101	80	120		6020A
Barium	1000	986		99	80	120		6020A
Dissolved Barium	1000	986		99	80	120		6020A
Beryllium	1000	1020		102	80	120		6020A
Dissolved Beryllium	1000	1020		102	80	120		6020A
Cadmium	1000	1010		101	80	120		6020A
Dissolved Cadmium	1000	1010		101	80	120		6020A
Cobalt	1000	1100		110	80	120		6020A
Dissolved Cobalt	1000	1100		110	80	120		6020A
Chromium	1000	1050		105	80	120		6020A
Dissolved Chromium	1000	1050		105	80	120		6020A
Copper	1000	1110		111	80	120		6020A
Dissolved Copper	1000	1110		111	80	120		6020A
Dissolved Iron	10000	10200		102	80	120		6020A
Iron	10000	10200		102	80	120		6020A
Dissolved Manganese	1000	1020		102	80	120		6020A
Manganese	1000	1020		102	80	120		6020A
Dissolved Molybdenum	100	99.5		100	80	120		6020A
Molybdenum	100	99.5		100	80	120		6020A
Dissolved Nickel	1000	953		95	80	120		6020A
Nickel	1000	953		95	80	120		6020A
Dissolved Lead	1000	1080		108	80	120		6020A
Lead	1000	1080		108	80	120		6020A
Dissolved Selenium	1000	1030		103	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Dissolved Thallium	250	250		100	80	120		6020A
Thallium	250	250		100	80	120		6020A
Dissolved Vanadium	1000	1020		102	80	120		6020A
Dissolved Zinc	1000	1020		102	80	120		6020A
Vanadium	1000	1020		102	80	120		6020A
Zinc	1000	1020		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-326663/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	99.9		100	80	120		6020A
Silver	100	99.9		100	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-326193/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSA_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	1030		103	80	120		6020A
Dissolved Beryllium	1000	1030		103	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-327060/3-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	100		100	80	120		6020A
Dissolved Antimony	100	100		100	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Dissolved Arsenic	1000	1040		104	80	120		6020A
Barium	1000	964		96	80	120		6020A
Dissolved Barium	1000	964		96	80	120		6020A
Cadmium	1000	1030		103	80	120		6020A
Dissolved Cadmium	1000	1030		103	80	120		6020A
Cobalt	1000	1080		108	80	120		6020A
Dissolved Cobalt	1000	1080		108	80	120		6020A
Chromium	1000	1040		104	80	120		6020A
Dissolved Chromium	1000	1040		104	80	120		6020A
Copper	1000	1100		110	80	120		6020A
Dissolved Copper	1000	1100		110	80	120		6020A
Dissolved Iron	10000	10400		104	80	120		6020A
Iron	10000	10400		104	80	120		6020A
Dissolved Manganese	1000	1040		104	80	120		6020A
Manganese	1000	1040		104	80	120		6020A
Dissolved Molybdenum	100	102		102	80	120		6020A
Molybdenum	100	102		102	80	120		6020A
Dissolved Lead	1000	1090		109	80	120		6020A
Lead	1000	1090		109	80	120		6020A
Dissolved Selenium	1000	1050		105	80	120		6020A
Selenium	1000	1050		105	80	120		6020A
Dissolved Thallium	250	253		101	80	120		6020A
Thallium	250	253		101	80	120		6020A
Dissolved Vanadium	1000	1030		103	80	120		6020A
Dissolved Zinc	1000	1050		105	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	1050		105	80	120		6020A
Dissolved Silver	100	101		101	80	120		6020A
Silver	100	101		101	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-327060/3-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTICPMSA_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	1050		105	80	120		6020A
Dissolved Beryllium	1000	1050		105	80	120		6020A
Dissolved Nickel	1000	990		99	80	120		6020A
Nickel	1000	990		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-326194/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTHGCALW_01823

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.10		102	80	120		7470A
Mercury, Dissolved	5.00	5.10		102	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-326669/2-A

Lab Name: TestAmerica Canton Job No.: 240-95314-1

Sample Matrix: Water LCS Source: MTHGCALW_01825

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.79		96	80	120		7470A
Mercury, Dissolved	5.00	4.79		96	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-327064/2-A

Lab Name: TestAmerica Canton | Job No.: 240-95314-1

Sample Matrix: Water | LCS Source: MTHGCALW_01827

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.84		97	80	120		7470A
Mercury, Dissolved	5.00	4.84		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95314-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-95314-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-326193/1-A	05/10/2018 14:00	326193		50	50
LCS 240-326193/2-A	05/10/2018 14:00	326193		50	50
240-95314-2	05/10/2018 14:00	326193		50	50
240-95314-2	05/10/2018 14:00	326193		50	50
240-95314-3	05/10/2018 14:00	326193		50	50
240-95314-3	05/10/2018 14:00	326193		50	50
240-95314-4	05/10/2018 14:00	326193		50	50
240-95314-4	05/10/2018 14:00	326193		50	50
240-95314-5	05/10/2018 14:00	326193		50	50
240-95314-5	05/10/2018 14:00	326193		50	50
240-95314-6	05/10/2018 14:00	326193		50	50
240-95314-6	05/10/2018 14:00	326193		50	50
240-95314-7	05/10/2018 14:00	326193		50	50
240-95314-7	05/10/2018 14:00	326193		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-326663/1-A	05/14/2018 14:00	326663		50	50
LCS 240-326663/2-A	05/14/2018 14:00	326663		50	50
240-95494-2	05/14/2018 14:00	326663		50	50
240-95494-2	05/14/2018 14:00	326663		50	50
240-95494-3	05/14/2018 14:00	326663		50	50
240-95494-3	05/14/2018 14:00	326663		50	50
240-95494-4	05/14/2018 14:00	326663		50	50
240-95494-4	05/14/2018 14:00	326663		50	50
240-95494-5	05/14/2018 14:00	326663		50	50
240-95494-5	05/14/2018 14:00	326663		50	50
240-95494-6	05/14/2018 14:00	326663		50	50
240-95494-6	05/14/2018 14:00	326663		50	50
240-95494-7	05/14/2018 14:00	326663		50	50
240-95494-7	05/14/2018 14:00	326663		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-327060/1-A	05/16/2018 14:00	327060		50	50
LCS 240-327060/3-A	05/16/2018 14:00	327060		50	50
240-95580-2	05/16/2018 14:00	327060		50	50
240-95580-2	05/16/2018 14:00	327060		50	50
240-95580-3	05/16/2018 14:00	327060		50	50
240-95580-3	05/16/2018 14:00	327060		50	50
240-95580-4	05/16/2018 14:00	327060		50	50
240-95580-4	05/16/2018 14:00	327060		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-326194/1-A	05/10/2018 14:00	326194		50	50
LCS 240-326194/2-A	05/10/2018 14:00	326194		50	50
240-95314-2	05/10/2018 14:00	326194		50	50
240-95314-2	05/10/2018 14:00	326194		50	50
240-95314-3	05/10/2018 14:00	326194		50	50
240-95314-3	05/10/2018 14:00	326194		50	50
240-95314-4	05/10/2018 14:00	326194		50	50
240-95314-4	05/10/2018 14:00	326194		50	50
240-95314-5	05/10/2018 14:00	326194		50	50
240-95314-5	05/10/2018 14:00	326194		50	50
240-95314-6	05/10/2018 14:00	326194		50	50
240-95314-6	05/10/2018 14:00	326194		50	50
240-95314-7	05/10/2018 14:00	326194		50	50
240-95314-7	05/10/2018 14:00	326194		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-326669/1-A	05/14/2018 12:00	326669		50	50
LCS 240-326669/2-A	05/14/2018 12:00	326669		50	50
240-95494-2	05/14/2018 12:00	326669		50	50
240-95494-2	05/14/2018 12:00	326669		50	50
240-95494-3	05/14/2018 12:00	326669		50	50
240-95494-3	05/14/2018 12:00	326669		50	50
240-95494-4	05/14/2018 12:00	326669		50	50
240-95494-4	05/14/2018 12:00	326669		50	50
240-95494-5	05/14/2018 12:00	326669		50	50
240-95494-5	05/14/2018 12:00	326669		50	50
240-95494-6	05/14/2018 12:00	326669		50	50
240-95494-6	05/14/2018 12:00	326669		50	50
240-95494-7	05/14/2018 12:00	326669		50	50
240-95494-7	05/14/2018 12:00	326669		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-327064/1-A	05/16/2018 14:00	327064		50	50
LCS 240-327064/2-A	05/16/2018 14:00	327064		50	50
240-95580-2	05/16/2018 14:00	327064		50	50
240-95580-2	05/16/2018 14:00	327064		50	50
240-95580-3	05/16/2018 14:00	327064		50	50
240-95580-3	05/16/2018 14:00	327064		50	50
240-95580-4	05/16/2018 14:00	327064		50	50
240-95580-4	05/16/2018 14:00	327064		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:48																									
ICIS 240-326944/2			10:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-326944/3 IC	1		10:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-326944/4 IC	1		11:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-326944/5 IC	1		11:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-326944/6 IC	1		11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-326944/7	1		11:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-326944/8	1		11:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-326944/9	1		11:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-326944/10	1		11:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-326944/11	1		11:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-326944/12			11:38																									
CCB 240-326944/13			11:42																									
ZZZZZZ			11:47																									
ZZZZZZ			11:52																									
ZZZZZZ			11:56																									
ZZZZZZ			12:01																									
ZZZZZZ			12:05																									
ZZZZZZ			12:10																									
ZZZZZZ			12:14																									
ZZZZZZ			12:19																									
ZZZZZZ			12:23																									
ZZZZZZ			12:28																									
CCV 240-326944/24			12:32																									
CCB 240-326944/25			12:37																									
ZZZZZZ			12:41																									
ZZZZZZ			12:46																									
ZZZZZZ			12:50																									
ZZZZZZ			12:55																									
ZZZZZZ			13:00																									
CCV 240-326944/31			13:04																									
CCB 240-326944/32			13:09																									
CCVL 240-326944/33			13:13																									
ZZZZZZ			13:18																									
ZZZZZZ			13:22																									
ZZZZZZ			13:27																									
ZZZZZZ			13:31																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:45																									
ZZZZZZ			13:49																									
ZZZZZZ			13:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-326944/43			13:58																									
CCB 240-326944/44			14:03																									
ZZZZZZ			14:07																									
ZZZZZZ			14:12																									
ZZZZZZ			14:16																									
ZZZZZZ			14:21																									
ZZZZZZ			14:25																									
ZZZZZZ			14:30																									
ZZZZZZ			14:34																									
ZZZZZZ			14:39																									
ZZZZZZ			14:43																									
ZZZZZZ			14:48																									
CCV 240-326944/55			14:53																									
CCB 240-326944/56			14:57																									
ZZZZZZ			15:02																									
ZZZZZZ			15:06																									
ZZZZZZ			15:11																									
ZZZZZZ			15:15																									
ZZZZZZ			15:20																									
CCV 240-326944/62			15:24																									
CCB 240-326944/63			15:29																									
CCVL 240-326944/64			15:33																									
ZZZZZZ			15:38																									
ZZZZZZ			15:43																									
ZZZZZZ			15:47																									
ZZZZZZ			15:52																									
CCV 240-326944/69			15:56																									
CCB 240-326944/70			16:01																									
ZZZZZZ			16:05																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									
ZZZZZZ			16:19																									
CCV 240-326944/75			16:23																									
CCB 240-326944/76			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:37																									
ZZZZZZ			16:41																									
ZZZZZZ			16:46																									
ZZZZZZ			16:50																									
ZZZZZZ			16:55																									
ZZZZZZ			16:59																									
ZZZZZZ			17:04																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:08																									
ZZZZZZ			17:13																									
CCV 240-326944/87			17:17																									
CCB 240-326944/88			17:22																									
ZZZZZZ			17:26																									
ZZZZZZ			17:31																									
ZZZZZZ			17:35																									
CCV 240-326944/92			17:40																									
CCB 240-326944/93			17:44																									
ZZZZZZ			17:49																									
ZZZZZZ			17:53																									
ZZZZZZ			17:58																									
CCV 240-326944/97			18:02																									
CCB 240-326944/98			18:07																									
ZZZZZZ			18:11																									
ZZZZZZ			18:16																									
ZZZZZZ			18:20																									
ZZZZZZ			18:25																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:38																									
ZZZZZZ			18:43																									
ZZZZZZ			18:47																									
ZZZZZZ			18:52																									
CCV 240-326944/109			18:56																									
CCB 240-326944/110			19:01																									
ZZZZZZ			19:06																									
ZZZZZZ			19:10																									
ZZZZZZ			19:15																									
ZZZZZZ			19:19																									
ZZZZZZ			19:24																									
ZZZZZZ			19:28																									
ZZZZZZ			19:33																									
ZZZZZZ			19:37																									
ZZZZZZ			19:42																									
ZZZZZZ			19:46																									
CCV 240-326944/121			19:51																									
CCB 240-326944/122			19:55																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:09																									
CCV 240-326944/126			20:13																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-326944/127			20:18																									
CCVL 240-326944/128			20:22																									
ZZZZZZ			20:27																									
ZZZZZZ			20:31																									
ZZZZZZ			20:36																									
ZZZZZZ			20:40																									
ZZZZZZ			20:45																									
ZZZZZZ			20:49																									
ZZZZZZ			20:54																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
CCV 240-326944/138			21:07																									
CCB 240-326944/139			21:12																									
ZZZZZZ			21:16																									
ZZZZZZ			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:30																									
ZZZZZZ			21:35																									
ZZZZZZ			21:39																									
ZZZZZZ			21:44																									
ZZZZZZ			21:48																									
ZZZZZZ			21:53																									
ZZZZZZ			21:57																									
CCV 240-326944/150			22:02																									
CCB 240-326944/151			22:06																									
ICSA 240-326944/152	1		22:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-326944/153	1		22:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			22:20																									
CCV 240-326944/155			22:24																									
CCB 240-326944/156			22:29																									
ZZZZZZ			22:34																									
ZZZZZZ			22:38																									
ZZZZZZ			22:43																									
ZZZZZZ			22:47																									
ZZZZZZ			22:52																									
ZZZZZZ			22:56																									
ZZZZZZ			23:00																									
ZZZZZZ			23:05																									
ZZZZZZ			23:09																									
ZZZZZZ			23:14																									
CCV 240-326944/167			23:18																									
CCB 240-326944/168			23:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			23:28																								
ZZZZZZ			23:32																								
ZZZZZZ			23:37																								
ZZZZZZ			23:41																								
ZZZZZZ			23:46																								
ZZZZZZ			23:50																								
ZZZZZZ			23:55																								
ZZZZZZ			23:59																								
ZZZZZZ			00:04																								
ZZZZZZ			00:08																								
CCV 240-326944/179			00:13																								
CCB 240-326944/180			00:17																								
ZZZZZZ			00:22																								
ZZZZZZ			00:26																								
ZZZZZZ			00:31																								
ZZZZZZ			00:35																								
ZZZZZZ			00:40																								
CCV 240-326944/186	1		00:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-326944/187	1		00:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-326944/188			00:54																								
MB 240-326663/1-A	1	R	00:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-326663/2-A	1	R	01:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			01:07																								
ZZZZZZ			01:12																								
ZZZZZZ			01:16																								
ZZZZZZ			01:21																								
ZZZZZZ			01:25																								
ZZZZZZ			01:30																								
ZZZZZZ			01:34																								
CCV 240-326944/198	1		01:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-326944/199	1		01:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-2	1	R	01:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-2	1	D	01:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-3	1	R	01:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-3	1	D	02:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-4	1	R	02:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-4	1	D	02:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-5	1	R	02:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-5	1	D	02:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-6	1	R	02:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-6	1	D	02:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-326944/210	1		02:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-326944/211	1		02:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95494-7	1	R	02:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95494-7	1	D	02:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			02:51																								
ZZZZZZ			02:56																								
ZZZZZZ			03:00																								
ZZZZZZ			03:05																								
ZZZZZZ			03:09																								
CCV 240-326944/219	1		03:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-326944/220	1		03:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-326944/221	1		03:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-326193/1-A	1	R	03:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-326193/2-A	1	R	03:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			03:37																								
ZZZZZZ			03:41																								
ZZZZZZ			03:46																								
ZZZZZZ			03:50																								
ZZZZZZ			03:55																								
ZZZZZZ			03:59																								
ZZZZZZ			04:04																								
CCV 240-326944/231	1		04:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-326944/232	1		04:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			04:17																								
ZZZZZZ			04:22																								
ZZZZZZ			04:26																								
ZZZZZZ			04:31																								
ZZZZZZ			04:35																								
240-95314-2	1	R	04:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-2	1	D	04:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-3	1	R	04:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-3	1	D	04:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-4	1	R	04:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-326944/243	1		05:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-326944/244	1		05:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-4	1	D	05:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-5	1	R	05:16	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-95314-5	1	D	05:21	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-95314-6	1	R	05:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-6	1	D	05:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95314-7	1	R	05:35	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-95314-7	1	D	05:39	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
CCV 240-326944/252	1		05:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-326944/253	1		05:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-326944/254	1		05:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			05:57																									
ZZZZZZ			06:02																									
ZZZZZZ			06:06																									
ZZZZZZ			06:11																									
ZZZZZZ			06:15																									
ZZZZZZ			06:20																									
ZZZZZZ			06:24																									
ZZZZZZ			06:29																									
ZZZZZZ			06:33																									
CCV 240-326944/264			06:38																									
CCB 240-326944/265			06:42																									
ZZZZZZ			06:47																									
ZZZZZZ			06:51																									
ZZZZZZ			06:56																									
ZZZZZZ			07:00																									
ZZZZZZ			07:05																									
ZZZZZZ			07:09																									
ZZZZZZ			07:14																									
ZZZZZZ			07:18																									
ZZZZZZ			07:23																									
ZZZZZZ			07:28																									
CCV 240-326944/276			07:32																									
CCB 240-326944/277			07:37																									
ZZZZZZ			07:41																									
ZZZZZZ			07:46																									
ZZZZZZ			07:50																									
ZZZZZZ			07:55																									
ZZZZZZ			07:59																									
ZZZZZZ			08:04																									
ZZZZZZ			08:09																									
ZZZZZZ			08:13																									
ZZZZZZ			08:18																									
ZZZZZZ			08:22																									
CCV 240-326944/288			08:27																									
CCB 240-326944/289			08:31																									
ZZZZZZ			08:36																									
CCV 240-326944/291			08:41																									
CCB 240-326944/292			08:45																									
CCVL 240-326944/293			08:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/15/2018 10:48 End Date: 05/16/2018 08:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/16/2018 11:40 End Date: 05/16/2018 21:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			11:40																									
ICIS 240-327282/2			11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-327282/3 IC	1		11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-327282/4 IC	1		11:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-327282/5 IC	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-327282/6 IC	1		12:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-327282/7	1		12:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-327282/8	1		12:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-327282/9			12:16																									
ICSA 240-327282/10	1		12:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-327282/11	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-327282/12			12:30																									
CCB 240-327282/13			12:34																									
ZZZZZZ			12:39																									
ZZZZZZ			12:44																									
ZZZZZZ			12:48																									
ZZZZZZ			12:53																									
ZZZZZZ			12:57																									
ZZZZZZ			13:02																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:16																									
ZZZZZZ			13:20																									
CCV 240-327282/24			13:25																									
CCB 240-327282/25			13:29																									
ZZZZZZ			13:34																									
ZZZZZZ			13:38																									
ZZZZZZ			13:43																									
ZZZZZZ			13:47																									
ZZZZZZ			13:52																									
ZZZZZZ			13:56																									
ZZZZZZ			14:01																									
ZZZZZZ			14:05																									
ZZZZZZ			14:10																									
ZZZZZZ			14:14																									
CCV 240-327282/36			14:19																									
CCB 240-327282/37			14:23																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
CCV 240-327282/40	1		14:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-327282/41	1		14:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-327282/42			14:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/16/2018 11:40 End Date: 05/16/2018 21:36

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn							
MB 240-326663/1-A	1	R	14:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-326663/2-A	1	R	14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			14:59																								
ZZZZZZ			15:04																								
ZZZZZZ			15:08																								
ZZZZZZ			15:13																								
ZZZZZZ			15:17																								
240-95494-2	1	R	15:22				X																				
240-95494-2	1	D	15:26				X																				
CCV 240-327282/52	1		15:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/53	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95494-3	1	R	15:40				X																				
240-95494-3	1	D	15:44				X																				
240-95494-4	1	R	15:49				X																				
240-95494-4	1	D	15:53				X																				
240-95494-5	1	R	15:58				X																				
240-95494-5	1	D	16:02				X																				
240-95494-6	1	R	16:07				X																				
240-95494-6	1	D	16:12				X																				
240-95494-7	1	R	16:16				X																				
240-95494-7	1	D	16:21				X																				
CCV 240-327282/64	1		16:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/65	1		16:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-327282/66	1		16:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/67	1		16:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-327282/68	1		16:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			16:48																								
ZZZZZZ			16:52																								
ZZZZZZ			16:57																								
ZZZZZZ			17:01																								
MB 240-326193/1-A	1	R	17:06				X																				
LCS 240-326193/2-A	1	R	17:10				X																				
ZZZZZZ			17:15																								
ZZZZZZ			17:19																								
ZZZZZZ			17:24																								
CCV 240-327282/78	1		17:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/79	1		17:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			17:37																								
ZZZZZZ			17:42																								
ZZZZZZ			17:46																								
ZZZZZZ			17:50																								
ZZZZZZ			17:55																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/16/2018 11:40 End Date: 05/16/2018 21:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:59																									
ZZZZZZ			18:04																									
ZZZZZZ			18:08																									
ZZZZZZ			18:13																									
240-95314-2	1	R	18:17				X																					
CCV 240-327282/90	1		18:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/91	1		18:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95314-2	1	D	18:31				X																					
240-95314-3	1	R	18:36				X																					
240-95314-3	1	D	18:40				X																					
240-95314-4	1	R	18:45				X																					
240-95314-4	1	D	18:49				X																					
240-95314-5	1	R	18:54				X																					
240-95314-5	2	R	18:58										X															
240-95314-5	1	D	19:03				X																					
240-95314-5	2	D	19:07										X															
240-95314-6	1	R	19:12				X																					
CCV 240-327282/102	1		19:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/103	1		19:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95314-6	1	D	19:25				X																					
240-95314-7	1	R	19:30				X																					
240-95314-7	5	R	19:34										X															
240-95314-7	1	D	19:39				X																					
240-95314-7	5	D	19:43										X															
CCV 240-327282/109	1		19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-327282/110	1		19:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-327282/111	1		19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			20:01																									
ZZZZZZ			20:06																									
ZZZZZZ			20:10																									
ZZZZZZ			20:15																									
ZZZZZZ			20:19																									
ZZZZZZ			20:24																									
ZZZZZZ			20:28																									
ZZZZZZ			20:33																									
ZZZZZZ			20:37																									
CCV 240-327282/121			20:42																									
CCB 240-327282/122			20:46																									
ZZZZZZ			20:51																									
ZZZZZZ			20:55																									
ZZZZZZ			21:00																									
ZZZZZZ			21:04																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/16/2018 11:40 End Date: 05/16/2018 21:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:08																									
ZZZZZZ			21:13																									
ZZZZZZ			21:17																									
ZZZZZZ			21:22																									
CCV 240-327282/131			21:26																									
CCB 240-327282/132			21:31																									
CCVL 240-327282/133			21:36																									

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			09:55																									
ICIS 240-327536/2			09:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD1 240-327536/3 IC	1		10:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD2 240-327536/4 IC	1		10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD3 240-327536/5 IC	1		10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD4 240-327536/6 IC	1		10:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICV 240-327536/7	1		10:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICB 240-327536/8	1		10:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICVL 240-327536/9	1		10:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-327536/10	1		10:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICSAB 240-327536/11	1		10:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-327536/12			10:44																									
CCB 240-327536/13			10:49																									
ZZZZZZ			11:04																									
ZZZZZZ			11:08																									
ZZZZZZ			11:13																									
ZZZZZZ			11:17																									
ZZZZZZ			11:22																									
ZZZZZZ			11:27																									
CCV 240-327536/20			11:31																									
CCB 240-327536/21			11:36																									
ZZZZZZ			11:40																									
ZZZZZZ			11:45																									
ZZZZZZ			11:49																									
ZZZZZZ			11:54																									
ZZZZZZ			11:58																									
ZZZZZZ			12:03																									
ZZZZZZ			12:07																									
ZZZZZZ			12:12																									
CCV 240-327536/30			12:16																									
CCB 240-327536/31			12:21																									
CCVL 240-327536/32			12:25																									
ZZZZZZ			12:30																									
ZZZZZZ			12:34																									
ZZZZZZ			12:39																									
ZZZZZZ			12:43																									
ZZZZZZ			12:48																									
ZZZZZZ			12:52																									
ZZZZZZ			12:57																									
ZZZZZZ			13:01																									
ZZZZZZ			13:06																									
CCV 240-327536/42			13:10																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn											
CCB 240-327536/43			13:15																											
ZZZZZZ			13:19																											
ZZZZZZ			13:24																											
CCV 240-327536/46			13:28																											
CCB 240-327536/47			13:33																											
ZZZZZZ			13:37																											
ZZZZZZ			13:42																											
ZZZZZZ			13:47																											
ZZZZZZ			13:51																											
ZZZZZZ			13:56																											
ZZZZZZ			14:00																											
ZZZZZZ			14:05																											
ZZZZZZ			14:09																											
CCV 240-327536/56			14:13																											
CCB 240-327536/57			14:18																											
ZZZZZZ			14:22																											
ZZZZZZ			14:27																											
ZZZZZZ			14:31																											
ZZZZZZ			14:36																											
ZZZZZZ			14:40																											
ZZZZZZ			14:45																											
ZZZZZZ			14:49																											
ZZZZZZ			14:54																											
ZZZZZZ			14:58																											
ZZZZZZ			15:03																											
CCV 240-327536/68			15:07																											
CCB 240-327536/69			15:12																											
ZZZZZZ			15:16																											
ZZZZZZ			15:21																											
ZZZZZZ			15:25																											
ZZZZZZ			15:30																											
ZZZZZZ			15:34																											
ZZZZZZ			15:39																											
ZZZZZZ			15:43																											
ZZZZZZ			15:48																											
CCV 240-327536/78			15:52																											
CCB 240-327536/79			15:57																											
CCVL 240-327536/80			16:01																											
ZZZZZZ			16:06																											
ZZZZZZ			16:10																											
ZZZZZZ			16:15																											
ZZZZZZ			16:19																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn											
ZZZZZZ			16:24																											
ZZZZZZ			16:28																											
ZZZZZZ			16:33																											
ZZZZZZ			16:37																											
ZZZZZZ			16:42																											
CCV 240-327536/90			16:46																											
CCB 240-327536/91			16:51																											
ZZZZZZ			16:55																											
ZZZZZZ			17:00																											
ZZZZZZ			17:04																											
ZZZZZZ			17:09																											
ZZZZZZ			17:13																											
ZZZZZZ			17:18																											
ZZZZZZ			17:22																											
ZZZZZZ			17:27																											
ZZZZZZ			17:31																											
ZZZZZZ			17:36																											
CCV 240-327536/102			17:40																											
CCB 240-327536/103			17:45																											
ZZZZZZ			17:49																											
ZZZZZZ			17:54																											
ZZZZZZ			17:58																											
ZZZZZZ			18:03																											
CCV 240-327536/108			18:07																											
CCB 240-327536/109			18:12																											
CCVL 240-327536/110			18:16																											
ZZZZZZ			18:21																											
ZZZZZZ			18:25																											
ZZZZZZ			18:30																											
ZZZZZZ			18:34																											
ZZZZZZ			18:39																											
ZZZZZZ			18:43																											
ZZZZZZ			18:47																											
ZZZZZZ			18:52																											
ZZZZZZ			18:56																											
CCV 240-327536/120			19:01																											
CCB 240-327536/121			19:05																											
ZZZZZZ			19:10																											
ZZZZZZ			19:14																											
ZZZZZZ			19:19																											
ZZZZZZ			19:23																											
ZZZZZZ			19:28																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn									
CCV 240-327536/127			19:32																									
CCB 240-327536/128			19:37																									
ZZZZZZ			19:41																									
ZZZZZZ			19:46																									
ZZZZZZ			19:50																									
ZZZZZZ			19:55																									
ZZZZZZ			19:59																									
ZZZZZZ			20:04																									
ZZZZZZ			20:08																									
ZZZZZZ			20:12																									
ZZZZZZ			20:17																									
ZZZZZZ			20:22																									
CCV 240-327536/139			20:26																									
CCB 240-327536/140			20:31																									
ZZZZZZ			20:35																									
ZZZZZZ			20:40																									
ZZZZZZ			20:44																									
ICSA 240-327536/144	1		20:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-327536/145	1		20:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			20:58																									
ZZZZZZ			21:02																									
ZZZZZZ			21:07																									
ZZZZZZ			21:11																									
ZZZZZZ			21:16																									
ZZZZZZ			21:20																									
ZZZZZZ			21:25																									
CCV 240-327536/153			21:29																									
CCB 240-327536/154			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:43																									
ZZZZZZ			21:47																									
ZZZZZZ			21:52																									
CCV 240-327536/159			21:56																									
CCB 240-327536/160			22:01																									
CCVL 240-327536/161	1		22:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			22:10																									
ZZZZZZ			22:15																									
ZZZZZZ			22:19																									
ZZZZZZ			22:23																									
ZZZZZZ			22:28																									
ZZZZZZ			22:32																									
ZZZZZZ			22:37																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			22:41																									
ZZZZZZ			22:46																									
CCV 240-327536/171			22:50																									
CCB 240-327536/172			22:55																									
ZZZZZZ			22:59																									
ZZZZZZ			23:04																									
ZZZZZZ			23:08																									
ZZZZZZ			23:13																									
ZZZZZZ			23:17																									
ZZZZZZ			23:22																									
ZZZZZZ			23:26																									
ZZZZZZ			23:31																									
ZZZZZZ			23:36																									
ZZZZZZ			23:40																									
CCV 240-327536/183			23:45																									
CCB 240-327536/184			23:49																									
ZZZZZZ			23:54																									
CCV 240-327536/186	1		23:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-327536/187	1		00:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MB 240-327060/1-A	1	R	00:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-327060/3-A	1	R	00:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			00:16																									
ZZZZZZ			00:21																									
ZZZZZZ			00:26																									
ZZZZZZ			00:30																									
ZZZZZZ			00:34																									
240-95580-2	1	R	00:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95580-2	1	D	00:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95580-3	1	R	00:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-327536/198	1		00:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-327536/199	1		00:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95580-3	1	D	01:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95580-4	1	R	01:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95580-4	1	D	01:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			01:15																									
ZZZZZZ			01:20																									
ZZZZZZ			01:24																									
ZZZZZZ			01:29																									
ZZZZZZ			01:34																									
ZZZZZZ			01:38																									
CCV 240-327536/209	1		01:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-327536/210	1		01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/18/2018 09:55 End Date: 05/19/2018 03:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Pb	Sb	Se	Tl	V	Zn									
CCVL 240-327536/211	1		01:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			01:56																									
ZZZZZZ			02:01																									
ZZZZZZ			02:06																									
ZZZZZZ			02:10																									
ZZZZZZ			02:15																									
ZZZZZZ			02:19																									
ZZZZZZ			02:24																									
ZZZZZZ			02:28																									
ZZZZZZ			02:33																									
CCV 240-327536/221			02:37																									
CCB 240-327536/222			02:42																									
ZZZZZZ			02:46																									
ZZZZZZ			02:51																									
ZZZZZZ			02:55																									
ZZZZZZ			03:00																									
ZZZZZZ			03:04																									
ZZZZZZ			03:09																									
ZZZZZZ			03:14																									
ZZZZZZ			03:18																									
ZZZZZZ			03:23																									
ZZZZZZ			03:27																									
CCV 240-327536/233			03:32																									
CCB 240-327536/234			03:36																									
ZZZZZZ			03:41																									
CCV 240-327536/236			03:45																									
CCB 240-327536/237			03:50																									
CCV 240-327536/238			03:54																									
CCB 240-327536/239			03:59																									

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/22/2018 10:46 End Date: 05/23/2018 01:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
ZZZZZZ			10:46																										
ICIS 240-328140/2			10:51	X	X																								
STD1 240-328140/3 IC	1		10:55	X	X																								
STD2 240-328140/4 IC	1		11:00	X	X																								
STD3 240-328140/5 IC	1		11:04	X	X																								
STD4 240-328140/6 IC	1		11:09	X	X																								
ICV 240-328140/7	1		11:13	X	X																								
ICB 240-328140/8	1		11:18	X	X																								
ICVL 240-328140/9	1		11:22	X	X																								
ICSA 240-328140/10	1		11:27	X	X																								
ICSAB 240-328140/11	1		11:31	X	X																								
CCV 240-328140/12			11:36																										
CCB 240-328140/13			11:40																										
ZZZZZZ			11:45																										
ZZZZZZ			11:49																										
ZZZZZZ			11:54																										
ZZZZZZ			11:58																										
ZZZZZZ			12:02																										
ZZZZZZ			12:07																										
ZZZZZZ			12:11																										
ZZZZZZ			12:16																										
ZZZZZZ			12:20																										
ZZZZZZ			12:25																										
CCV 240-328140/24			12:29																										
CCB 240-328140/25			12:34																										
ZZZZZZ			12:38																										
ZZZZZZ			12:43																										
ZZZZZZ			12:47																										
ZZZZZZ			12:52																										
ZZZZZZ			12:56																										
CCV 240-328140/31			13:01																										
CCB 240-328140/32			13:05																										
CCVL 240-328140/33			13:10																										
ZZZZZZ			13:14																										
ZZZZZZ			13:19																										
ZZZZZZ			13:23																										
ZZZZZZ			13:28																										
ZZZZZZ			13:32																										
ZZZZZZ			13:37																										
ZZZZZZ			13:41																										
ZZZZZZ			13:46																										
ZZZZZZ			13:50																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/22/2018 10:46 End Date: 05/23/2018 01:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
CCV 240-328140/43			13:55																										
CCB 240-328140/44			13:59																										
ZZZZZZ			14:04																										
ZZZZZZ			14:08																										
ZZZZZZ			14:13																										
ZZZZZZ			14:17																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:31																										
ZZZZZZ			14:35																										
ZZZZZZ			14:40																										
ZZZZZZ			14:44																										
CCV 240-328140/55			14:49																										
CCB 240-328140/56			14:53																										
ZZZZZZ			14:58																										
ZZZZZZ			15:02																										
ZZZZZZ			15:07																										
ZZZZZZ			15:11																										
ZZZZZZ			15:16																										
ZZZZZZ			15:20																										
ZZZZZZ			15:25																										
ZZZZZZ			15:29																										
ZZZZZZ			15:34																										
ZZZZZZ			15:38																										
CCV 240-328140/67			15:43																										
CCB 240-328140/68			15:47																										
ZZZZZZ			15:52																										
ZZZZZZ			15:56																										
ZZZZZZ			16:01																										
ZZZZZZ			16:05																										
ZZZZZZ			16:10																										
ZZZZZZ			16:14																										
ZZZZZZ			16:19																										
CCV 240-328140/76	1		16:23	X	X																								
CCB 240-328140/77	1		16:28	X	X																								
CCVL 240-328140/78			16:32																										
MB 240-327060/1-A	1	R	16:37	X	X																								
ZZZZZZ			16:41																										
ZZZZZZ			16:46																										
ZZZZZZ			16:50																										
ZZZZZZ			16:55																										
ZZZZZZ			16:59																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/22/2018 10:46 End Date: 05/23/2018 01:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
ZZZZZZ			17:03																										
CCV 240-328140/86	1		17:08	X	X																								
CCB 240-328140/87	1		17:12	X	X																								
CCVL 240-328140/88	1		17:17	X	X																								
240-95580-2	1	R	17:21	X	X																								
240-95580-2	1	D	17:26	X	X																								
240-95580-3	1	R	17:30	X	X																								
240-95580-3	1	D	17:35	X	X																								
240-95580-4	1	R	17:39	X	X																								
240-95580-4	1	D	17:44	X	X																								
ZZZZZZ			17:48																										
ZZZZZZ			17:53																										
ZZZZZZ			17:57																										
CCV 240-328140/98	1		18:02	X	X																								
CCB 240-328140/99	1		18:06	X	X																								
ZZZZZZ			18:11																										
ZZZZZZ			18:15																										
ZZZZZZ			18:20																										
CCV 240-328140/103			18:24																										
CCB 240-328140/104			18:29																										
CCVL 240-328140/105	1		18:33	X	X																								
ZZZZZZ			18:38																										
ZZZZZZ			18:42																										
ZZZZZZ			18:47																										
ZZZZZZ			18:51																										
ZZZZZZ			18:56																										
ZZZZZZ			19:00																										
ZZZZZZ			19:05																										
ZZZZZZ			19:09																										
ZZZZZZ			19:14																										
CCV 240-328140/115			19:18																										
CCB 240-328140/116			19:23																										
ZZZZZZ			19:27																										
ZZZZZZ			19:32																										
ZZZZZZ			19:36																										
ZZZZZZ			19:41																										
ZZZZZZ			19:45																										
ZZZZZZ			19:50																										
ZZZZZZ			19:54																										
ZZZZZZ			19:59																										
ZZZZZZ			20:03																										
ZZZZZZ			20:08																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/22/2018 10:46 End Date: 05/23/2018 01:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
CCV 240-328140/127			20:12																										
CCB 240-328140/128			20:16																										
ZZZZZZ			20:21																										
ZZZZZZ			20:26																										
ZZZZZZ			20:30																										
ZZZZZZ			20:34																										
ZZZZZZ			20:39																										
ZZZZZZ			20:43																										
CCV 240-328140/135			20:48																										
CCB 240-328140/136			20:52																										
ZZZZZZ			20:57																										
ZZZZZZ			21:01																										
ZZZZZZ			21:06																										
ZZZZZZ			21:10																										
ZZZZZZ			21:15																										
ZZZZZZ			21:19																										
ZZZZZZ			21:24																										
CCV 240-328140/144			21:28																										
CCB 240-328140/145			21:33																										
ZZZZZZ			21:37																										
ZZZZZZ			21:42																										
ZZZZZZ			21:46																										
ZZZZZZ			21:51																										
ICSA 240-328140/150			21:55																										
ICSAB 240-328140/151			22:00																										
ZZZZZZ			22:04																										
ZZZZZZ			22:09																										
ZZZZZZ			22:13																										
ZZZZZZ			22:18																										
ZZZZZZ			22:22																										
ZZZZZZ			22:27																										
CCV 240-328140/158			22:31																										
CCB 240-328140/159			22:36																										
ZZZZZZ			22:40																										
ZZZZZZ			22:45																										
ZZZZZZ			22:49																										
ZZZZZZ			22:54																										
ZZZZZZ			22:58																										
ZZZZZZ			23:03																										
ZZZZZZ			23:07																										
ZZZZZZ			23:12																										
CCV 240-328140/168			23:16																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/22/2018 10:46 End Date: 05/23/2018 01:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
CCB 240-328140/169			23:20																										
ZZZZZZ			23:25																										
ZZZZZZ			23:30																										
ZZZZZZ			23:34																										
ZZZZZZ			23:38																										
ZZZZZZ			23:43																										
ZZZZZZ			23:47																										
ZZZZZZ			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:01																										
ZZZZZZ			00:05																										
CCV 240-328140/180			00:10																										
CCB 240-328140/181			00:14																										
ZZZZZZ			00:19																										
ZZZZZZ			00:23																										
ZZZZZZ			00:28																										
ZZZZZZ			00:32																										
ZZZZZZ			00:37																										
ZZZZZZ			00:41																										
ZZZZZZ			00:46																										
ZZZZZZ			00:50																										
CCV 240-328140/190			00:55																										
CCB 240-328140/191			01:00																										
CCVL 240-328140/192			01:04																										
CCV 240-328140/193			01:09																										
CCB 240-328140/194			01:13																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/23/2018 10:55 End Date: 05/23/2018 20:21

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
ZZZZZZ			10:55																										
ICIS 240-328236/2			10:59	X	X																								
STD1 240-328236/3 IC	1		11:04	X	X																								
STD2 240-328236/4 IC	1		11:08	X	X																								
STD3 240-328236/5 IC	1		11:13	X	X																								
STD4 240-328236/6 IC	1		11:17	X	X																								
ICV 240-328236/7	1		11:22	X	X																								
ICB 240-328236/8	1		11:26	X	X																								
ICVL 240-328236/9	1		11:31	X	X																								
ICSA 240-328236/10	1		11:35	X	X																								
ICSAB 240-328236/11	1		11:40	X	X																								
CCV 240-328236/12			11:44																										
CCB 240-328236/13			11:49																										
ZZZZZZ			11:55																										
ZZZZZZ			11:59																										
ZZZZZZ			12:04																										
ZZZZZZ			12:08																										
ZZZZZZ			12:13																										
ZZZZZZ			12:17																										
ZZZZZZ			12:21																										
ZZZZZZ			12:26																										
ZZZZZZ			12:30																										
ZZZZZZ			12:35																										
CCV 240-328236/24			12:39																										
CCB 240-328236/25			12:44																										
ZZZZZZ			12:48																										
ZZZZZZ			12:53																										
ZZZZZZ			12:57																										
ZZZZZZ			13:02																										
ZZZZZZ			13:06																										
ZZZZZZ			13:11																										
ZZZZZZ			13:15																										
ZZZZZZ			13:20																										
ZZZZZZ			13:24																										
ZZZZZZ			13:29																										
CCV 240-328236/36	1		13:33	X	X																								
CCB 240-328236/37	1		13:38	X	X																								
ZZZZZZ			13:42																										
ZZZZZZ			13:47																										
ZZZZZZ			13:51																										
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/23/2018 10:55 End Date: 05/23/2018 20:21

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Ni																								
LCS 240-327060/3-A	1	R	14:05	X	X																								
CCV 240-328236/44	1		14:09	X	X																								
CCB 240-328236/45	1		14:14	X	X																								
CCVL 240-328236/46	1		14:18	X																									
ZZZZZZ			14:23																										
ZZZZZZ			14:27																										
ZZZZZZ			14:32																										
ZZZZZZ			14:36																										
ZZZZZZ			14:41																										
ZZZZZZ			14:45																										
ZZZZZZ			14:50																										
ZZZZZZ			14:54																										
ZZZZZZ			14:59																										
CCV 240-328236/56			15:03																										
CCB 240-328236/57			15:08																										
ZZZZZZ			15:12																										
ZZZZZZ			15:17																										
ZZZZZZ			15:21																										
ZZZZZZ			15:26																										
ZZZZZZ			15:30																										
ZZZZZZ			15:35																										
ZZZZZZ			15:39																										
ZZZZZZ			15:44																										
ZZZZZZ			15:48																										
ZZZZZZ			15:53																										
CCV 240-328236/68			15:57																										
CCB 240-328236/69			16:02																										
ZZZZZZ			16:06																										
ZZZZZZ			16:14																										
ZZZZZZ			16:18																										
ZZZZZZ			16:23																										
ZZZZZZ			16:27																										
ZZZZZZ			16:32																										
CCV 240-328236/76			16:36																										
CCB 240-328236/77			16:41																										
CCVL 240-328236/78			16:45																										
ZZZZZZ			16:50																										
ZZZZZZ			16:55																										
ZZZZZZ			16:59																										
ZZZZZZ			17:03																										
ZZZZZZ			17:08																										
ZZZZZZ			17:12																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/23/2018 10:55 End Date: 05/23/2018 20:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Ni																							
ZZZZZZ			17:17																									
ZZZZZZ			17:21																									
ZZZZZZ			17:26																									
CCV 240-328236/88			17:30																									
CCB 240-328236/89			17:35																									
ZZZZZZ			17:39																									
ZZZZZZ			17:44																									
ZZZZZZ			17:49																									
ZZZZZZ			17:53																									
CCV 240-328236/94			17:58																									
CCB 240-328236/95			18:02																									
CCVL 240-328236/96			18:07																									
ZZZZZZ			18:11																									
ZZZZZZ			18:16																									
ZZZZZZ			18:20																									
ZZZZZZ			18:25																									
ZZZZZZ			18:29																									
ZZZZZZ			18:34																									
ZZZZZZ			18:38																									
ZZZZZZ			18:43																									
CCV 240-328236/105			18:47																									
CCB 240-328236/106			18:52																									
ZZZZZZ			18:56																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:10																									
ZZZZZZ			19:14																									
ZZZZZZ			19:19																									
ZZZZZZ			19:23																									
ZZZZZZ			19:27																									
ZZZZZZ			19:32																									
ZZZZZZ			19:36																									
CCV 240-328236/117			19:41																									
CCB 240-328236/118			19:45																									
ZZZZZZ			19:50																									
ZZZZZZ			19:54																									
ZZZZZZ			19:59																									
ZZZZZZ			20:03																									
ZZZZZZ			20:08																									
CCV 240-328236/124			20:12																									
CCB 240-328236/125			20:17																									
CCVL 240-328236/126			20:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/23/2018 10:55 End Date: 05/23/2018 20:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Ni																							

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/11/2018 11:57 End Date: 05/11/2018 15:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-326507/1-A			11:57	X																								
IC 240-326507/2-A			11:59	X																								
IC 240-326507/3-A			12:01	X																								
IC 240-326507/4-A			12:03	X																								
IC 240-326507/5-A			12:05	X																								
IC 240-326507/6-A			12:07	X																								
ICV 240-326507/7-A	1		12:51	X																								
ICB 240-326507/8-A	1		12:52	X																								
CRA 240-326507/9-A	1		12:55	X																								
CCV 240-326507/10-A			12:57																									
CCB 240-326507/11-A			12:59																									
CCV 240-326507/10-A			13:01																									
CCB 240-326507/11-A			13:03																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:54																									
ZZZZZZ			13:56																									
CCV 240-326507/10-A			13:58																									
CCB 240-326507/11-A			13:59																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									
ZZZZZZ			14:19																									
CCV 240-326507/10-A			14:21																									
CCB 240-326507/11-A			14:23																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:31																									
ZZZZZZ			14:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/11/2018 11:57 End Date: 05/11/2018 15:50

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:35	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:42	
ZZZZZZ			14:43	
CCV 240-326507/10-A	1		14:46	X
CCB 240-326507/11-A	1		14:48	X
ZZZZZZ			14:51	
MB 240-326194/1-A	1	T	14:52	X
LCS 240-326194/2-A	1	T	14:54	X
ZZZZZZ			14:56	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
ZZZZZZ			15:05	
ZZZZZZ			15:07	
ZZZZZZ			15:09	
CCV 240-326507/10-A	1		15:10	X
CCB 240-326507/11-A	1		15:12	X
ZZZZZZ			15:15	
ZZZZZZ			15:17	
ZZZZZZ			15:19	
240-95314-2	1	T	15:20	X
240-95314-2	1	D	15:22	X
240-95314-3	1	T	15:24	X
240-95314-3	1	D	15:26	X
240-95314-4	1	T	15:28	X
240-95314-4	1	D	15:30	X
240-95314-5	1	T	15:32	X
CCV 240-326507/10-A	1		15:34	X
CCB 240-326507/11-A	1		15:36	X
240-95314-5	1	D	15:38	X
240-95314-6	1	T	15:40	X
240-95314-6	1	D	15:42	X
240-95314-7	1	T	15:44	X
240-95314-7	1	D	15:46	X
CCV 240-326507/10-A	1		15:48	X
CCB 240-326507/11-A	1		15:50	X

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/15/2018 09:17 End Date: 05/15/2018 15:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-326737/1-A			09:17	X																								
IC 240-326737/2-A			09:19	X																								
IC 240-326737/3-A			09:21	X																								
IC 240-326737/4-A			09:23	X																								
IC 240-326737/5-A			09:25	X																								
IC 240-326737/6-A			09:27	X																								
ICV 240-326737/7-A	1		09:34	X																								
ICB 240-326737/8-A	1		09:36	X																								
CRA 240-326737/9-A	1		09:38	X																								
CCV 240-326737/10-A			09:40																									
CCB 240-326737/11-A			09:42																									
ZZZZZZ			09:44																									
ZZZZZZ			09:46																									
ZZZZZZ			09:48																									
ZZZZZZ			09:51																									
ZZZZZZ			09:52																									
ZZZZZZ			09:54																									
ZZZZZZ			09:56																									
ZZZZZZ			09:58																									
ZZZZZZ			10:00																									
ZZZZZZ			10:02																									
CCV 240-326737/10-A			10:04																									
CCB 240-326737/11-A			10:06																									
ZZZZZZ			10:08																									
ZZZZZZ			10:10																									
ZZZZZZ			10:12																									
ZZZZZZ			10:14																									
ZZZZZZ			10:16																									
ZZZZZZ			10:18																									
ZZZZZZ			10:20																									
ZZZZZZ			10:22																									
ZZZZZZ			10:24																									
ZZZZZZ			10:26																									
CCV 240-326737/10-A			10:28																									
CCB 240-326737/11-A			10:30																									
ZZZZZZ			10:32																									
ZZZZZZ			10:34																									
ZZZZZZ			10:36																									
CCV 240-326737/10-A			10:39																									
CCB 240-326737/11-A			10:42																									
ZZZZZZ			10:46																									
CCV 240-326737/10-A	1		10:48	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/15/2018 09:17 End Date: 05/15/2018 15:19

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
CCB 240-326737/11-A	1		10:50	X
MB 240-326669/1-A	1	T	11:45	X
LCS 240-326669/2-A	1	T	11:47	X
ZZZZZZ			11:49	
ZZZZZZ			11:51	
ZZZZZZ			11:53	
ZZZZZZ			11:55	
CCV 240-326737/10-A	1		11:57	X
CCB 240-326737/11-A	1		11:59	X
ZZZZZZ			12:01	
240-95494-2	1	T	12:03	X
240-95494-2	1	D	12:05	X
240-95494-3	1	T	12:07	X
240-95494-3	1	D	12:09	X
240-95494-4	1	T	12:11	X
240-95494-4	1	D	12:13	X
240-95494-5	1	T	12:15	X
240-95494-5	1	D	12:17	X
240-95494-6	1	T	12:19	X
CCV 240-326737/10-A	1		12:21	X
CCB 240-326737/11-A	1		12:23	X
240-95494-6	1	D	12:25	X
240-95494-7	1	T	12:27	X
240-95494-7	1	D	12:29	X
ZZZZZZ			12:31	
ZZZZZZ			12:33	
ZZZZZZ			12:35	
ZZZZZZ			12:37	
ZZZZZZ			12:39	
CCV 240-326737/10-A	1		12:40	X
CCB 240-326737/11-A	1		12:42	X
ZZZZZZ			13:03	
ZZZZZZ			13:05	
CCV 240-326737/10-A			13:07	
CCB 240-326737/11-A			13:09	
ZZZZZZ			13:11	
ZZZZZZ			13:13	
ZZZZZZ			13:15	
ZZZZZZ			13:17	
ZZZZZZ			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/15/2018 09:17 End Date: 05/15/2018 15:19

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
CCV 240-326737/10-A			13:31	
CCB 240-326737/11-A			13:33	
ZZZZZZ			13:35	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:41	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:47	
ZZZZZZ			13:49	
ZZZZZZ			13:51	
ZZZZZZ			13:53	
CCV 240-326737/10-A			13:55	
CCB 240-326737/11-A			13:57	
ZZZZZZ			13:59	
ZZZZZZ			14:01	
ZZZZZZ			14:03	
ZZZZZZ			14:05	
ZZZZZZ			14:07	
ZZZZZZ			14:09	
ZZZZZZ			14:11	
ZZZZZZ			14:13	
ZZZZZZ			14:15	
ZZZZZZ			14:17	
CCV 240-326737/10-A			14:19	
CCB 240-326737/11-A			14:21	
ZZZZZZ			14:24	
ZZZZZZ			14:25	
ZZZZZZ			14:27	
ZZZZZZ			14:29	
ZZZZZZ			14:31	
ZZZZZZ			14:33	
ZZZZZZ			14:35	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:41	
CCV 240-326737/10-A			14:43	
CCB 240-326737/11-A			14:45	
ZZZZZZ			14:47	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/15/2018 09:17 End Date: 05/15/2018 15:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:49																									
ZZZZZZ			14:51																									
ZZZZZZ			14:53																									
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			14:59																									
ZZZZZZ			15:01																									
ZZZZZZ			15:03																									
ZZZZZZ			15:05																									
CCV 240-326737/10-A			15:07																									
CCB 240-326737/11-A			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
CRA 240-326737/9-A			15:15																									
CCV 240-326737/10-A			15:17																									
CCB 240-326737/11-A			15:19																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/17/2018 11:50 End Date: 05/17/2018 15:06

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-327320/1-A			11:50	X																								
IC 240-327320/2-A			11:52	X																								
IC 240-327320/3-A			11:54	X																								
IC 240-327320/4-A			11:56	X																								
IC 240-327320/5-A			11:58	X																								
IC 240-327320/6-A			12:00	X																								
ICV 240-327320/7-A	1		12:09	X																								
ICB 240-327320/8-A	1		12:11	X																								
CRA 240-327320/9-A	1		12:13	X																								
CCV 240-327320/10-A			12:15																									
CCB 240-327320/11-A			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:21																									
ZZZZZZ			12:23																									
ZZZZZZ			12:25																									
ZZZZZZ			12:28																									
ZZZZZZ			12:29																									
ZZZZZZ			12:32																									
CCV 240-327320/10-A			12:34																									
CCB 240-327320/11-A			12:36																									
ZZZZZZ			13:03																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
CCV 240-327320/10-A			13:08																									
CCB 240-327320/11-A			13:10																									
ZZZZZZ			13:13																									
ZZZZZZ			13:15																									
ZZZZZZ			13:17																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									
CCV 240-327320/10-A	1		13:30	X																								
CCB 240-327320/11-A	1		13:32	X																								
MB 240-327064/1-A	1	T	14:22	X																								
CCV 240-327320/10-A	1		14:24	X																								
CCB 240-327320/11-A	1		14:26	X																								
LCS 240-327064/2-A	1	T	14:28	X																								
ZZZZZZ			14:30																									
ZZZZZZ			14:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/17/2018 11:50 End Date: 05/17/2018 15:06

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:35																									
ZZZZZZ			14:37																									
240-95580-2	1	T	14:39	X																								
240-95580-2	1	D	14:41	X																								
240-95580-3	1	T	14:43	X																								
240-95580-3	1	D	14:45	X																								
240-95580-4	1	T	14:47	X																								
CCV 240-327320/10-A	1		14:49	X																								
CCB 240-327320/11-A	1		14:50	X																								
240-95580-4	1	D	14:53	X																								
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			14:59																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
CCV 240-327320/10-A	1		15:04	X																								
CCB 240-327320/11-A	1		15:06	X																								

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/15/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-326944/3 IC	10:57	99		98		99		97		98	
STD2 240-326944/4 IC	11:02	97		98		96		94		95	
STD3 240-326944/5 IC	11:06	94		98		97		92		93	
STD4 240-326944/6 IC	11:11	96		98		97		98		98	
ICV 240-326944/7	11:15	97		99		97		94		96	
ICB 240-326944/8	11:20	97		97		98		98		99	
ICVL 240-326944/9	11:24	97		99		98		98		99	
ICSA 240-326944/10	11:29	92		97		96		90		93	
ICSAB 240-326944/11	11:33	91		98		95		92		93	
ICSA 240-326944/152	22:11	89		98		93		87		91	
ICSAB 240-326944/153	22:15	88		98		93		88		91	
CCV 240-326944/186	00:45	94		103		97		93		97	
CCB 240-326944/187	00:49	94		98		96		95		95	
MB 240-326663/1-A	00:58	88		96		92		91		90	
LCS 240-326663/2-A	01:03	85		96		89		88		88	
CCV 240-326944/198	01:39	90		97		92		89		90	
CCB 240-326944/199	01:43	92		94		93		90		91	
240-95494-2	01:48	83		93		90		85		86	
240-95494-2	01:52	83		93		90		86		86	
240-95494-3	01:57	84		93		90		88		88	
240-95494-3	02:01	83		95		90		88		88	
240-95494-4	02:06	82		93		89		86		86	
240-95494-4	02:10	81		93		89		85		86	
240-95494-5	02:15	81		90		86		83		83	
240-95494-5	02:19	81		90		87		84		83	
240-95494-6	02:24	81		91		87		85		84	
240-95494-6	02:29	81		91		86		85		85	
CCV 240-326944/210	02:33	88		98		93		87		88	
CCB 240-326944/211	02:38	93		95		93		90		89	
240-95494-7	02:42	82		92		90		85		86	
240-95494-7	02:47	81		92		88		87		86	
CCV 240-326944/219	03:14	88		93		90		85		88	
CCB 240-326944/220	03:18	88		92		88		88		89	
CCVL 240-326944/221	03:23	89		92		88		88		89	
MB 240-326193/1-A	03:28	83		91		86		86		85	
LCS 240-326193/2-A	03:32	81		89		86		83		83	
CCV 240-326944/231	04:08	84		92		86		83		87	
CCB 240-326944/232	04:13	87		91		89		87		89	

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/15/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
240-95314-2	04:40	80		92		86		87		89	
240-95314-2	04:44	82		90		86		85		86	
240-95314-3	04:49	80		90		86		86		88	
240-95314-3	04:54	80		90		84		85		86	
240-95314-4	04:58	81		90		84		87		87	
CCV 240-326944/243	05:03	83		89		85		82		85	
CCB 240-326944/244	05:07	86		88		85		86		88	
240-95314-4	05:12	81		89		85		85		86	
240-95314-5	05:16	73		83		80		73		75	
240-95314-5	05:21	74		85		82		74		77	
240-95314-6	05:26	79		89		85		82		86	
240-95314-6	05:30	77		89		85		82		85	
240-95314-7	05:35	74		84		82		73		76	
240-95314-7	05:39	75		86		83		75		78	
CCV 240-326944/252	05:44	90		96		92		86		90	
CCB 240-326944/253	05:48	91		92		89		89		90	
CCVL 240-326944/254	05:53	90		93		89		88		91	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/15/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-326944/3 IC	10:57	98		99		104					
STD2 240-326944/4 IC	11:02	97		97		99					
STD3 240-326944/5 IC	11:06	96		97		99					
STD4 240-326944/6 IC	11:11	98		100		99					
ICV 240-326944/7	11:15	98		99		98					
ICB 240-326944/8	11:20	100		100		100					
ICVL 240-326944/9	11:24	99		100		105					
ICSA 240-326944/10	11:29	96		98		100					
ICSAB 240-326944/11	11:33	98		100		103					
ICSA 240-326944/152	22:11	93		93		92					
ICSAB 240-326944/153	22:15	94		94		95					
CCV 240-326944/186	00:45	93		94		93					
CCB 240-326944/187	00:49	92		92		95					
MB 240-326663/1-A	00:58	87		88		94					
LCS 240-326663/2-A	01:03	88		88		89					
CCV 240-326944/198	01:39	90		90		89					
CCB 240-326944/199	01:43	88		88		92					
240-95494-2	01:48	86		85		87					
240-95494-2	01:52	87		86		87					
240-95494-3	01:57	87		86		91					
240-95494-3	02:01	88		87		91					
240-95494-4	02:06	86		86		88					
240-95494-4	02:10	86		86		87					
240-95494-5	02:15	84		84		85					
240-95494-5	02:19	83		83		85					
240-95494-6	02:24	84		84		85					
240-95494-6	02:29	84		84		86					
CCV 240-326944/210	02:33	87		87		85					
CCB 240-326944/211	02:38	87		86		89					
240-95494-7	02:42	84		83		87					
240-95494-7	02:47	84		84		87					
CCV 240-326944/219	03:14	87		87		86					
CCB 240-326944/220	03:18	85		84		89					
CCVL 240-326944/221	03:23	85		85		89					
MB 240-326193/1-A	03:28	83		83		89					
LCS 240-326193/2-A	03:32	84		84		84					
CCV 240-326944/231	04:08	86		85		85					
CCB 240-326944/232	04:13	86		86		88					

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/15/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-95314-2	04:40	87		87		89					
240-95314-2	04:44	86		85		88					
240-95314-3	04:49	86		85		88					
240-95314-3	04:54	84		84		87					
240-95314-4	04:58	85		85		90					
CCV 240-326944/243	05:03	85		85		84					
CCB 240-326944/244	05:07	86		86		88					
240-95314-4	05:12	84		84		91					
240-95314-5	05:16	79		79		74					
240-95314-5	05:21	79		78		75					
240-95314-6	05:26	85		85		85					
240-95314-6	05:30	84		84		85					
240-95314-7	05:35	79		79		72					
240-95314-7	05:39	80		80		73					
CCV 240-326944/252	05:44	88		88		86					
CCB 240-326944/253	05:48	87		88		91					
CCVL 240-326944/254	05:53	87		87		89					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/16/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-327282/3 IC	11:49	98		102		100		98		99	
STD2 240-327282/4 IC	11:54	97		103		99		96		97	
STD3 240-327282/5 IC	11:58	99		103		101		94		96	
STD4 240-327282/6 IC	12:03	98		103		100		101		100	
ICV 240-327282/7	12:07	96		103		100		97		98	
ICB 240-327282/8	12:12	101		99		100		101		101	
ICSA 240-327282/10	12:21	97		103		102		93		95	
ICSAB 240-327282/11	12:25	94		103		99		94		96	
CCV 240-327282/40	14:37	90		97		97		96		96	
CCB 240-327282/41	14:41	99		95		98		101		100	
MB 240-326663/1-A	14:50	88		100		97		101		100	
LCS 240-326663/2-A	14:55	84		100		96		100		99	
240-95494-2	15:22	81		97		94		96		95	
240-95494-2	15:26	80		96		93		95		95	
CCV 240-327282/52	15:31	90		98		97		97		96	
CCB 240-327282/53	15:35	96		96		99		101		101	
240-95494-3	15:40	85		97		95		97		98	
240-95494-3	15:44	83		96		95		98		98	
240-95494-4	15:49	81		96		96		95		97	
240-95494-4	15:53	84		96		95		96		97	
240-95494-5	15:58	86		96		96		96		95	
240-95494-5	16:02	84		98		97		96		96	
240-95494-6	16:07	87		99		99		98		98	
240-95494-6	16:12	87		101		99		98		98	
240-95494-7	16:16	87		100		99		99		99	
240-95494-7	16:21	87		100		100		99		99	
CCV 240-327282/64	16:25	94		102		102		97		97	
CCB 240-327282/65	16:30	99		99		101		102		100	
CCV 240-327282/66	16:34	97		104		102		97		97	
CCB 240-327282/67	16:39	101		100		102		101		101	
CCVL 240-327282/68	16:43	100		101		101		100		101	
MB 240-326193/1-A	17:06	88		98		97		102		99	
LCS 240-326193/2-A	17:10	82		96		94		96		94	
CCV 240-327282/78	17:28	90		98		96		95		96	
CCB 240-327282/79	17:33	95		95		98		99		98	
240-95314-2	18:17	80		92		91		96		97	
CCV 240-327282/90	18:22	84		90		89		92		92	
CCB 240-327282/91	18:26	89		89		93		95		95	
240-95314-2	18:31	82		93		92		94		96	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/16/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
240-95314-3	18:36	81		93		94		95		97	
240-95314-3	18:40	81		94		94		96		98	
240-95314-4	18:45	83		93		93		97		97	
240-95314-4	18:49	80		92		91		97		97	
240-95314-5	18:54	75		88		88		83		86	
240-95314-5	18:58	83		93		93		90		92	
240-95314-5	19:03	80		93		92		87		89	
240-95314-5	19:07	86		97		96		91		94	
240-95314-6	19:12	83		97		96		96		97	
CCV 240-327282/102	19:16	93		103		99		100		100	
CCB 240-327282/103	19:21	97		100		101		102		102	
240-95314-6	19:25	83		97		93		94		95	
240-95314-7	19:30	78		93		91		85		86	
240-95314-7	19:34	88		96		96		93		94	
240-95314-7	19:39	79		94		93		84		87	
240-95314-7	19:43	90		98		98		95		98	
CCV 240-327282/109	19:48	94		102		98		97		99	
CCB 240-327282/110	19:52	98		97		100		101		101	
CCVL 240-327282/111	19:57	97		100		102		101		102	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/16/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-327282/3 IC	11:49	98		99		108					
STD2 240-327282/4 IC	11:54	97		99		104					
STD3 240-327282/5 IC	11:58	98		100		105					
STD4 240-327282/6 IC	12:03	100		100		103					
ICV 240-327282/7	12:07	99		101		104					
ICB 240-327282/8	12:12	101		103		102					
ICSA 240-327282/10	12:21	98		99		105					
ICSAB 240-327282/11	12:25	100		101		107					
CCV 240-327282/40	14:37	100		102		104					
CCB 240-327282/41	14:41	100		102		101					
MB 240-326663/1-A	14:50	100		102		114					
LCS 240-326663/2-A	14:55	103		105		111					
240-95494-2	15:22	99		99		107					
240-95494-2	15:26	96		97		106					
CCV 240-327282/52	15:31	98		100		104					
CCB 240-327282/53	15:35	100		101		101					
240-95494-3	15:40	99		100		110					
240-95494-3	15:44	99		100		110					
240-95494-4	15:49	99		101		105					
240-95494-4	15:53	99		101		105					
240-95494-5	15:58	98		99		104					
240-95494-5	16:02	97		99		103					
240-95494-6	16:07	99		101		105					
240-95494-6	16:12	99		99		107					
240-95494-7	16:16	97		98		107					
240-95494-7	16:21	97		98		106					
CCV 240-327282/64	16:25	98		98		103					
CCB 240-327282/65	16:30	102		103		100					
CCV 240-327282/66	16:34	98		99		102					
CCB 240-327282/67	16:39	100		101		100					
CCVL 240-327282/68	16:43	99		100		109					
MB 240-326193/1-A	17:06	101		101		111					
LCS 240-326193/2-A	17:10	96		98		104					
CCV 240-327282/78	17:28	98		99		102					
CCB 240-327282/79	17:33	97		100		101					
240-95314-2	18:17	96		98		106					
CCV 240-327282/90	18:22	94		96		101					
CCB 240-327282/91	18:26	95		95		99					
240-95314-2	18:31	95		96		106					

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/16/2018 End Date: 05/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-95314-3	18:36	97		98		107					
240-95314-3	18:40	98		100		109					
240-95314-4	18:45	100		101		110					
240-95314-4	18:49	98		100		110					
240-95314-5	18:54	90		93		92					
240-95314-5	18:58	97		99		100					
240-95314-5	19:03	93		94		93					
240-95314-5	19:07	97		98		100					
240-95314-6	19:12	100		100		107					
CCV 240-327282/102	19:16	106		102		107					
CCB 240-327282/103	19:21	102		103		105					
240-95314-6	19:25	97		98		105					
240-95314-7	19:30	93		94		90					
240-95314-7	19:34	96		98		103					
240-95314-7	19:39	92		92		90					
240-95314-7	19:43	100		102		105					
CCV 240-327282/109	19:48	100		102		105					
CCB 240-327282/110	19:52	102		104		106					
CCVL 240-327282/111	19:57	101		104		113					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/18/2018 End Date: 05/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-327536/3 IC	10:04	97		98		101		96		97	
STD2 240-327536/4 IC	10:08	94		99		99		96		98	
STD3 240-327536/5 IC	10:13	95		100		101		94		95	
STD4 240-327536/6 IC	10:17	95		99		97		98		98	
ICV 240-327536/7	10:22	96		101		101		97		98	
ICB 240-327536/8	10:26	98		100		99		98		97	
ICVL 240-327536/9	10:31	95		101		100		98		98	
ICSA 240-327536/10	10:35	90		96		97		90		93	
ICSAB 240-327536/11	10:40	87		96		97		91		94	
ICSA 240-327536/144	20:49	88		104		104		101		104	
ICSAB 240-327536/145	20:53	86		107		104		102		105	
CCVL 240-327536/161	22:05	92		107		104		106		106	
CCV 240-327536/186	23:58	87		102		100		100		102	
CCB 240-327536/187	00:03	91		103		101		104		105	
MB 240-327060/1-A	00:07	84		102		103		103		102	
LCS 240-327060/3-A	00:12	74		97		96		96		95	
240-95580-2	00:39	75		97		98		98		98	
240-95580-2	00:43	75		98		101		100		98	
240-95580-3	00:48	76		98		98		96		96	
CCV 240-327536/198	00:53	84		100		99		97		97	
CCB 240-327536/199	00:57	87		99		99		100		99	
240-95580-3	01:02	80		97		97		97		98	
240-95580-4	01:06	76		96		97		99		99	
240-95580-4	01:11	77		97		99		100		99	
CCV 240-327536/209	01:43	84		100		99		97		96	
CCB 240-327536/210	01:47	87		99		99		98		96	
CCVL 240-327536/211	01:52	89		100		100		98		98	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/18/2018 End Date: 05/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-327536/3 IC	10:04	96		98		99					
STD2 240-327536/4 IC	10:08	102		101		99					
STD3 240-327536/5 IC	10:13	96		100		96					
STD4 240-327536/6 IC	10:17	100		100		104					
ICV 240-327536/7	10:22	100		100		99					
ICB 240-327536/8	10:26	99		100		100					
ICVL 240-327536/9	10:31	95		99		99					
ICSA 240-327536/10	10:35	95		99		97					
ICSAB 240-327536/11	10:40	93		100		96					
ICSA 240-327536/144	20:49	108		109		100					
ICSAB 240-327536/145	20:53	111		114		101					
CCVL 240-327536/161	22:05	109		110		104					
CCV 240-327536/186	23:58	105		102		98					
CCB 240-327536/187	00:03	104		104		100					
MB 240-327060/1-A	00:07	104		100		102					
LCS 240-327060/3-A	00:12	99		97		94					
240-95580-2	00:39	102		98		97					
240-95580-2	00:43	101		98		98					
240-95580-3	00:48	95		97		94					
CCV 240-327536/198	00:53	101		98		95					
CCB 240-327536/199	00:57	100		97		96					
240-95580-3	01:02	103		99		95					
240-95580-4	01:06	104		100		98					
240-95580-4	01:11	104		101		99					
CCV 240-327536/209	01:43	99		96		95					
CCB 240-327536/210	01:47	93		94		94					
CCVL 240-327536/211	01:52	95		95		95					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/22/2018 End Date: 05/22/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328140/3 IC	10:55	97		99		99		100		99	
STD2 240-328140/4 IC	11:00	96		97		98		95		95	
STD3 240-328140/5 IC	11:04	98		97		98		96		94	
STD4 240-328140/6 IC	11:09	96		96		96		98		96	
ICV 240-328140/7	11:13	97		98		99		95		95	
ICB 240-328140/8	11:18	98		96		95		99		95	
ICVL 240-328140/9	11:22	99		98		98		101		98	
ICSA 240-328140/10	11:27	91		92		93		89		91	
ICSAB 240-328140/11	11:31	90		94		95		92		93	
CCV 240-328140/76	16:23	105		110		106		104		103	
CCB 240-328140/77	16:28	105		108		105		106		103	
MB 240-327060/1-A	16:37	96		103		100		102		101	
CCV 240-328140/86	17:08	103		108		105		102		101	
CCB 240-328140/87	17:12	104		106		104		107		103	
CCVL 240-328140/88	17:17	105		110		105		107		104	
240-95580-2	17:21	96		99		99		101		100	
240-95580-2	17:26	94		99		99		102		100	
240-95580-3	17:30	93		101		99		99		99	
240-95580-3	17:35	91		99		98		100		99	
240-95580-4	17:39	89		97		96		100		99	
240-95580-4	17:44	90		100		97		101		100	
CCV 240-328140/98	18:02	100		107		105		103		101	
CCB 240-328140/99	18:06	103		106		104		107		101	
CCVL 240-328140/105	18:33	102		105		103		106		104	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/22/2018 End Date: 05/22/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328140/3 IC	10:55	98		100		101					
STD2 240-328140/4 IC	11:00	97		98		96					
STD3 240-328140/5 IC	11:04	97		97		94					
STD4 240-328140/6 IC	11:09	96		96		98					
ICV 240-328140/7	11:13	95		97		96					
ICB 240-328140/8	11:18	94		94		96					
ICVL 240-328140/9	11:22	97		98		98					
ICSA 240-328140/10	11:27	95		96		92					
ICSAB 240-328140/11	11:31	96		98		93					
CCV 240-328140/76	16:23	103		103		96					
CCB 240-328140/77	16:28	101		101		98					
MB 240-327060/1-A	16:37	100		101		101					
CCV 240-328140/86	17:08	103		102		98					
CCB 240-328140/87	17:12	101		103		99					
CCVL 240-328140/88	17:17	101		103		100					
240-95580-2	17:21	99		99		97					
240-95580-2	17:26	101		100		97					
240-95580-3	17:30	98		101		94					
240-95580-3	17:35	99		100		94					
240-95580-4	17:39	100		103		96					
240-95580-4	17:44	101		104		98					
CCV 240-328140/98	18:02	101		101		96					
CCB 240-328140/99	18:06	101		101		97					
CCVL 240-328140/105	18:33	103		104		99					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/23/2018 End Date: 05/23/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328236/3 IC	11:04	97		98		99		101		100	
STD2 240-328236/4 IC	11:08	95		97		99		95		97	
STD3 240-328236/5 IC	11:13	97		98		99		95		97	
STD4 240-328236/6 IC	11:17	94		96		97		97		98	
ICV 240-328236/7	11:22	97		98		100		97		98	
ICB 240-328236/8	11:26	96		97		99		99		98	
ICVL 240-328236/9	11:31	98		101		102		102		101	
ICSA 240-328236/10	11:35	91		96		98		92		95	
ICSAB 240-328236/11	11:40	91		97		96		94		96	
CCV 240-328236/36	13:33	92		101		104		107		104	
CCB 240-328236/37	13:38	95		102		103		112		105	
LCS 240-327060/3-A	14:05	82		95		98		101		97	
CCV 240-328236/44	14:09	90		101		101		103		101	
CCB 240-328236/45	14:14	93		99		99		106		99	
CCVL 240-328236/46	14:18	93		99		101		106		102	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95314-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/23/2018 End Date: 05/23/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328236/3 IC	11:04	100		101		100					
STD2 240-328236/4 IC	11:08	99		99		97					
STD3 240-328236/5 IC	11:13	100		100		96					
STD4 240-328236/6 IC	11:17	101		100		99					
ICV 240-328236/7	11:22	100		99		98					
ICB 240-328236/8	11:26	100		100		98					
ICVL 240-328236/9	11:31	101		101		101					
ICSA 240-328236/10	11:35	100		100		95					
ICSAB 240-328236/11	11:40	101		102		96					
CCV 240-328236/36	13:33	106		108		99					
CCB 240-328236/37	13:38	103		105		102					
LCS 240-327060/3-A	14:05	102		103		97					
CCV 240-328236/44	14:09	104		105		99					
CCB 240-328236/45	14:14	102		100		100					
CCVL 240-328236/46	14:18	102		103		102					

VOA Calibration Calculations:

Initial Calibration 5/8/2018
Instrument A3UX16

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	25964	964138	20	1.0772	1.0772
1	54206	975392	20	1.1115	1.1115
10	580978	1049000	20	1.1077	1.1077
20	1175629	1052301	20	1.1172	1.1172
30	1823465	1057372	20	1.1497	1.1497
40	2366161	1001904	20	1.1808	1.1808
60	3673703	1069828	20	1.1446	1.1446
			Average	1.1270	1.127
			Standard Deviation	0.0339	
			RSD	0.0301	
			%RSD	3.0124	3.0

Continuing Calibration 05/22/2018@ 8:40
Instrument A3UX16

Benzene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	1104167	920421	20	1.1996	6.445	1.2	6.4

MSA
SDG 240-95314-1

SAMPLE IDENTIFICATION	MT-MW02S-051018
COMPOUND	Benzene
COMPOUND AREA	904982
INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	950706
AVERAGE RRF	1.127
VOLUME OF SAMPLE (ml)	5
VOLUME EXTRACT (ml)	5
INJECTION VOLUME (µl)	1

CONCENTRATION = 16.89 ug/L

SVOA Calibration Calculations:

Initial Calibration 5/11/2017
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
50	4776	131892	400	0.2897	0.28970
100	8590	125436	400	0.2739	0.27390
200	19462	133312	400	0.2920	0.29200
500	50964	144796	400	0.2816	0.28160
1000	101741	144194	400	0.2822	0.28220
1500	160478	153812	400	0.2782	0.27820
2000	268494	176943	400	0.3035	0.30350
2500	325380	167965	400	0.3100	0.31000
			Average	0.28888	0.2889
			Standard Deviation	0.0125	
			RSD	0.0434	
			%RSD	4.34355	4.3

Continuing Calibration 05/18/2018 @ 7:49
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1000	89232	148974	400	0.2396	-17.06791	0.2396	-17.1

MRC Groundwater
SDG 240-95314-1

SAMPLE IDENTIFICATION	MSA-MW-35S-051418
COMPOUND	1,4-Dioxane
COMPOUND AREA	6059
INTERNAL STANDARD AMOUNT (ng)	400
DILUTION FACTOR	1
INTERNAL STANDARD AREA	127468
AVERAGE RRF	0.2889
VOLUME OF SAMPLE	260
VOLUME OF EXTRACT	5
CONCENTRATION =	1.2656 ug/L

Calculation DRO	**Sample**		
	MT-MW01S-051018		
Target Analyte	C10-C32		
Analyte Response	74921828		
TPH Response	850533	ug/l	
Dilution Factor (DF)	1		
Weight Sample	0.26	L	
Final Volume	5	ml	
	on column amount	88.08809064	
		1694.00	ug/L

Sample Report

Sample Table

Sample Name	240-95494-j-5-a
Data File Name	206SMPL.d
Data Path Name	D:\Analytical Runs\I10051518A.b
Acq Date Time	2018-05-16T02:15:25-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

SAMPLE MT-MW02S-051018

TOTAL ARSENIC 3.2 UG/L

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	-0.183	-0.183	-157.22	100261	0.00	10000	
Be	9	45	2	NoGas	2.129	2.129	6.47	5285	0.04	2000	
B	11	45	2	NoGas	31.818	31.818	5.37	77561	0.04	300	
Na	23	45	1	He	22252.072	22252.072	2.33	9217039	0.24	500000	
Mg	24	45	1	He	6590.547	6590.547	2.48	1453415	0.45	500000	
Al	27	45	1	He	91.273	91.273	5.10	12097	0.75	200000	
K	39	45	1	He	1645.658	1645.658	2.10	471338	0.35	500000	
Ca	44	45	1	He	2843.949	2843.949	2.16	18011	15.79	500000	
Ti	47	45	1	He	0.442	0.442	36.31	34	1.29	2500	
V	51	45	1	He	0.817	0.817	10.25	1432	0.06	10000	
Cr	52	45	1	He	0.677	0.677	6.23	1407	0.05	10000	
Mn	55	45	1	He	826.299	826.299	1.62	1064142	0.08	10000	
Fe	56	45	1	He	107794.230	107794.230	2.34	161930185	0.07	200000	
Co	59	45	1	He	57.912	57.912	2.36	125988	0.05	5000	
Ni	60	103	1	He	47.579	47.579	0.67	24585	0.19	10000	
Cu	63	45	1	He	3.523	3.523	2.91	5062	0.07	10000	
Zn	66	45	1	He	27.246	27.246	2.88	8218	0.33	10000	
As	75	45	1	He	3.217	3.217	32.18	816	0.39	10000	
Se	78	45	1	He	0.800	0.800	31.53	89	0.90	10000	
Sr	88	103	1	He	35.723	35.723	2.24	53737	0.07	10000	
Mo	95	103	1	He	0.358	0.358	9.02	265	0.14	2000	
Ag	107	103	1	He	0.043	0.043	6.57	69	0.06	100	
Cd	111	115	1	He	0.058	0.058	33.48	22	0.27	4000	
Sn	118	115	1	He	-0.099	-0.099	-97.76	407	-0.02	2000	
Sb	123	115	1	He	0.094	0.094	19.48	143	0.07	200	
Ba	137	115	1	He	84.227	84.227	0.98	24084	0.35	10000	
W	182	159	1	He	1.024	1.024	89.17	1237	0.08	2500	
Tl	205	165	1	He	0.008	0.008	110.72	54	0.02	2000	
Pb	208	165	1	He	0.342	0.342	9.57	1580	0.02	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1272621	1.52	1574354	80.83	60	120	
Sc	45	1	He	443986	2.04	493745	89.92	60	120	
Sc	45	2	NoGas	3654299	2.15	4257843	85.83	60	120	
Rh	103	1	He	626294	1.10	750985	83.40	60	120	
In	115	1	He	378853	1.24	458147	82.69	60	120	
Tb	159	1	He	670954	1.40	800648	83.80	60	120	
Ho	165	1	He	603895	0.67	722500	83.58	60	120	
Bi	209	1	He	365564	0.72	429984	85.02	60	120	

TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 20, 2018**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / SVOC / GRO / DRO/ SELECT TOTAL AND DISSOLVED METALS**
MSA – GROUNDWATER MONITORING – FULL REVIEW SAMPLE DELIVERY GROUP (SDG) 240-95742-1

SAMPLES: 6 / Aqueous /
VOC, SVOC, GRO, DRO, Select Total and Dissolved Metals

MSA-MW-25S-051518	MSA-MW-25I-051518	MSA-MW-4-051518
MSA-MW20S-051618	MSA-MW20I-051618	MSA-MW20D-051618

1/Trip Blank/
VOC

TB-051518

OVERVIEW

The sample set for MSA Groundwater Monitoring, SDG 240-95742-1, consists of six (6) aqueous environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), gas range organics (C6-C10), diesel range organics (C10-C32) and select total and dissolved metals. The trip blank was analyzed for VOCs. Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on May 15 and 16, 2018, and analyzed by Test America. Analyses were conducted in accordance to SW-846 Methods 8260C, 8270D, 8015C, 6020A and 7470A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip/instrument blank results, ICP interference recoveries, surrogate spike recoveries, laboratory control sample results, matrix spike / matrix spike duplicate results, internal standard recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC initial calibration verification performed on 05/24/18 @ 14:59 on instrument A3UX12 had a percent difference (%D) that were greater than the 20% quality control limit for vinyl acetate. All samples were affected. The non-detected results for vinyl acetate were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration verification performed on 05/26/18 @ 11:37 on instrument A3UX12 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane and 1,1,2-trichlorotrifluoroethane. Samples TB-051518, MSA-MW-25S-051518 and MSA-MW-25I-051518 were affected. The non-detected results for the aforementioned compounds were qualified as estimated (UJ).

- The VOC continuing calibration verification performed on 05/27/18 @ 9:28 on instrument A3UX12 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane, 1,1,2-trichlorotrifluoroethane and tert-butyl alcohol. Samples MSA-MW-4-051518, MSA-MW-20S-051618, MSA-MW20I-051618 and MSA-MW-20D-051618 were affected. The non-detected results for the aforementioned compounds were qualified as estimated (UJ).

- The following VOC analytes were detected in the trip blank at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
2-Butanone	1.2 ug/L	< RL
Acetone	11 ug/L	> RL

The detected results reported below the reporting limit (RL) for acetone were qualified as non-detected, (U). Field blanks are not qualified for field blank contamination.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Nondetects were reported to the MDL.

A TIC search was performed for the compound chlorodifluoromethane. Because the compound was not calibrated, nondetected results were qualified as estimated, (UJ).

It was noted that the VOC LCS was not analyzed for the following compounds: 1,2,3-trimethylbenzene, 1,2-dibromoethane, diisopropyl ether, ethyl tert-butyl ether and tert-amyl methyl ether. LCS recoveries could not be evaluated. No validation action was taken.

The metals continuing calibration for beryllium was above the 110% quality control limit on 05/25/2018 @ 20:53. All samples except total and dissolved MSA-MW-20D-051618 were affected. No validation actions were required as all affected sample results were nondetects.

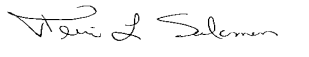
EXECUTIVE SUMMARY

Laboratory Performance Issues: Several initial and continuing calibration %Ds were noncompliant for the VOC fraction. Contaminants were detected in trip blank.

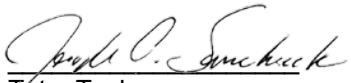
Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due

to preservation noncompliance. Detected results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.



Tetra Tech
Terri Solomon
Environmental Scientist/Data Validator



Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.38	J	P	0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	U		0.34	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		2.8	U	B	3	U	B	1.8	U	B
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE	0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE	0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE	0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE	0.33	J	P	0.27	U		0.27	U	
1,1-DICHLOROPROPENE	0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE	0.35	U		0.35	U		0.35	U	
1,2,3-TRICHLOROPROPANE	0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE	0.22	U		0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE	0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE	0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE	0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE	0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE	0.3	U		0.74	J	P	0.3	U	
1,2-DICHLOROPROPANE	0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE	0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE	0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE	0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE	0.34	U		0.34	U		0.34	U	
2-BUTANONE	1	U		1	U		1.2	J	P
2-CHLOROETHYL VINYL ETHER	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE	0.28	U		0.28	U		0.28	U	
2-HEXANONE	1.2	U		1.2	U		1.2	U	
4-CHLOROTOLUENE	0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE	0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE	0.71	U		0.71	U		0.71	U	
ACETONE	1.8	U		2.5	U	B	11		
BENZENE	0.28	U		0.54	J	P	0.28	U	
BROMOBENZENE	0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE	0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE	0.3	U		0.3	U		0.3	U	
BROMOFORM	0.43	U		0.43	U		0.43	U	
BROMOMETHANE	0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.62	J	P	0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		2			0.3	U		5.8			0.34	J	P
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	U		0.36	U		0.36	U		0.36	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		0.45	U		0.45	U		0.45	U	
O-XYLENE		0.28	U		0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	UJ	C	4.6	UJ	C	4.6	UJ	C	4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		17			0.33	U		0.88	J	P	0.33	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE	0.35	U		0.35	U		0.35	U	
CHLOROBENZENE	0.32	U		1			0.32	U	
CHLORODIBROMOMETHANE	0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE	0.41	U		0.41	U		0.41	U	
CHLOROFORM	0.31	U		0.31	U		0.31	U	
CHLOROMETHANE	0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE	58			1.3			0.3	U	
CIS-1,3-DICHLOROPROPENE	0.26	U		0.26	U		0.26	U	
DIBROMOMETHANE	0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER	0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER	0.35	U		0.35	U		0.35	U	
ETHYLBENZENE	0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE	0.36	U		0.36	U		0.36	U	
ISOPROPYLBENZENE	0.21	U		0.21	U		0.21	U	
M+P-XYLENES	0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE	0.53	U		0.53	U		0.53	U	
NAPHTHALENE	0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE	0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE	0.45	U		0.45	U		0.45	U	
O-XYLENE	0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE	0.27	U		0.27	U		0.27	U	
STYRENE	0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER	0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE	0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL	4.6	U		4.6	UJ	C	4.6	U	
TETRACHLOROETHENE	0.3	U		0.3	U		0.3	U	
TOLUENE	0.23	U		0.23	U		0.23	U	
TOTAL XYLENES	0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE	2			0.84	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE	0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE	0.39	J	P	0.33	U		0.33	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	UJ	C	0.28	UJ	C	0.28	UJ	C	0.28	UJ	C
VINYL CHLORIDE		0.45	U		0.45	U		2.7			0.45	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	UJ	C	0.28	UJ	C	0.28	UJ	C
VINYL CHLORIDE		17			2			0.45	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OS	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.5			0.36	U		0.37	U		0.37	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4		
FRACTION: OS	SAMP_DATE	5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		12		

PROJ_NO: 08424	NSAMPLE	MSA-MW-20S-051618			MSA-MW-25S-051518			MSA-MW-4-051518		
SDG: 240-95742-1	LAB_ID	240-95742-5			240-95742-2			240-95742-4		
FRACTION: PET	SAMP_DATE	5/16/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U		55	J	P	49	U	
TPH (C10-C32)		800			220	U		850		

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: M	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.79	J	P	0.85	J	P	0.69	J	P
ARSENIC		0.75	U		0.75	U		0.75	U		12		
BARIUM		110			46			46			71		
BERYLLIUM		1.4			0.31	U		0.31	U		0.31	U	
CADMIUM		3.7			0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		6		
COBALT		120			0.36	J	P	0.45	J	P	1.5		
COPPER		23			6.5			8.9			7.1		
IRON		47	J	P	310			950			2400		
LEAD		0.45	U		0.47	J	P	0.45	U		0.88	J	P
MANGANESE		1500			110			130			47		
MERCURY		1.1			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		2	J	P	2.2	J	P	2	J	P
NICKEL		48			1.5	J	P	1.7	J	P	14		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		2.2	J	P	2	J	P	6.8		

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4		
FRACTION: M	SAMP_DATE	5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.3	J	P	0.76	J	P
ARSENIC		2.4	J	P	0.75	U	
BARIUM		68			46		
BERYLLIUM		0.31	U		0.31	U	
CADMIUM		0.35	J	P	0.32	J	P
CHROMIUM		1.8	J	P	1.1	J	P
COBALT		3.7			1.9		
COPPER		7.6			2.9		
IRON		730			4600		
LEAD		0.45	U		0.76	J	P
MANGANESE		170			1100		
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	5.3		
NICKEL		13			7.8		
SELENIUM		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U	
VANADIUM		1	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: MF	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.7	J	P	0.99	J	P	0.67	J	P
ARSENIC		0.75	U		0.75	U		0.75	U		13		
BARIUM		110			45			48			68		
BERYLLIUM		1.1			0.31	U		0.31	U		0.31	U	
CADMIUM		3.4			0.21	U		0.21	U		0.21	U	
CHROMIUM		0.98	U		0.98	U		0.98	U		4.5		
COBALT		120			0.29	J	P	0.38	J	P	1.4		
COPPER		24			5.2			3.9			3.4		
IRON		47	U		47	U		620			2000		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MANGANESE		1400			100			120			40		
MERCURY		0.37			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.9	J	P	2.2	J	P	2.1	J	P
NICKEL		47			1.5	U		1.7	J	P	14		
SELENIUM		0.89	U		0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		1.9	J	P	1.2	J	P	6.3		

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4		
FRACTION: MF	SAMP_DATE	5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.69	J	P	0.57	U	
ARSENIC		4.4	J	P	0.75	U	
BARIUM		68			44		
BERYLLIUM		0.31	U		0.31	U	
CADMIUM		0.31	J	P	0.21	U	
CHROMIUM		1.5	J	P	1	J	P
COBALT		5.3			1.8		
COPPER		5			1.7	U	
IRON		1200			4600		
LEAD		0.45	U		0.45	U	
MANGANESE		240			1100		
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		5.3		
NICKEL		13			6.5		
SELENIUM		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U	
VANADIUM		1.1	J	P	0.82	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: TB-051518 | Lab Sample ID: 240-95742-1

Matrix: Water | Lab File ID: U1263949.D

Analysis Method: 8260C | Date Collected: 05/15/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 20:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.2	J	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	11		10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: TB-051518 | Lab Sample ID: 240-95742-1

Matrix: Water | Lab File ID: U1263949.D

Analysis Method: 8260C | Date Collected: 05/15/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 20:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: TB-051518 Lab Sample ID: 240-95742-1

Matrix: Water Lab File ID: U1263949.D

Analysis Method: 8260C Date Collected: 05/15/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2018 20:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328734 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		73-120
1868-53-7	Dibromofluoromethane (Surr)	112		69-124
460-00-4	4-Bromofluorobenzene (Surr)	100		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: TB-051518 | Lab Sample ID: 240-95742-1

Matrix: Water | Lab File ID: U1263949.D

Analysis Method: 8260C | Date Collected: 05/15/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 20:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: TB-051518 | Lab Sample ID: 240-95742-1

Matrix: Water | Lab File ID: U1263949.D

Analysis Method: 8260C | Date Collected: 05/15/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 20:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: U1263950.D

Analysis Method: 8260C | Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.33	J	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: U1263950.D

Analysis Method: 8260C | Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	58		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	2.0		1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.39	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	17		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 Lab Sample ID: 240-95742-2

Matrix: Water Lab File ID: U1263950.D

Analysis Method: 8260C Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2018 21:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328734 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	109		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: U1263950.D

Analysis Method: 8260C | Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: U1263950.D

Analysis Method: 8260C | Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 | Lab Sample ID: 240-95742-3

Matrix: Water | Lab File ID: U1263951.D

Analysis Method: 8260C | Date Collected: 05/15/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 | Lab Sample ID: 240-95742-3

Matrix: Water | Lab File ID: U1263951.D

Analysis Method: 8260C | Date Collected: 05/15/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.34	J	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 Lab Sample ID: 240-95742-3

Matrix: Water Lab File ID: U1263951.D

Analysis Method: 8260C Date Collected: 05/15/2018 11:29

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2018 21:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328734 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	116		73-120
1868-53-7	Dibromofluoromethane (Surr)	112		69-124
460-00-4	4-Bromofluorobenzene (Surr)	104		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 | Lab Sample ID: 240-95742-3

Matrix: Water | Lab File ID: U1263951.D

Analysis Method: 8260C | Date Collected: 05/15/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 | Lab Sample ID: 240-95742-3

Matrix: Water | Lab File ID: U1263951.D

Analysis Method: 8260C | Date Collected: 05/15/2018 11:29

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 21:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: U1263970.D

Analysis Method: 8260C | Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.74	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.5	J	10	1.8
71-43-2	Benzene	0.54	J	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	1.0		1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: U1263970.D

Analysis Method: 8260C | Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.84	J	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	2.0		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 Lab Sample ID: 240-95742-4

Matrix: Water Lab File ID: U1263970.D

Analysis Method: 8260C Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 15:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	110		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 Lab Sample ID: 240-95742-4

Matrix: Water Lab File ID: U1263970.D

Analysis Method: 8260C Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 15:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: U1263970.D

Analysis Method: 8260C | Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: U1263971.D

Analysis Method: 8260C | Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	3.0	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.62	J	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: U1263971.D

Analysis Method: 8260C | Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	5.8		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.88	J	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	2.7		1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 Lab Sample ID: 240-95742-5

Matrix: Water Lab File ID: U1263971.D

Analysis Method: 8260C Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 15:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: U1263971.D

Analysis Method: 8260C | Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: U1263971.D

Analysis Method: 8260C | Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 | Lab Sample ID: 240-95742-6

Matrix: Water | Lab File ID: U1263972.D

Analysis Method: 8260C | Date Collected: 05/16/2018 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	2.8	J	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 | Lab Sample ID: 240-95742-6

Matrix: Water | Lab File ID: U1263972.D

Analysis Method: 8260C | Date Collected: 05/16/2018 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 Lab Sample ID: 240-95742-6

Matrix: Water Lab File ID: U1263972.D

Analysis Method: 8260C Date Collected: 05/16/2018 12:10

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 15:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	114		73-120
1868-53-7	Dibromofluoromethane (Surr)	115		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 | Lab Sample ID: 240-95742-6

Matrix: Water | Lab File ID: U1263972.D

Analysis Method: 8260C | Date Collected: 05/16/2018 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 | Lab Sample ID: 240-95742-6

Matrix: Water | Lab File ID: U1263972.D

Analysis Method: 8260C | Date Collected: 05/16/2018 12:10

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 15:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 | Lab Sample ID: 240-95742-7

Matrix: Water | Lab File ID: U1263973.D

Analysis Method: 8260C | Date Collected: 05/16/2018 14:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 16:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.38	J	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 | Lab Sample ID: 240-95742-7

Matrix: Water | Lab File ID: U1263973.D

Analysis Method: 8260C | Date Collected: 05/16/2018 14:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 16:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	2.0		1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	17		1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 Lab Sample ID: 240-95742-7

Matrix: Water Lab File ID: U1263973.D

Analysis Method: 8260C Date Collected: 05/16/2018 14:53

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 16:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		73-120
1868-53-7	Dibromofluoromethane (Surr)	111		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 | Lab Sample ID: 240-95742-7

Matrix: Water | Lab File ID: U1263973.D

Analysis Method: 8260C | Date Collected: 05/16/2018 14:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 16:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 | Lab Sample ID: 240-95742-7

Matrix: Water | Lab File ID: U1263973.D

Analysis Method: 8260C | Date Collected: 05/16/2018 14:53

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 16:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: 80524009.D

Analysis Method: 8270D | Date Collected: 05/15/2018 10:13

Extract. Method: 3510C | Date Extracted: 05/21/2018 08:02

Sample wt/vol: 270(mL) | Date Analyzed: 05/24/2018 09:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	56		17-120
321-60-8	2-Fluorobiphenyl (Surr)	60		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25I-051518 | Lab Sample ID: 240-95742-3

Matrix: Water | Lab File ID: 80524010.D

Analysis Method: 8270D | Date Collected: 05/15/2018 11:29

Extract. Method: 3510C | Date Extracted: 05/21/2018 08:02

Sample wt/vol: 260(mL) | Date Analyzed: 05/24/2018 10:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		28-128
4165-62-2	Phenol-d5 (Surr)	50		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	62		17-120
321-60-8	2-Fluorobiphenyl (Surr)	67		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	85		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: 80524011.D

Analysis Method: 8270D | Date Collected: 05/15/2018 15:21

Extract. Method: 3510C | Date Extracted: 05/21/2018 08:02

Sample wt/vol: 270(mL) | Date Analyzed: 05/24/2018 10:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	12		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	61		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	64		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	93		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: 80524012.D

Analysis Method: 8270D | Date Collected: 05/16/2018 11:02

Extract. Method: 3510C | Date Extracted: 05/22/2018 07:53

Sample wt/vol: 260(mL) | Date Analyzed: 05/24/2018 11:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	78		35-120
367-12-4	2-Fluorophenol (Surr)	69		17-120
321-60-8	2-Fluorobiphenyl (Surr)	74		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	94		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20I-051618 | Lab Sample ID: 240-95742-6

Matrix: Water | Lab File ID: 80524013.D

Analysis Method: 8270D | Date Collected: 05/16/2018 12:10

Extract. Method: 3510C | Date Extracted: 05/22/2018 07:53

Sample wt/vol: 270(mL) | Date Analyzed: 05/24/2018 11:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	67		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	87		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20D-051618 | Lab Sample ID: 240-95742-7

Matrix: Water | Lab File ID: 80524014.D

Analysis Method: 8270D | Date Collected: 05/16/2018 14:53

Extract. Method: 3510C | Date Extracted: 05/22/2018 07:53

Sample wt/vol: 260(mL) | Date Analyzed: 05/24/2018 11:53

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.5		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		28-128
4165-62-2	Phenol-d5 (Surr)	63		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	76		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	75		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	85		33-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: A0052431.D

Analysis Method: 8015C | Date Collected: 05/15/2018 10:13

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2018 23:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	55	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	79		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: A0052432.D

Analysis Method: 8015C | Date Collected: 05/15/2018 15:21

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 00:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: A0052433.D

Analysis Method: 8015C | Date Collected: 05/16/2018 11:02

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 00:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328284 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-25S-051518 | Lab Sample ID: 240-95742-2

Matrix: Water | Lab File ID: R052310.D

Analysis Method: 8015C | Date Collected: 05/15/2018 10:13

Extraction Method: 3520C | Date Extracted: 05/22/2018 07:46

Sample wt/vol: 260(mL) | Date Analyzed: 05/23/2018 21:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328244 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	220	U	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	72		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-4-051518 | Lab Sample ID: 240-95742-4

Matrix: Water | Lab File ID: R052311.D

Analysis Method: 8015C | Date Collected: 05/15/2018 15:21

Extraction Method: 3520C | Date Extracted: 05/22/2018 07:46

Sample wt/vol: 260(mL) | Date Analyzed: 05/23/2018 21:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328244 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	850		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	68		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: MSA-MW-20S-051618 | Lab Sample ID: 240-95742-5

Matrix: Water | Lab File ID: R052312.D

Analysis Method: 8015C | Date Collected: 05/16/2018 11:02

Extraction Method: 3520C | Date Extracted: 05/22/2018 07:46

Sample wt/vol: 280(mL) | Date Analyzed: 05/23/2018 22:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328244 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	800		450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	74		37-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-25S-051518 Lab Sample ID: 240-95742-2

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 10:13

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-25S-051518 Lab Sample ID: 240-95742-2

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 10:13

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.3	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	2.4	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	68	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.35	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	3.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.8	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	7.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	730	100	47	ug/L			1	6020A
7439-96-5	Manganese	170	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	13	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-25S-051518 Lab Sample ID: 240-95742-2

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 10:13

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.69	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	4.4	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	68	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.31	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	5.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.5	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	5.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	1200	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	240	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	13	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.1	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-25I-051518 Lab Sample ID: 240-95742-3

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 11:29

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-25I-051518 Lab Sample ID: 240-95742-3

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 11:29

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.69	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	12	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	71	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.5	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	6.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	7.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	2400	100	47	ug/L			1	6020A
7439-96-5	Manganese	47	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.0	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	14	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.88	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	6.8	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-25I-051518 Lab Sample ID: 240-95742-3

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 11:29

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.67	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	13	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	68	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	3.4	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	2000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	40	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	2.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	14	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	6.3	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-4-051518 Lab Sample ID: 240-95742-4

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 15:21

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-4-051518 Lab Sample ID: 240-95742-4

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 15:21

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.76	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	46	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.32	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	1.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	2.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	4600	100	47	ug/L			1	6020A
7439-96-5	Manganese	1100	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	5.3	5.0	1.1	ug/L			1	6020A
7440-02-0	Nickel	7.8	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.76	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-4-051518 Lab Sample ID: 240-95742-4

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/15/2018 15:21

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.0	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	4600	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1100	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	5.3	5.0	1.1	ug/L			1	6020A
7440-02-0	Dissolved Nickel	6.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-20S-051618 Lab Sample ID: 240-95742-5

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 11:02

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-20S-051618 Lab Sample ID: 240-95742-5

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 11:02

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.85	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	46	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.45	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	8.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	950	100	47	ug/L			1	6020A
7439-96-5	Manganese	130	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1.7	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-20S-051618 Lab Sample ID: 240-95742-5

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 11:02

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.99	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	48	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.38	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	3.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	620	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	120	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	2.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1.7	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-20I-051618 Lab Sample ID: 240-95742-6

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 12:10

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-20I-051618 Lab Sample ID: 240-95742-6

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 12:10

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.79	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	46	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.36	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	6.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	310	100	47	ug/L			1	6020A
7439-96-5	Manganese	110	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.0	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Lead	0.47	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-20I-051618 Lab Sample ID: 240-95742-6

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 12:10

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.70	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	45	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.29	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	5.2	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	100	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.9	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.9	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-20D-051618 Lab Sample ID: 240-95742-7

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 14:53

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	1.1	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-20D-051618 Lab Sample ID: 240-95742-7

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 14:53

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	110	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.4	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	3.7	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	120	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	23	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	J		1	6020A
7439-96-5	Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	48	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-20D-051618 Lab Sample ID: 240-95742-7

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG ID.:

Matrix: Water Date Sampled: 05/16/2018 14:53

Reporting Basis: WET Date Received: 05/17/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	110	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	3.4	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	120	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	24	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	47	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U	^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.37	0.20	0.13	ug/L			1	7470A

Appendix C

Support Documentation

1.81.9 3.4/3.5

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s): 1805	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	BALTIMORE	
City: Germantown	TAT Requested (days): standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: 24011891 112IC08424			
Site: MSA Dumped.	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas (8015C)	Das (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-051518	5/15/18	—	G	Water			2	-	-	-	-	-	-		
MSA-MW-25S-051518		1013					3	2	2	2	1	1	-		
MSA-MW-25I-051518		1129					3	-	-	2	1	1	-		
MSA-MW-4-051518		1521					3	2	2	2	1	1	-		
MSA-MW-20S-051618	5/16/18	1102					3	2	2	2	1	1	-		
MSA-MW-20I-051618		1210					3	-	-	2	1	1	1		
MSA-MW-20D-051618		1453					3	-	-	2	1	1	1		

240-95742 Chain of Custody

180325

BALTIMORE

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: Walt Pryor	Date/Time: 5/16/18 1555	Company: TtEnk	Received by:	Date/Time: 5/16/18 1555	Company: TtA		
Relinquished by:	Date/Time: 5/16/18 16:06	Company:	Received by: GDP	Date/Time: 5/17/18 945	Company: TtA		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:		

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018 - Dump Rd.

Report Number: 240-95742-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/17/2018 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9º C and 3.5º C.

Perchlorates are reported in job 240-95742-2. The TestAmerica Sacramento laboratory is running behind due to their back log.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-051518 (240-95742-1), MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/26/2018 and 05/27/2018.

The continuing calibration verification (CCV) analyzed in batch 240-328734 was outside the method criteria for the following analyte(s): Dichlorodi fluoromethane and 1,1,2-Trichloro-1,2,2-trifluoroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-051518 (240-95742-1), MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3) and (CCVIS 240-328734/4)

The following samples were received preserved with hydrochloric acid: TB-051518 (240-95742-1), MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7).. The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The continuing calibration verification (CCV) analyzed in batch 240-328770 was outside the method criteria for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane and Dichlorodi fluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated. MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6), MSA-MW-20D-051618 (240-95742-7) and (CCVIS 240-328770/4)

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/21/2018

and 05/22/2018 and analyzed on 05/24/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-327719.

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

GASOLINE RANGE ORGANICS (GRO)
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-4-051518 (240-95742-4) and MSA-MW-20S-051618 (240-95742-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 05/24/2018 and 05/25/2018.

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

DIESEL RANGE ORGANICS (DRO)
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-4-051518 (240-95742-4) and MSA-MW-20S-051618 (240-95742-5) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 05/22/2018 and analyzed on 05/23/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-327915.

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

DISSOLVED METALS (ICPMS)
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 05/18/2018 and analyzed on 05/25/2018 and 05/27/2018.

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

TOTAL RECOVERABLE METALS (ICPMS)
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/18/2018 and analyzed on 05/25/2018 and 05/27/2018.

The continuing calibration verification (CCV) associated with batch 240-328800 recovered above the upper control limit for Beryllium. The samples associated with this CCV were below the requested reporting limit for the affected analyte; therefore, the data have been reported. The following samples are impacted: MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5) and MSA-MW-20I-051618 (240-95742-6).

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

DISSOLVED MERCURY (CVAA)
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/18/2018 and analyzed on 05/21/2018.

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

TOTAL MERCURY
Samples MSA-MW-25S-051518 (240-95742-2), MSA-MW-25I-051518 (240-95742-3), MSA-MW-4-051518 (240-95742-4), MSA-MW-20S-051618 (240-95742-5), MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/18/2018 and analyzed on 05/21/2018.

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-95742-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-95742-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-95742-1	TB-051518	Water	05/15/18 00:00	05/17/18 09:45
240-95742-2	MSA-MW-25S-051518	Water	05/15/18 10:13	05/17/18 09:45
240-95742-3	MSA-MW-25I-051518	Water	05/15/18 11:29	05/17/18 09:45
240-95742-4	MSA-MW-4-051518	Water	05/15/18 15:21	05/17/18 09:45
240-95742-5	MSA-MW-20S-051618	Water	05/16/18 11:02	05/17/18 09:45
240-95742-6	MSA-MW-20I-051618	Water	05/16/18 12:10	05/17/18 09:45
240-95742-7	MSA-MW-20D-051618	Water	05/16/18 14:53	05/17/18 09:45

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-051518	240-95742-1	112	105	115	100
MSA-MW-25S-051518	240-95742-2	109	103	109	96
MSA-MW-25I-051518	240-95742-3	112	106	116	104
MSA-MW-4-051518	240-95742-4	110	104	110	98
MSA-MW-20S-051618	240-95742-5	105	98	107	94
MSA-MW-20I-051618	240-95742-6	115	107	114	101
MSA-MW-20D-051618	240-95742-7	111	109	115	107
	MB 240-328734/9	111	109	115	107
	MB 240-328770/9	119	115	116	106
	LCS 240-328734/5	113	108	115	111
	LCS 240-328770/5	111	100	107	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1263926.D

Lab ID: LCS 240-328734/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	22.8	114	73-136	
1,1,1-Trichloroethane	20.0	22.4	112	64-147	
1,1,2,2-Tetrachloroethane	20.0	21.0	105	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	26.5	133	65-144	
1,1-Dichloroethane	20.0	23.5	117	74-120	
1,1-Dichloroethene	20.0	23.3	116	65-127	
1,1-Dichloropropene	20.0	22.2	111	80-122	
1,2,3-Trichlorobenzene	20.0	22.9	114	31-144	
1,2,3-Trichloropropane	20.0	21.5	107	53-134	
1,2,4-Trichlorobenzene	20.0	23.1	115	34-141	
1,2,4-Trimethylbenzene	20.0	22.3	111	80-120	
1,2-Dibromo-3-Chloropropane	20.0	21.3	106	50-130	
1,2-Dichlorobenzene	20.0	21.3	106	80-120	
1,2-Dichloroethane	20.0	20.3	101	68-133	
1,2-Dichloropropane	20.0	22.2	111	78-127	
1,3-Dichlorobenzene	20.0	21.2	106	80-120	
1,3-Dichloropropane	20.0	21.1	106	71-124	
1,4-Dichlorobenzene	20.0	21.5	108	80-120	
2,2-Dichloropropane	20.0	21.8	109	32-178	
2-Butanone (MEK)	40.0	46.5	116	43-149	
2-Chloroethyl vinyl ether	20.0	20.5	102	58-123	
2-Chlorotoluene	20.0	22.7	114	80-120	
2-Hexanone	40.0	41.5	104	28-169	
4-Chlorotoluene	20.0	22.0	110	79-120	
4-Isopropyltoluene	20.0	23.1	115	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	40.5	101	53-144	
Acetone	40.0	44.0	110	35-131	
Benzene	20.0	21.3	106	79-120	
Bromobenzene	20.0	21.4	107	73-120	
Bromoform	20.0	22.6	113	55-145	
Bromomethane	20.0	20.7	103	17-158	
Carbon disulfide	20.0	22.6	113	49-141	
Carbon tetrachloride	20.0	23.1	115	55-171	
Chlorobenzene	20.0	21.9	109	80-120	
Chlorodibromomethane	20.0	22.4	112	64-129	
Chloroethane	20.0	21.1	106	10-149	
Chloroform	20.0	22.7	114	80-120	
Chloromethane	20.0	21.1	105	59-124	
cis-1,2-Dichloroethene	20.0	22.7	114	77-120	
cis-1,3-Dichloropropene	20.0	21.7	108	75-120	
Dibromomethane	20.0	20.6	103	80-120	
Bromochloromethane	20.0	21.4	107	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1263926.D

Lab ID: LCS 240-328734/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	25.8	129	42-141	
Bromodichloromethane	20.0	22.1	110	79-125	
tert-Butyl alcohol	200	240	120	52-136	
Ethylbenzene	20.0	21.7	109	80-120	
Hexachlorobutadiene	20.0	23.1	116	36-146	
Isopropylbenzene	20.0	22.7	114	80-128	
Methyl tert-butyl ether	20.0	21.4	107	73-120	
Methylene Chloride	20.0	21.4	107	64-140	
m-Xylene & p-Xylene	20.0	22.3	112	80-120	
Naphthalene	20.0	22.7	114	31-127	
n-Butylbenzene	20.0	22.6	113	60-137	
N-Propylbenzene	20.0	22.0	110	76-120	
o-Xylene	20.0	22.2	111	80-120	
sec-Butylbenzene	20.0	22.3	111	76-124	
Styrene	20.0	22.5	113	80-121	
Tetrachloroethene	20.0	22.0	110	80-122	
Toluene	20.0	22.0	110	78-120	
trans-1,2-Dichloroethene	20.0	23.0	115	74-124	
trans-1,3-Dichloropropene	20.0	21.1	106	67-120	
Trichloroethene	20.0	21.7	108	76-124	
Trichlorofluoromethane	20.0	23.7	119	27-176	
Vinyl acetate	20.0	23.8	119	42-141	
Vinyl chloride	20.0	21.7	109	65-124	
Xylenes, Total	40.0	44.5	111	80-120	
tert-Butylbenzene	20.0	22.1	111	79-120	
1,2-Dibromoethane	20.0	22.1	110	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1263957.D

Lab ID: LCS 240-328770/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.9	99	73-136	
1,1,1-Trichloroethane	20.0	20.8	104	64-147	
1,1,2,2-Tetrachloroethane	20.0	17.9	90	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	24.8	124	65-144	
1,1-Dichloroethane	20.0	21.4	107	74-120	
1,1-Dichloroethene	20.0	21.5	108	65-127	
1,1-Dichloropropene	20.0	20.0	100	80-122	
1,2,3-Trichlorobenzene	20.0	19.4	97	31-144	
1,2,3-Trichloropropane	20.0	17.6	88	53-134	
1,2,4-Trichlorobenzene	20.0	19.5	97	34-141	
1,2,4-Trimethylbenzene	20.0	19.1	95	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.2	91	50-130	
1,2-Dichlorobenzene	20.0	19.1	95	80-120	
1,2-Dichloroethane	20.0	18.2	91	68-133	
1,2-Dichloropropane	20.0	19.6	98	78-127	
1,3-Dichlorobenzene	20.0	18.2	91	80-120	
1,3-Dichloropropane	20.0	18.0	90	71-124	
1,4-Dichlorobenzene	20.0	18.9	94	80-120	
2,2-Dichloropropane	20.0	18.9	95	32-178	
2-Butanone (MEK)	40.0	41.3	103	43-149	
2-Chloroethyl vinyl ether	20.0	18.8	94	58-123	
2-Chlorotoluene	20.0	19.5	98	80-120	
2-Hexanone	40.0	35.4	89	28-169	
4-Chlorotoluene	20.0	19.4	97	79-120	
4-Isopropyltoluene	20.0	19.8	99	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	34.8	87	53-144	
Acetone	40.0	43.1	108	35-131	
Benzene	20.0	19.7	99	79-120	
Bromobenzene	20.0	18.8	94	73-120	
Bromoform	20.0	19.6	98	55-145	
Bromomethane	20.0	21.3	106	17-158	
Carbon disulfide	20.0	21.3	106	49-141	
Carbon tetrachloride	20.0	20.9	105	55-171	
Chlorobenzene	20.0	19.5	97	80-120	
Chlorodibromomethane	20.0	19.9	100	64-129	
Chloroethane	20.0	21.0	105	10-149	
Chloroform	20.0	20.7	103	80-120	
Chloromethane	20.0	20.9	105	59-124	
cis-1,2-Dichloroethene	20.0	21.2	106	77-120	
cis-1,3-Dichloropropene	20.0	19.5	98	75-120	
Dibromomethane	20.0	18.6	93	80-120	
Bromochloromethane	20.0	18.8	94	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1263957.D

Lab ID: LCS 240-328770/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	24.9	124	42-141	
Bromodichloromethane	20.0	19.8	99	79-125	
tert-Butyl alcohol	200	258	129	52-136	
Ethylbenzene	20.0	19.1	96	80-120	
Hexachlorobutadiene	20.0	19.8	99	36-146	
Isopropylbenzene	20.0	19.9	100	80-128	
Methyl tert-butyl ether	20.0	20.1	101	73-120	
Methylene Chloride	20.0	20.8	104	64-140	
m-Xylene & p-Xylene	20.0	19.3	96	80-120	
Naphthalene	20.0	19.0	95	31-127	
n-Butylbenzene	20.0	19.2	96	60-137	
N-Propylbenzene	20.0	19.1	95	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	19.4	97	76-124	
Styrene	20.0	19.8	99	80-121	
Tetrachloroethene	20.0	19.1	95	80-122	
Toluene	20.0	19.3	97	78-120	
trans-1,2-Dichloroethene	20.0	21.3	107	74-124	
trans-1,3-Dichloropropene	20.0	18.3	92	67-120	
Trichloroethene	20.0	20.1	101	76-124	
Trichlorofluoromethane	20.0	24.0	120	27-176	
Vinyl acetate	20.0	21.3	107	42-141	
Vinyl chloride	20.0	21.4	107	65-124	
Xylenes, Total	40.0	38.9	97	80-120	
tert-Butylbenzene	20.0	19.2	96	79-120	
1,2-Dibromoethane	20.0	18.4	92	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: U1263930.D Lab Sample ID: MB 240-328734/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 05/26/2018 13:33

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328734/5	U1263926.D	05/26/2018 12:00
TB-051518	240-95742-1	U1263949.D	05/26/2018 20:56
MSA-MW-25S-051518	240-95742-2	U1263950.D	05/26/2018 21:19
MSA-MW-25I-051518	240-95742-3	U1263951.D	05/26/2018 21:42

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328734/9

Matrix: Water | Lab File ID: U1263930.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 13:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328734/9

Matrix: Water | Lab File ID: U1263930.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 13:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328734/9

Matrix: Water Lab File ID: U1263930.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2018 13:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328734 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		73-120
1868-53-7	Dibromofluoromethane (Surr)	111		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328734/9

Matrix: Water Lab File ID: U1263930.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2018 13:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328734 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328734/9

Matrix: Water | Lab File ID: U1263930.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 13:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328734 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: U1263961.D Lab Sample ID: MB 240-328770/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 05/27/2018 11:24

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328770/5	U1263957.D	05/27/2018 09:52
MSA-MW-4-051518	240-95742-4	U1263970.D	05/27/2018 15:06
MSA-MW-20S-051618	240-95742-5	U1263971.D	05/27/2018 15:29
MSA-MW-20I-051618	240-95742-6	U1263972.D	05/27/2018 15:52
MSA-MW-20D-051618	240-95742-7	U1263973.D	05/27/2018 16:16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328770/9

Matrix: Water | Lab File ID: U1263961.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 11:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.46	U	1.0	0.46
71-55-6	1,1,1-Trichloroethane	0.23	U	1.0	0.23
79-34-5	1,1,2,2-Tetrachloroethane	0.32	U	1.0	0.32
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.25	U	1.0	0.25
75-35-4	1,1-Dichloroethene	0.27	U	1.0	0.27
563-58-6	1,1-Dichloropropene	0.28	U	1.0	0.28
87-61-6	1,2,3-Trichlorobenzene	0.35	U	1.0	0.35
96-18-4	1,2,3-Trichloropropane	0.54	U	1.0	0.54
526-73-8	1,2,3-Trimethylbenzene	0.22	U	5.0	0.22
120-82-1	1,2,4-Trichlorobenzene	0.27	U	1.0	0.27
95-63-6	1,2,4-Trimethylbenzene	0.24	U	1.0	0.24
96-12-8	1,2-Dibromo-3-Chloropropane	0.47	U	2.0	0.47
95-50-1	1,2-Dichlorobenzene	0.26	U	1.0	0.26
107-06-2	1,2-Dichloroethane	0.30	U	1.0	0.30
78-87-5	1,2-Dichloropropane	0.30	U	1.0	0.30
541-73-1	1,3-Dichlorobenzene	0.32	U	1.0	0.32
142-28-9	1,3-Dichloropropane	0.29	U	1.0	0.29
106-46-7	1,4-Dichlorobenzene	0.23	U	1.0	0.23
594-20-7	2,2-Dichloropropane	0.34	U	1.0	0.34
78-93-3	2-Butanone (MEK)	1.0	U	10	1.0
110-75-8	2-Chloroethyl vinyl ether	0.65	U	10	0.65
95-49-8	2-Chlorotoluene	0.28	U	1.0	0.28
591-78-6	2-Hexanone	1.2	U	10	1.2
106-43-4	4-Chlorotoluene	0.23	U	1.0	0.23
99-87-6	4-Isopropyltoluene	0.29	U	1.0	0.29
108-10-1	4-Methyl-2-pentanone (MIBK)	0.71	U	10	0.71
67-64-1	Acetone	1.8	U	10	1.8
71-43-2	Benzene	0.28	U	1.0	0.28
108-86-1	Bromobenzene	0.31	U	1.0	0.31
75-25-2	Bromoform	0.43	U	1.0	0.43
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.34	U	1.0	0.34
56-23-5	Carbon tetrachloride	0.35	U	1.0	0.35
108-90-7	Chlorobenzene	0.32	U	1.0	0.32
124-48-1	Chlorodibromomethane	0.25	U	1.0	0.25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328770/9

Matrix: Water | Lab File ID: U1263961.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 11:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.41	U	1.0	0.41
67-66-3	Chloroform	0.31	U	1.0	0.31
74-87-3	Chloromethane	0.43	U	1.0	0.43
156-59-2	cis-1,2-Dichloroethene	0.30	U	1.0	0.30
10061-01-5	cis-1,3-Dichloropropene	0.26	U	1.0	0.26
74-95-3	Dibromomethane	0.46	U	1.0	0.46
74-97-5	Bromochloromethane	0.47	U	1.0	0.47
75-71-8	Dichlorodifluoromethane	0.50	U	1.0	0.50
75-27-4	Bromodichloromethane	0.30	U	1.0	0.30
75-65-0	tert-Butyl alcohol	4.6	U	50	4.6
100-41-4	Ethylbenzene	0.26	U	1.0	0.26
87-68-3	Hexachlorobutadiene	0.36	U	1.0	0.36
108-20-3	Diisopropyl ether	0.44	U	10	0.44
98-82-8	Isopropylbenzene	0.21	U	1.0	0.21
1634-04-4	Methyl tert-butyl ether	0.27	U	1.0	0.27
75-09-2	Methylene Chloride	0.53	U	1.0	0.53
179601-23-1	m-Xylene & p-Xylene	0.24	U	2.0	0.24
91-20-3	Naphthalene	0.25	U	1.0	0.25
104-51-8	n-Butylbenzene	0.21	U	1.0	0.21
103-65-1	N-Propylbenzene	0.45	U	1.0	0.45
95-47-6	o-Xylene	0.28	U	1.0	0.28
135-98-8	sec-Butylbenzene	0.27	U	1.0	0.27
100-42-5	Styrene	0.23	U	1.0	0.23
994-05-8	Tert-amyl methyl ether	0.29	U	5.0	0.29
637-92-3	Ethyl tert-butyl ether	0.35	U	5.0	0.35
127-18-4	Tetrachloroethene	0.30	U	1.0	0.30
108-88-3	Toluene	0.23	U	1.0	0.23
156-60-5	trans-1,2-Dichloroethene	0.29	U	1.0	0.29
10061-02-6	trans-1,3-Dichloropropene	0.31	U	1.0	0.31
79-01-6	Trichloroethene	0.33	U	1.0	0.33
75-69-4	Trichlorofluoromethane	0.50	U	1.0	0.50
108-05-4	Vinyl acetate	0.28	U	2.0	0.28
75-01-4	Vinyl chloride	0.45	U	1.0	0.45
1330-20-7	Xylenes, Total	0.24	U	2.0	0.24
98-06-6	tert-Butylbenzene	0.26	U	1.0	0.26
106-93-4	1,2-Dibromoethane	0.23	U	1.0	0.23

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328770/9

Matrix: Water Lab File ID: U1263961.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 11:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	116		73-120
1868-53-7	Dibromofluoromethane (Surr)	119		69-124
460-00-4	4-Bromofluorobenzene (Surr)	106		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328770/9

Matrix: Water Lab File ID: U1263961.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2018 11:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328770 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328770/9

Matrix: Water | Lab File ID: U1263961.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2018 11:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328770 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: BFB3839.D BFB Injection Date: 05/24/2018

Instrument ID: A3UX12 BFB Injection Time: 11:19

Analysis Batch No.: 328331

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	87.1	
175	5.0 - 9.0 % of mass 174	6.9	(8.0) 1
176	95.0 - 101.0 % of mass 174	85.5	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-328331/10	U1263873.D	05/24/2018	12:04
	STD8260 240-328331/11	U1263874.D	05/24/2018	12:27
	STD8260 240-328331/12	U1263875.D	05/24/2018	12:51
	ICIS 240-328331/13	U1263876a.D	05/24/2018	13:14
	STD8260 240-328331/14	U1263877.D	05/24/2018	13:37
	STD8260 240-328331/15	U1263878.D	05/24/2018	14:01
	STD8260 240-328331/16	U1263879.D	05/24/2018	14:24
	ICV 240-328331/17	U1263880.D	05/24/2018	14:59
	STDA9 240-328331/20	U1263883.D	05/24/2018	16:09
	STDA9 240-328331/21	U1263884.D	05/24/2018	16:32
	STDA9 240-328331/22	U1263885.D	05/24/2018	16:55
	STDA9 240-328331/23	U1263886.D	05/24/2018	17:19
	STDA9 240-328331/24	U1263887.D	05/24/2018	17:42
	STDA9 240-328331/25	U1263888.D	05/24/2018	18:05
	ICV 240-328331/26	U1263889.D	05/24/2018	18:28

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2603	0.1596 0.2588	0.1879	0.2097	0.2205	Ave		0.2161			0.1000	18.3		20.0			
Chloromethane	0.2074 0.1888	0.1877 0.1804	0.1977	0.1856	0.1846	Ave		0.1903			0.1000	4.8		20.0			
Vinyl chloride	0.2355 0.2253	0.2131 0.2200	0.2267	0.2184	0.2153	Ave		0.2220			0.1000	3.5		20.0			
Butadiene	0.1940 0.1994	0.1514 0.1974	0.1906	0.1873	0.1866	Ave		0.1867				8.7		20.0			
Bromomethane	0.2520 0.2446	0.2310 0.2444	0.2365	0.2318	0.2332	Ave		0.2391			0.0500	3.4		20.0			
Chloroethane	+++++ 0.1670	0.1522 0.1660	0.1773	0.1694	0.1669	Ave		0.1665			0.0500	4.9		20.0			
Dichlorofluoromethane	0.4008 0.3897	0.3845 0.3741	0.4047	0.3774	0.3746	Ave		0.3865				3.2		20.0			
Trichlorofluoromethane	0.3368 0.4334	0.3271 0.4354	0.3952	0.3978	0.4019	Ave		0.3897			0.1000	11.0		20.0			
Ethyl ether	0.1493 0.1341	0.1445 0.1280	0.1452	0.1377	0.1283	Ave		0.1382				6.1		20.0			
Acrolein	+++++ 0.0159	0.0173 0.0153	0.0166	0.0153	0.0155	Ave		0.0160				5.2		20.0			
1,1-Dichloroethene	0.2449 0.2791	0.2600 0.2719	0.2932	0.2858	0.2708	Ave		0.2722			0.1000	5.9		20.0			
1,1,2-Trichlorotrifluoroethane	0.1633 0.2132	0.1574 0.2146	0.1765	0.2150	0.1920	Ave		0.1903			0.0500	13.1		20.0			
Acetone	0.1362 0.0312	0.0816 0.0284	0.0371	0.0355	0.0297	Lin1	0.1094	0.0290			0.0100	9.0			0.9950		0.9900
Iodomethane	0.3231 0.3397	0.3218 0.3308	0.3571	0.3402	0.3221	Ave		0.3335				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6495 0.5749	0.5392 0.5649	0.5900	0.5818	0.5519	Ave		0.5789			0.1000	6.2		20.0			
3-Chloro-1-propene	0.2475 0.1995	0.2215 0.1969	0.2149	0.2060	0.1896	Ave		0.2108				9.2		20.0			
Methyl acetate	+++++ 0.0774	0.0837 0.0748	0.0851	0.0806	0.0755	Ave		0.0795		*	0.1000	5.4		20.0			
Methylene Chloride	0.4380 0.1993	0.3213 0.1925	0.2268	0.2134	0.1923	Lin1	0.1303	0.1948			0.1000	6.8			0.9980		0.9900
tert-Butyl alcohol	0.0171 0.0129	0.0156 0.0126	0.0141	0.0133	0.0121	Ave		0.0139				12.8		20.0			
Acrylonitrile	0.0417 0.0394	0.0367 0.0384	0.0414	0.0395	0.0376	Ave		0.0392				4.7		20.0			
trans-1,2-Dichloroethene	0.2490 0.2464	0.2315 0.2456	0.2530	0.2538	0.2385	Ave		0.2454			0.1000	3.3		20.0			
Methyl tert-butyl ether	0.5466 0.5478	0.5391 0.5434	0.5741	0.5509	0.5300	Ave		0.5474			0.1000	2.5		20.0			
Hexane	0.1442 0.2124	0.1444 0.2137	0.1655	0.2165	0.1829	Ave		0.1828				17.6		20.0			
1,1-Dichloroethane	0.2725 0.2856	0.2504 0.2795	0.2801	0.2750	0.2700	Ave		0.2733			0.2000	4.2		20.0			
Vinyl acetate	0.2049 0.1712	0.1486 0.1712	0.1684	0.1714	0.1637	Ave		0.1713				9.9		20.0			
2,2-Dichloropropane	0.3326 0.3112	0.3168 0.3086	0.3113	0.3073	0.2950	Ave		0.3118				3.6		20.0			
cis-1,2-Dichloroethene	0.2183 0.2381	0.2079 0.2310	0.2360	0.2380	0.2289	Ave		0.2283			0.1000	5.0		20.0			
2-Butanone (MEK)	0.0173 0.0168	0.0153 0.0169	0.0162	0.0165	0.0173	Ave		0.0166			0.0100	4.4		20.0			
Bromochloromethane	0.1044 0.1207	0.1401 0.1163	0.1338	0.1249	0.1142	Ave		0.1221				9.9		20.0			
Tetrahydrofuran	0.0443 0.0288	0.0332 0.0272	0.0329	0.0292	0.0268	Ave		0.0318				19.2		20.0			
Chloroform	0.3438 0.3710	0.3124 0.3603	0.3733	0.3631	0.3548	Ave		0.3541			0.2000	5.9		20.0			
1,1,1-Trichloroethane	0.3716 0.3736	0.3211 0.3687	0.3683	0.3664	0.3544	Ave		0.3606			0.1000	5.1		20.0			
Cyclohexane	0.2329 0.3488	0.2672 0.3461	0.3014	0.3503	0.3172	Ave		0.3091			0.1000	14.7		20.0			
1,1-Dichloropropene	0.2929 0.2971	0.2649 0.2887	0.2947	0.3019	0.2853	Ave		0.2894				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2662 0.3269	0.2488 0.3244	0.3003	0.3102	0.3070	Ave		0.2977			0.1000	9.9		20.0			
Isobutyl alcohol	0.0029 0.0027	0.0033 0.0026	0.0027	0.0027	0.0028	Ave		0.0028				8.3		20.0			
Benzene	0.8220 0.8347	0.8632 0.8053	0.8648	0.8617	0.8164	Ave		0.8383			0.5000	3.0		20.0			
1,2-Dichloroethane	0.2781 0.2490	0.2459 0.2375	0.2674	0.2543	0.2422	Ave		0.2535			0.1000	5.7		20.0			
n-Heptane	+++++ 0.1461	0.7106 0.1358	0.1626	0.1663	0.1391	Lin1	0.5718	0.1267				11.1			0.9960		0.9900
Trichloroethene	0.2773 0.2678	0.2388 0.2554	0.2699	0.2673	0.2548	Ave		0.2616			0.1500	4.9		20.0			
Methylcyclohexane	0.3305 0.4054	0.2970 0.4008	0.3354	0.4164	0.3766	Ave		0.3660			0.1000	12.4		20.0			
1,2-Dichloropropane	0.1712 0.1672	0.1493 0.1616	0.1772	0.1756	0.1655	Ave		0.1668			0.1000	5.7		20.0			
Dibromomethane	0.1515 0.1343	0.1266 0.1299	0.1422	0.1375	0.1292	Ave		0.1359				6.4		20.0			
1,4-Dioxane	+++++ 0.0009	0.0006 0.0009	0.0009	0.0010	0.0009	Ave		0.0009				13.1		20.0			
Bromodichloromethane	0.2416 0.2938	0.2446 0.2857	0.2836	0.2940	0.2801	Ave		0.2748			0.1500	8.1		20.0			
2-Chloroethyl vinyl ether	0.0806 0.0946	0.0897 0.0919	0.1013	0.0967	0.0908	Ave		0.0922				7.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.3094	0.2730 0.3008	0.3091	0.3181	0.2975	Ave		0.3013			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.1140 0.1171	0.1013 0.1094	0.1240	0.1197	0.1134	Ave		0.1141			0.0500	6.4		20.0			
Toluene	1.3467 1.3118	1.1191 1.2374	1.3358	1.3489	1.2626	Ave		1.2803			0.4000	6.5		20.0			
trans-1,3-Dichloropropene	0.3185 0.3610	0.3260 0.3476	0.3434	0.3500	0.3436	Ave		0.3414			0.1000	4.3		20.0			
Ethyl methacrylate	0.2428 0.2914	0.1957 0.2820	0.2901	0.2943	0.2828	Ave		0.2684				13.6		20.0			
1,1,2-Trichloroethane	0.2852 0.2262	0.2091 0.2131	0.2311	0.2343	0.2150	Ave		0.2306			0.1000	11.2		20.0			
Tetrachloroethene	0.3640 0.3537	0.3678 0.3338	0.3594	0.3555	0.3378	Ave		0.3532			0.1500	3.6		20.0			
1,3-Dichloropropane	0.3663 0.3709	0.3736 0.3436	0.3924	0.3874	0.3539	Ave		0.3697				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1137 0.1004	0.0944 0.0942	0.0980	0.1077	0.0963	Ave		0.1007			0.0500	7.3		20.0			
Chlorodibromomethane	0.2426 0.2756	0.2085 0.2695	0.2562	0.2580	0.2589	Ave		0.2528				8.8		20.0			
1,2-Dibromoethane	0.2253 0.2319	0.2226 0.2237	0.2249	0.2389	0.2258	Ave		0.2276				2.5		20.0			
Chlorobenzene	0.9032 0.8827	0.8855 0.8358	0.9087	0.9064	0.8416	Ave		0.8806			0.3000	3.4		20.0			
1,1,1,2-Tetrachloroethane	0.2269 0.3044	0.2708 0.2998	0.2923	0.3039	0.2896	Ave		0.2840				9.8		20.0			
Ethylbenzene	0.5365 0.5247	0.4708 0.4913	0.5155	0.5171	0.4914	Ave		0.5068				4.5		20.0			
m-Xylene & p-Xylene	0.5462 0.6441	0.5853 0.6064	0.6290	0.6595	0.6120	Ave		0.6118				6.2		20.0			
o-Xylene	0.5661 0.6282	0.5236 0.5896	0.6127	0.6224	0.5928	Ave		0.5908				6.2		20.0			
Styrene	0.8186 1.0437	0.8060 1.0026	0.9867	1.0463	0.9911	Ave		0.9564			0.3000	10.6		20.0			
Bromoform	0.1105 0.1602	0.1050 0.1610	0.1327	0.1459	0.1493	Ave		0.1378			0.1000	16.4		20.0			
Isopropylbenzene	1.3938 1.6579	1.3584 1.5726	1.6265	1.6491	1.6098	Ave		1.5526			0.1000	8.0		20.0			
1,1,2,2-Tetrachloroethane	0.5045 0.4821	0.5217 0.4622	0.5362	0.5136	0.4747	Ave		0.4993			0.3000	5.4		20.0			
Bromobenzene	0.7775 0.6744	0.6592 0.6375	0.7145	0.6830	0.6534	Ave		0.6856				6.9		20.0			
1,2,3-Trichloropropane	0.2212 0.1853	0.1986 0.1774	0.2004	0.2035	0.1816	Ave		0.1954				7.8		20.0			
trans-1,4-Dichloro-2-butene	0.1209 0.1066	0.1082 0.1041	0.1067	0.1106	0.1087	Ave		0.1094				5.0		20.0			
N-Propylbenzene	0.7810 0.8362	0.7719 0.7988	0.8577	0.8470	0.8190	Ave		0.8159				4.1		20.0			
2-Chlorotoluene	0.5876 0.6916	0.6326 0.6547	0.7137	0.7013	0.6731	Ave		0.6649				6.6		20.0			
1,3,5-Trimethylbenzene	2.1686 2.4046	2.1972 2.2268	2.5058	2.4349	2.3842	Ave		2.3317				5.7		20.0			
4-Chlorotoluene	0.6197 0.7362	0.7190 0.6968	0.7891	0.7523	0.7173	Ave		0.7186				7.3		20.0			
tert-Butylbenzene	1.8792 2.1952	2.1226 2.0625	2.2747	2.2647	2.1429	Ave		2.1345				6.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1653 2.4838	2.1121 2.3064	2.5623	2.5789	2.4738	Ave		2.3832				8.0		20.0			
sec-Butylbenzene	2.7737 3.1879	2.9667 2.9457	3.2622	3.2796	3.1613	Ave		3.0824				6.2		20.0			
1,3-Dichlorobenzene	1.5385 1.4184	1.3127 1.3284	1.4509	1.4168	1.3707	Ave		1.4052			0.6000	5.5		20.0			
4-Isopropyltoluene	2.2676 2.7935	2.2972 2.6408	2.8270	2.9023	2.7638	Ave		2.6417				9.8		20.0			
1,4-Dichlorobenzene	1.4706 1.4265	1.4330 1.3421	1.5140	1.4335	1.4032	Ave		1.4318			0.5000	3.7		20.0			
n-Butylbenzene	1.9934 2.2812	2.0508 2.1308	2.2919	2.4064	2.2477	Ave		2.2003				6.7		20.0			
1,2-Dichlorobenzene	1.3934 1.3187	1.2311 1.2432	1.3592	1.3305	1.2923	Ave		1.3098			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.1032 0.1100	0.0809 0.1011	0.1044	0.1122	0.1037	Ave		0.1022			0.0500	10.0		20.0			
1,2,4-Trichlorobenzene	0.7311 0.8173	0.7877 0.7727	0.8469	0.8445	0.7941	Ave		0.7992			0.2000	5.1		20.0			
Hexachlorobutadiene	0.2879 0.3170	0.2808 0.2948	0.3381	0.3375	0.3085	Ave		0.3092				7.4		20.0			
Naphthalene	1.6292 1.8963	1.5873 1.7441	1.9389	1.9038	1.8201	Ave		1.7885				7.8		20.0			
1,2,3-Trichlorobenzene	0.7541 0.7429	0.7203 0.6908	0.7879	0.7603	0.7277	Ave		0.7406				4.2		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2216	0.2440 0.2155	0.2291	0.2485	0.2201	Ave		0.2298				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2164	0.2762 0.2040	0.2290	0.2496	0.2251	Ave		0.2334				11.1		20.0			
Toluene-d8 (Surr)	+++++ 1.1675	1.1849 1.0961	1.1790	1.3154	1.1696	Ave		1.1854				6.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4427	0.5009 0.4124	0.4521	0.4866	0.4365	Ave		0.4552				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 836716	10659 1356845	129504	307447	527839	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	6573 606767	12534 945518	136250	272132	441934	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	7466 724175	14233 1153367	156204	320226	515473	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	6149 641049	10115 1034602	131327	274536	446820	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	7989 786266	15428 1281423	162987	339913	558324	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	+++++ 536782	10167 870008	122182	248430	399560	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	12704 1252708	25683 1961196	278895	553280	896806	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Ave	10676 1393219	21847 2282675	272303	583216	962155	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	4731 431146	9649 670873	100073	201952	307128	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	+++++ 255151	5789 401377	57110	111900	185343	+++++ 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	7762 897045	17367 1425304	202037	418960	648405	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	5177 685245	10512 1125177	121624	315153	459532	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	8636 200513	10906 297733	51152	103989	141984	1.00 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	10240 1092137	21497 1733962	246046	498788	771044	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	20586 1848049	36013 2961360	406574	852996	1321243	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	7845 641173	14794 1032415	148046	302041	453905	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	+++++ 497671	11179 784563	117215	236205	361615	+++++ 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Lin1	13884 640679	21463 1009068	156249	312803	460479	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butyl alcohol	FB	Ave	5405 413396	10432 660089	96856	194350	290646	5.00 400	10.0 600	100	200	300
Acrylonitrile	FB	Ave	13224 1265136	24514 2014229	285524	578925	900156	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	7894 792117	15466 1287479	174318	372117	570882	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	17327 1760853	36007 2848507	395602	807630	1268870	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	4572 682811	9647 1120146	114071	317391	437966	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	8637 918050	16722 1465220	192994	403240	646322	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	6494 550377	9924 897393	116069	251270	391830	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2,2-Dichloropropane	FB	Ave	10542 1000311	21160 1617945	214490	450555	706156	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	6920 765388	13888 1211170	162638	348873	548052	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1099 107946	2039 177321	22285	48377	82812	1.00 80.0	2.00 120	20.0	40.0	60.0
Bromochloromethane	FB	Ave	3309 387997	9357 609521	92218	183091	273510	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	2811 185117	4434 284989	45365	85475	128248	1.00 80.0	2.00 120	20.0	40.0	60.0
Chloroform	FB	Ave	10896 1192612	20868 1888956	257197	532313	849391	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	11778 1201100	21445 1932932	253811	537246	848496	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	7382 1121309	17850 1814262	207704	513648	759439	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	9285 955093	17695 1513250	203081	442674	682919	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	8439 1050762	16620 1700503	206908	454802	735068	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	2281 219722	5559 342515	46801	99816	167628	12.5 1000	25.0 1500	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	26054 2683174	57658 4221296	595916	1263408	1954561	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	8815 800372	16427 1245124	184229	372901	579790	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Lin1	+++++ 469684	47464 711684	112066	243761	332888	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	8790 860920	15949 1338647	185998	391958	610011	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	10475 1303087	19836 2101031	231084	610517	901520	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	5426 537548	9973 847063	122090	257442	396260	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	4803 431685	8453 681210	98005	201657	309359	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 58909	859 92887	12208	28340	43042	+++++ 800	20.0 1200	200	400	600
Bromodichloromethane	FB	Ave	7658 944342	16340 1497600	195430	430996	670514	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	5108 608105	11983 963771	139592	283678	434942	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	9555 994497	18238 1577074	213023	466323	712122	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	7226 752921	13539 1147394	170870	350895	542899	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	33763 3383969	60013 5227197	758286	1597185	2445935	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7985 931257	17482 1468166	194915	414417	665678	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	6087 751622	10497 1191373	164680	348434	547863	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7149 583454	11216 900112	131179	277419	416554	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	9126 912389	19725 1410194	204025	420995	654320	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	9182 956812	20035 1451437	222736	458728	685491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	5700 518082	10122 795884	111241	255113	373063	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	6083 711006	11180 1138432	145413	305548	501614	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromoethane	CBNZ d5	Ave	5649 598330	11937 944967	127659	282834	437354	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22642 2277174	47489 3530784	515849	1073289	1630422	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5688 785271	14524 1266544	165922	359896	561051	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	13451 1353560	25247 2075431	292638	612293	952035	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13693 1661542	31386 2561742	357074	780858	1185491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	14191 1620511	28079 2490453	347825	736984	1148412	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	20523 2692449	43221 4235085	560106	1238894	1920005	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	2771 413209	5633 680252	75312	172781	289170	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	34943 4276917	72849 6643081	923332	1952636	3118455	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6482 726920	14014 1151993	162720	342254	524399	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	9990 1016942	17706 1588832	216825	455070	721754	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	2842 279423	5335 442197	60819	135587	200642	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1553 160803	2905 259472	32370	73667	120023	0.500 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	10035 1260863	20733 1990915	260304	564400	904727	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	7550 1042842	16993 1631918	216589	467282	743492	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27866 3625921	59018 5550188	760465	1622449	2633651	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	7963 1110149	19313 1736739	239483	501248	792316	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	24147 3310251	57014 5140650	690332	1509038	2367105	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27823 3745450	56731 5748723	777610	1718376	2732590	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	35641 4807054	79687 7341976	990023	2185251	3492121	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	19769 2138839	35261 3310983	440321	944059	1514166	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	29137 4212380	61703 6582081	857947	1933833	3053017	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	18896 2150985	38491 3345122	459469	955199	1550073	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	25614 3439902	55086 5310842	695561	1603447	2482925	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	17905 1988542	33068 3098556	412500	886511	1427528	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1326 165910	2173 251884	31697	74782	114565	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9394 1232350	21159 1925969	257019	562699	877240	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Ave	3700 477944	7542 734897	102618	224900	340816	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	20935 2859477	42636 4347233	588415	1268563	2010582	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9690 1120212	19347 1721913	239101	506574	803821	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 712237	16295 1129611	157886	364266	526872	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 695647	18449 1069518	157765	365938	538919	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3011915	63545 4630386	669298	1557504	2265712	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1142168	26861 1742177	256666	576212	845559	+++++ 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	-7.8						50					
Methylene Chloride	-8.9						50					
n-Heptane	+++++	9.6						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0149 0.0086	0.0117	0.0096	0.0091	0.0087	Lin1	0.0331	0.0087				5.1			0.9990		0.9900
Diisopropyl ether	0.2136 0.1661	0.1537	0.1706	0.1671	0.1641	Ave		0.1725				12.1		20.0			
2-Chloro-1,3-butadiene	0.2218 0.2515	0.2229	0.2470	0.2431	0.2439	Ave		0.2384				5.4		20.0			
Ethyl tert-butyl ether	0.4589 0.4718	0.4486	0.4746	0.4744	0.4625	Ave		0.4651				2.2		20.0			
Ethyl acetate	0.0909 0.0956	0.1013	0.0981	0.0965	0.0934	Ave		0.0960				3.8		20.0			
Propionitrile	0.0135 0.0124	0.0112	0.0123	0.0130	0.0121	Ave		0.0124				6.4		20.0			
Methacrylonitrile	0.0559 0.0581	0.0518	0.0576	0.0577	0.0565	Ave		0.0563				4.2		20.0			
Tert-amyl methyl ether	0.5437 0.6092	0.5168	0.5806	0.5993	0.5972	Ave		0.5745				6.3		20.0			
n-Butanol	0.0011 0.0022	0.0012	0.0018	0.0021	0.0020	Lin1	-0.019	0.0021				12.8			0.9970		0.9900
Ethyl acrylate	0.1408 0.1655	0.1361	0.1640	0.1551	0.1612	Ave		0.1538				8.1		20.0			
Methyl methacrylate	0.1001 0.0981	0.0960	0.0956	0.0962	0.0964	Ave		0.0971				1.8		20.0			
2-Nitropropane	0.0241 0.0213	0.0177	0.0173	0.0177	0.0202	Ave		0.0197				13.8		20.0			
n-Butyl acetate	0.2041 0.2537	0.2303	0.2253	0.2361	0.2392	Ave		0.2314				7.1		20.0			
1-Chlorohexane	0.4105 0.4711	0.4132	0.4259	0.4405	0.4652	Ave		0.4377				5.9		20.0			
Cyclohexanone	+++++ 0.0034	0.0033	0.0028	0.0032	0.0032	Ave		0.0032				7.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2700 0.3211	0.2502	0.3057	0.3057	0.3364	Ave		0.2982				10.8		20.0			
1,2,3-Trimethylbenzene	1.8506 2.6441	2.0229	2.4674	2.5828	2.6602	Ave		2.3713				14.7		20.0			
Benzyl chloride	+++++ 1.0064	0.5621	0.6642	0.8127	0.9426	Ave		0.7976				23.3	*	20.0			
1,3,5-Trichlorobenzene	0.7965 1.0155	0.8427	0.9496	1.0009	1.0090	Ave		0.9357				10.1		20.0			
2-Methylnaphthalene	0.6928 1.3694	0.7960	1.0557	1.2692	1.3391	Lin1	-0.934	1.3355				14.4			0.9970		0.9900
1-Chloro-1-fluoroethane TIC	+++++ 0.0074	+++++	0.0043	0.0087	0.0081	Ave		0.0072				27.2	*	20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	5250 423243	8044	67959	133267	269967	5.00 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	7539 817942	10575	120398	243520	511789	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7826 1238431	15336	174290	354278	760814	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	16194 2323130	30867	334911	691479	1442619	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	6415 941575	13940	138394	281195	582740	1.00 120	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	4770 611325	7693	86742	188891	378461	5.00 600	10.0	100	200	400
Methacrylonitrile	FB	Ave	19726 2859077	35630	406374	840863	1763537	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	19188 2999911	35557	409724	873561	1862508	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Lin1	931 270622	2047	31540	74794	157631	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4969 814876	9363	115737	226113	502874	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	7065 965742	13209	134968	280528	601425	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1704 209992	2435	24345	51463	125697	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	5784 923078	12659	127078	266124	558797	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	11635 1714225	22715	240265	496450	1086662	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	+++++ 125128	1814	15861	36026	74201	+++++ 600	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	7922 1187211	13520	176938	345649	778009	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	27150 4888493	54649	714091	1460244	3076169	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	+++++ 1860588	15185	192228	459481	1090030	+++++ 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11685 1877495	22765	274829	565868	1166769	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	20328 5063616	43010	611047	1435115	3097024	1.00 120	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	+++++ 36645	+++++	3064	12753	25187	+++++ 60.0	+++++	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	-4.8						50					
n-Butanol	20.3						50					
2-Methylnaphthalene	21.8						50					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.1825	0.1000	0.0169	0.0200	-15.6	30.0
Chloromethane	Ave	0.1903	0.1844	0.1000	0.0194	0.0200	-3.1	30.0
Vinyl chloride	Ave	0.2220	0.2246	0.1000	0.0202	0.0200	1.2	30.0
Butadiene	Ave	0.1867	0.1724		0.0185	0.0200	-7.6	30.0
Bromomethane	Ave	0.2391	0.2246	0.0500	0.0188	0.0200	-6.1	30.0
Chloroethane	Ave	0.1665	0.1615	0.0500	0.0194	0.0200	-3.0	30.0
Dichlorofluoromethane	Ave	0.3865	0.4011		0.0208	0.0200	3.8	30.0
Trichlorofluoromethane	Ave	0.3897	0.3981	0.1000	0.0204	0.0200	2.2	30.0
Ethyl ether	Ave	0.1382	0.1458		0.0211	0.0200	5.5	30.0
Acrolein	Ave	0.0160	0.0101		0.0634	0.100	-36.6	50.0
1,1-Dichloroethene	Ave	0.2722	0.2970	0.1000	0.0218	0.0200	9.1	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.1896	0.0500	0.0199	0.0200	-0.4	30.0
Acetone	Lin1		0.0304	0.0100	0.0381	0.0400	-4.8	50.0
Iodomethane	Ave	0.3335	0.3759		0.0225	0.0200	12.7	30.0
Carbon disulfide	Ave	0.5789	0.6356	0.1000	0.0220	0.0200	9.8	30.0
3-Chloro-1-propene	Ave	0.2108	0.2169		0.0206	0.0200	2.9	30.0
Methyl acetate	Ave	0.0795	0.0728*	0.1000	0.0366	0.0400	-8.4	30.0
Methylene Chloride	Lin1		0.2159	0.1000	0.0215	0.0200	7.5	50.0
tert-Butyl alcohol	Ave	0.0139	0.0123		0.176	0.200	-11.8	50.0
Acrylonitrile	Ave	0.0392	0.0395		0.201	0.200	0.7	30.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2696	0.1000	0.0220	0.0200	9.9	30.0
Methyl tert-butyl ether	Ave	0.5474	0.5572	0.1000	0.0204	0.0200	1.8	30.0
Hexane	Ave	0.1828	0.1797		0.0197	0.0200	-1.7	30.0
1,1-Dichloroethane	Ave	0.2733	0.3017	0.2000	0.0221	0.0200	10.4	30.0
Vinyl acetate	Ave	0.1713	0.2072		0.0242	0.0200	20.9	50.0
2,2-Dichloropropane	Ave	0.3118	0.3218		0.0206	0.0200	3.2	30.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2549	0.1000	0.0223	0.0200	11.7	30.0
2-Butanone (MEK)	Ave	0.0166	0.0177	0.0100	0.0426	0.0400	6.4	30.0
Bromochloromethane	Ave	0.1221	0.1248		0.0204	0.0200	2.2	30.0
Tetrahydrofuran	Ave	0.0318	0.0283		0.0357	0.0400	-10.8	30.0
Chloroform	Ave	0.3541	0.3881	0.2000	0.0219	0.0200	9.6	30.0
1,1,1-Trichloroethane	Ave	0.3606	0.3898	0.1000	0.0216	0.0200	8.1	30.0
Cyclohexane	Ave	0.3091	0.3100	0.1000	0.0201	0.0200	0.3	30.0
1,1-Dichloropropene	Ave	0.2894	0.3051		0.0211	0.0200	5.4	30.0
Carbon tetrachloride	Ave	0.2977	0.3337	0.1000	0.0224	0.0200	12.1	30.0
Isobutyl alcohol	Ave	0.0028	0.0023		0.412	0.500	-17.7	30.0
Benzene	Ave	0.8383	0.8536	0.5000	0.0204	0.0200	1.8	30.0
1,2-Dichloroethane	Ave	0.2535	0.2576	0.1000	0.0203	0.0200	1.6	30.0
n-Heptane	Lin1		0.1449		0.0184	0.0200	-8.2	30.0
Trichloroethene	Ave	0.2616	0.2786	0.1500	0.0213	0.0200	6.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.3532	0.1000	0.0193	0.0200	-3.5	30.0
1,2-Dichloropropane	Ave	0.1668	0.1792	0.1000	0.0215	0.0200	7.5	30.0
Dibromomethane	Ave	0.1359	0.1350		0.0199	0.0200	-0.7	30.0
1,4-Dioxane	Ave	0.0009	0.0010		0.469	0.400	17.4	50.0
Bromodichloromethane	Ave	0.2748	0.2951	0.1500	0.0215	0.0200	7.4	30.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0973		0.0211	0.0200	5.4	30.0
cis-1,3-Dichloropropene	Ave	0.3013	0.3301	0.1500	0.0219	0.0200	9.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1119	0.0500	0.0392	0.0400	-2.0	30.0
Toluene	Ave	1.280	1.339	0.4000	0.0209	0.0200	4.6	30.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3504	0.1000	0.0205	0.0200	2.6	30.0
Ethyl methacrylate	Ave	0.2684	0.2767		0.0206	0.0200	3.1	30.0
1,1,2-Trichloroethane	Ave	0.2306	0.2325	0.1000	0.0202	0.0200	0.8	30.0
Tetrachloroethene	Ave	0.3532	0.3576	0.1500	0.0203	0.0200	1.3	30.0
1,3-Dichloropropane	Ave	0.3697	0.3589		0.0194	0.0200	-2.9	30.0
2-Hexanone	Ave	0.1007	0.0975	0.0500	0.0387	0.0400	-3.2	30.0
Chlorodibromomethane	Ave	0.2528	0.2657		0.0210	0.0200	5.1	30.0
1,2-Dibromoethane	Ave	0.2276	0.2301		0.0202	0.0200	1.1	30.0
Chlorobenzene	Ave	0.8806	0.9033	0.3000	0.0205	0.0200	2.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.3063		0.0216	0.0200	7.9	30.0
Ethylbenzene	Ave	0.5068	0.5153		0.0203	0.0200	1.7	30.0
m-Xylene & p-Xylene	Ave	0.6118	0.6451		0.0211	0.0200	5.4	30.0
o-Xylene	Ave	0.5908	0.6139		0.0208	0.0200	3.9	30.0
Styrene	Ave	0.9564	0.9916	0.3000	0.0207	0.0200	3.7	30.0
Bromoform	Ave	0.1378	0.1469	0.1000	0.0213	0.0200	6.6	30.0
Isopropylbenzene	Ave	1.553	1.657	0.1000	0.0213	0.0200	6.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4932	0.3000	0.0198	0.0200	-1.2	30.0
Bromobenzene	Ave	0.6856	0.6787		0.0198	0.0200	-1.0	30.0
1,2,3-Trichloropropane	Ave	0.1954	0.1847		0.0189	0.0200	-5.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1156		0.0211	0.0200	5.7	30.0
N-Propylbenzene	Ave	0.8159	0.8582		0.0210	0.0200	5.2	30.0
2-Chlorotoluene	Ave	0.6649	0.7139		0.0215	0.0200	7.4	30.0
1,3,5-Trimethylbenzene	Ave	2.332	2.419		0.0207	0.0200	3.7	30.0
4-Chlorotoluene	Ave	0.7186	0.7375		0.0205	0.0200	2.6	30.0
tert-Butylbenzene	Ave	2.135	2.255		0.0211	0.0200	5.6	30.0
1,2,4-Trimethylbenzene	Ave	2.383	2.489		0.0209	0.0200	4.4	30.0
sec-Butylbenzene	Ave	3.082	3.237		0.0210	0.0200	5.0	30.0
1,3-Dichlorobenzene	Ave	1.405	1.408	0.6000	0.0200	0.0200	0.2	30.0
4-Isopropyltoluene	Ave	2.642	2.890		0.0219	0.0200	9.4	30.0
1,4-Dichlorobenzene	Ave	1.432	1.444	0.5000	0.0202	0.0200	0.8	30.0
n-Butylbenzene	Ave	2.200	2.350		0.0214	0.0200	6.8	30.0
1,2-Dichlorobenzene	Ave	1.310	1.313	0.4000	0.0200	0.0200	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1045	0.0500	0.0204	0.0200	2.2	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8250	0.2000	0.0206	0.0200	3.2	50.0
Hexachlorobutadiene	Ave	0.3092	0.3464		0.0224	0.0200	12.0	30.0
Naphthalene	Ave	1.789	1.876		0.0210	0.0200	4.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7670		0.0207	0.0200	3.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2573		0.0224	0.0200	12.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2471		0.0212	0.0200	5.9	30.0
Toluene-d8 (Surr)	Ave	1.185	1.315		0.0222	0.0200	11.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4784		0.0210	0.0200	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2298	0.2443		0.0213	0.0200	6.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2489		0.0213	0.0200	6.6	30.0
Toluene-d8 (Surr)	Ave	1.185	1.303		0.0220	0.0200	9.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4324		0.0190	0.0200	-5.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0091		0.206	0.200	2.8	30.0
Diisopropyl ether	Ave	0.1725	0.1813		0.0210	0.0200	5.1	30.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2607		0.0219	0.0200	9.4	30.0
Ethyl tert-butyl ether	Ave	0.4651	0.5016		0.0216	0.0200	7.8	30.0
Ethyl acetate	Ave	0.0960	0.0951		0.0396	0.0400	-0.9	50.0
Propionitrile	Ave	0.0124	0.0130		0.209	0.200	4.6	30.0
Methacrylonitrile	Ave	0.0563	0.0586		0.208	0.200	4.2	30.0
Tert-amyl methyl ether	Ave	0.5745	0.6127		0.0213	0.0200	6.6	30.0
n-Butanol	Lin1		0.0022		0.518	0.500	3.6	30.0
Ethyl acrylate	Ave	0.1538	0.1592		0.0207	0.0200	3.5	30.0
Methyl methacrylate	Ave	0.0971	0.0975		0.0402	0.0400	0.4	30.0
2-Nitropropane	Ave	0.0197	0.0188		0.0382	0.0400	-4.5	30.0
n-Butyl acetate	Ave	0.2314	0.2409		0.0208	0.0200	4.1	30.0
1-Chlorohexane	Ave	0.4377	0.4642		0.0212	0.0200	6.0	30.0
Cyclohexanone	Ave	0.0032	0.0033		0.210	0.200	4.9	30.0
Pentachloroethane	Ave	0.2982	0.3135		0.0421	0.0400	5.1	30.0
1,2,3-Trimethylbenzene	Ave	2.371	2.696		0.0227	0.0200	13.7	30.0
Benzyl chloride	Ave	0.7976	0.8396		0.0211	0.0200	5.3	30.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.031		0.0220	0.0200	10.2	30.0
2-Methylnaphthalene	Lin1		1.249		0.0381	0.0400	-4.7	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: BFB3842.D BFB Injection Date: 05/26/2018

Instrument ID: A3UX12 BFB Injection Time: 11:09

Analysis Batch No.: 328734

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.5	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	85.7	
175	5.0 - 9.0 % of mass 174	6.7	(7.8) 1
176	95.0 - 101.0 % of mass 174	84.6	(98.7) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-328734/4	U1263925.D	05/26/2018	11:37
	LCS 240-328734/5	U1263926.D	05/26/2018	12:00
	CCV 240-328734/6	U1263927.D	05/26/2018	12:23
	MB 240-328734/9	U1263930.D	05/26/2018	13:33
TB-051518	240-95742-1	U1263949.D	05/26/2018	20:56
MSA-MW-25S-051518	240-95742-2	U1263950.D	05/26/2018	21:19
MSA-MW-25I-051518	240-95742-3	U1263951.D	05/26/2018	21:42

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328734/4 Calibration Date: 05/26/2018 11:37

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263925.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.2661	0.1000	0.0246	0.0200	23.1*	20.0
Chloromethane	Ave	0.1903	0.2012	0.1000	0.0211	0.0200	5.7	20.0
Vinyl chloride	Ave	0.2220	0.2276	0.1000	0.0205	0.0200	2.5	20.0
Butadiene	Ave	0.1867	0.1880		0.0201	0.0200	0.7	20.0
Bromomethane	Ave	0.2391	0.2419	0.0500	0.0202	0.0200	1.2	20.0
Chloroethane	Ave	0.1665	0.1714	0.0500	0.0206	0.0200	2.9	20.0
Dichlorofluoromethane	Ave	0.3865	0.3918		0.0203	0.0200	1.4	20.0
Trichlorofluoromethane	Ave	0.3897	0.4133	0.1000	0.0212	0.0200	6.1	20.0
Ethyl ether	Ave	0.1382	0.1313		0.0190	0.0200	-5.0	20.0
Acrolein	Ave	0.0160	0.0139		0.0870	0.100	-13.0	50.0
1,1-Dichloroethene	Ave	0.2722	0.2832	0.1000	0.0208	0.0200	4.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.2371	0.0500	0.0249	0.0200	24.6*	20.0
Acetone	Lin1		0.0342	0.0100	0.0433	0.0400	8.2	50.0
Iodomethane	Ave	0.3335	0.3559		0.0213	0.0200	6.7	20.0
Carbon disulfide	Ave	0.5789	0.6078	0.1000	0.0210	0.0200	5.0	20.0
3-Chloro-1-propene	Ave	0.2108	0.2021		0.0192	0.0200	-4.2	20.0
Methyl acetate	Ave	0.0795	0.0720*	0.1000	0.0362	0.0400	-9.4	20.0
Methylene Chloride	Lin1		0.2082	0.1000	0.0207	0.0200	3.5	50.0
tert-Butyl alcohol	Ave	0.0139	0.0136		0.195	0.200	-2.4	50.0
Acrylonitrile	Ave	0.0392	0.0381		0.194	0.200	-3.0	20.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2436	0.1000	0.0199	0.0200	-0.7	20.0
Methyl tert-butyl ether	Ave	0.5474	0.5298	0.1000	0.0194	0.0200	-3.2	20.0
Hexane	Ave	0.1828	0.2397		0.0262	0.0200	31.1*	20.0
1,1-Dichloroethane	Ave	0.2733	0.2886	0.2000	0.0211	0.0200	5.6	20.0
Vinyl acetate	Ave	0.1713	0.1853		0.0216	0.0200	8.1	50.0
2,2-Dichloropropane	Ave	0.3118	0.3184		0.0204	0.0200	2.1	20.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2472	0.1000	0.0217	0.0200	8.3	20.0
2-Butanone (MEK)	Ave	0.0166	0.0176	0.0100	0.0424	0.0400	6.1	20.0
Bromochloromethane	Ave	0.1221	0.1167		0.0191	0.0200	-4.4	20.0
Tetrahydrofuran	Ave	0.0318	0.0274		0.0345	0.0400	-13.8	20.0
Chloroform	Ave	0.3541	0.3686	0.2000	0.0208	0.0200	4.1	20.0
1,1,1-Trichloroethane	Ave	0.3606	0.3776	0.1000	0.0209	0.0200	4.7	20.0
Cyclohexane	Ave	0.3091	0.3716	0.1000	0.0240	0.0200	20.2*	20.0
1,1-Dichloropropene	Ave	0.2894	0.2938		0.0203	0.0200	1.5	20.0
Carbon tetrachloride	Ave	0.2977	0.3205	0.1000	0.0215	0.0200	7.7	20.0
Isobutyl alcohol	Ave	0.0028	0.0026		0.463	0.500	-7.5	20.0
Benzene	Ave	0.8383	0.8532	0.5000	0.0204	0.0200	1.8	20.0
1,2-Dichloroethane	Ave	0.2535	0.2392	0.1000	0.0189	0.0200	-5.6	20.0
n-Heptane	Lin1		0.1690		0.0222	0.0200	10.8	20.0
Trichloroethene	Ave	0.2616	0.2721	0.1500	0.0208	0.0200	4.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328734/4 Calibration Date: 05/26/2018 11:37

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263925.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.4434	0.1000	0.0242	0.0200	21.1*	20.0
1,2-Dichloropropane	Ave	0.1668	0.1622	0.1000	0.0194	0.0200	-2.8	20.0
Dibromomethane	Ave	0.1359	0.1304		0.0192	0.0200	-4.1	20.0
1,4-Dioxane	Ave	0.0009	0.0011		0.493	0.400	23.2	50.0
Bromodichloromethane	Ave	0.2748	0.2776	0.1500	0.0202	0.0200	1.0	20.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0862		0.0374	0.0400	-6.5	20.0
cis-1,3-Dichloropropene	Ave	0.3013	0.2867	0.1500	0.0190	0.0200	-4.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1064	0.0500	0.0373	0.0400	-6.8	20.0
Toluene	Ave	1.280	1.292	0.4000	0.0202	0.0200	0.9	20.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3188	0.1000	0.0187	0.0200	-6.6	20.0
Ethyl methacrylate	Ave	0.2684	0.2607		0.0194	0.0200	-2.9	20.0
1,1,2-Trichloroethane	Ave	0.2306	0.2130	0.1000	0.0185	0.0200	-7.6	20.0
Tetrachloroethene	Ave	0.3532	0.3542	0.1500	0.0201	0.0200	0.3	20.0
1,3-Dichloropropane	Ave	0.3697	0.3543		0.0192	0.0200	-4.2	20.0
2-Hexanone	Ave	0.1007	0.0929	0.0500	0.0369	0.0400	-7.8	20.0
Chlorodibromomethane	Ave	0.2528	0.2454		0.0194	0.0200	-2.9	20.0
1,2-Dibromoethane	Ave	0.2276	0.2186		0.0192	0.0200	-4.0	20.0
Chlorobenzene	Ave	0.8806	0.8728	0.3000	0.0198	0.0200	-0.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.2943		0.0207	0.0200	3.7	20.0
Ethylbenzene	Ave	0.5068	0.5183		0.0205	0.0200	2.3	20.0
m-Xylene & p-Xylene	Ave	0.6118	0.6308		0.0206	0.0200	3.1	20.0
o-Xylene	Ave	0.5908	0.6115		0.0207	0.0200	3.5	20.0
Styrene	Ave	0.9564	0.9710	0.3000	0.0203	0.0200	1.5	20.0
Bromoform	Ave	0.1378	0.1378	0.1000	0.0200	0.0200	0.0	20.0
Isopropylbenzene	Ave	1.553	1.623	0.1000	0.0209	0.0200	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4806	0.3000	0.0193	0.0200	-3.7	20.0
Bromobenzene	Ave	0.6856	0.6691		0.0195	0.0200	-2.4	20.0
1,2,3-Trichloropropane	Ave	0.1954	0.1836		0.0188	0.0200	-6.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1045		0.0191	0.0200	-4.5	20.0
N-Propylbenzene	Ave	0.8159	0.8481		0.0208	0.0200	3.9	20.0
2-Chlorotoluene	Ave	0.6649	0.7072		0.0213	0.0200	6.4	20.0
1,3,5-Trimethylbenzene	Ave	2.332	2.454		0.0210	0.0200	5.2	20.0
4-Chlorotoluene	Ave	0.7186	0.7260		0.0202	0.0200	1.0	20.0
tert-Butylbenzene	Ave	2.135	2.272		0.0213	0.0200	6.4	20.0
1,2,4-Trimethylbenzene	Ave	2.383	2.498		0.0210	0.0200	4.8	20.0
sec-Butylbenzene	Ave	3.082	3.294		0.0214	0.0200	6.9	20.0
1,3-Dichlorobenzene	Ave	1.405	1.380	0.6000	0.0196	0.0200	-1.8	20.0
4-Isopropyltoluene	Ave	2.642	2.869		0.0217	0.0200	8.6	20.0
1,4-Dichlorobenzene	Ave	1.432	1.449	0.5000	0.0202	0.0200	1.2	20.0
n-Butylbenzene	Ave	2.200	2.388		0.0217	0.0200	8.5	20.0
1,2-Dichlorobenzene	Ave	1.310	1.301	0.4000	0.0199	0.0200	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328734/4 Calibration Date: 05/26/2018 11:37

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263925.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1037	0.0500	0.0203	0.0200	1.4	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8354	0.2000	0.0209	0.0200	4.5	50.0
Hexachlorobutadiene	Ave	0.3092	0.3594		0.0232	0.0200	16.2	20.0
Naphthalene	Ave	1.789	1.887		0.0211	0.0200	5.5	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7493		0.0202	0.0200	1.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2540		0.0221	0.0200	10.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2521		0.0216	0.0200	8.0	20.0
Toluene-d8 (Surr)	Ave	1.185	1.327		0.0224	0.0200	11.9	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4981		0.0219	0.0200	9.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328734/6 Calibration Date: 05/26/2018 12:23

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263927.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0103		0.233	0.200	16.6	20.0
Diisopropyl ether	Ave	0.1725	0.1784		0.0207	0.0200	3.4	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2606		0.0219	0.0200	9.3	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.5008		0.0215	0.0200	7.7	20.0
Ethyl acetate	Ave	0.0960	0.0999		0.0416	0.0400	4.1	50.0
Propionitrile	Ave	0.0124	0.0143		0.230	0.200	15.2	20.0
Methacrylonitrile	Ave	0.0563	0.0577		0.205	0.200	2.5	20.0
Tert-amyl methyl ether	Ave	0.5745	0.6040		0.0210	0.0200	5.1	20.0
n-Butanol	Lin1		0.0029		0.696	0.500	39.3*	20.0
Ethyl acrylate	Ave	0.1538	0.1614		0.0210	0.0200	5.0	20.0
Methyl methacrylate	Ave	0.0971	0.0931		0.0383	0.0400	-4.1	20.0
2-Nitropropane	Ave	0.0197	0.0185		0.0375	0.0400	-6.2	20.0
n-Butyl acetate	Ave	0.2314	0.2324		0.0201	0.0200	0.4	20.0
1-Chlorohexane	Ave	0.4377	0.4602		0.0210	0.0200	5.1	20.0
Cyclohexanone	Ave	0.0032	0.0041		0.256	0.200	28.1*	20.0
Pentachloroethane	Ave	0.2982	0.3546		0.0476	0.0400	18.9	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.655		0.0224	0.0200	12.0	20.0
Benzyl chloride	Ave	0.7976	0.8618		0.0216	0.0200	8.0	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.035		0.0221	0.0200	10.6	20.0
2-Methylnaphthalene	Lin1		1.252		0.0382	0.0400	-4.5	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: BFB3843.D BFB Injection Date: 05/27/2018

Instrument ID: A3UX12 BFB Injection Time: 09:07

Analysis Batch No.: 328770

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	49.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	86.0	
175	5.0 - 9.0 % of mass 174	6.9	(8.1) 1
176	95.0 - 101.0 % of mass 174	82.5	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-328770/4	U1263956.D	05/27/2018	09:28
	LCS 240-328770/5	U1263957.D	05/27/2018	09:52
	CCV 240-328770/6	U1263958.D	05/27/2018	10:15
	MB 240-328770/9	U1263961.D	05/27/2018	11:24
MSA-MW-4-051518	240-95742-4	U1263970.D	05/27/2018	15:06
MSA-MW-20S-051618	240-95742-5	U1263971.D	05/27/2018	15:29
MSA-MW-20I-051618	240-95742-6	U1263972.D	05/27/2018	15:52
MSA-MW-20D-051618	240-95742-7	U1263973.D	05/27/2018	16:16

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328770/4 Calibration Date: 05/27/2018 09:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.3048	0.1000	0.0282	0.0200	41.0*	20.0
Chloromethane	Ave	0.1903	0.1976	0.1000	0.0208	0.0200	3.9	20.0
Vinyl chloride	Ave	0.2220	0.2251	0.1000	0.0203	0.0200	1.3	20.0
Butadiene	Ave	0.1867	0.2040		0.0219	0.0200	9.3	20.0
Bromomethane	Ave	0.2391	0.2489	0.0500	0.0208	0.0200	4.1	20.0
Chloroethane	Ave	0.1665	0.1718	0.0500	0.0206	0.0200	3.2	20.0
Dichlorofluoromethane	Ave	0.3865	0.3857		0.0200	0.0200	-0.2	20.0
Trichlorofluoromethane	Ave	0.3897	0.4606	0.1000	0.0236	0.0200	18.2	20.0
Ethyl ether	Ave	0.1382	0.1400		0.0203	0.0200	1.3	20.0
Acrolein	Ave	0.0160	0.0141		0.0884	0.100	-11.6	50.0
1,1-Dichloroethene	Ave	0.2722	0.2959	0.1000	0.0217	0.0200	8.7	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.2576	0.0500	0.0271	0.0200	35.4*	20.0
Acetone	Lin1		0.0342	0.0100	0.0434	0.0400	8.4	50.0
Iodomethane	Ave	0.3335	0.3735		0.0224	0.0200	12.0	20.0
Carbon disulfide	Ave	0.5789	0.6418	0.1000	0.0222	0.0200	10.9	20.0
3-Chloro-1-propene	Ave	0.2108	0.2106		0.0200	0.0200	-0.1	20.0
Methyl acetate	Ave	0.0795	0.0778*	0.1000	0.0392	0.0400	-2.1	20.0
Methylene Chloride	Lin1		0.2150	0.1000	0.0214	0.0200	7.0	50.0
tert-Butyl alcohol	Ave	0.0139	0.0174		0.249	0.200	24.7	50.0
Acrylonitrile	Ave	0.0392	0.0399		0.203	0.200	1.7	20.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2680	0.1000	0.0218	0.0200	9.2	20.0
Methyl tert-butyl ether	Ave	0.5474	0.5567	0.1000	0.0203	0.0200	1.7	20.0
Hexane	Ave	0.1828	0.2569		0.0281	0.0200	40.5*	20.0
1,1-Dichloroethane	Ave	0.2733	0.3008	0.2000	0.0220	0.0200	10.1	20.0
Vinyl acetate	Ave	0.1713	0.1838		0.0215	0.0200	7.3	50.0
2,2-Dichloropropane	Ave	0.3118	0.3167		0.0203	0.0200	1.6	20.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2466	0.1000	0.0216	0.0200	8.0	20.0
2-Butanone (MEK)	Ave	0.0166	0.0181	0.0100	0.0435	0.0400	8.7	20.0
Bromochloromethane	Ave	0.1221	0.1193		0.0195	0.0200	-2.3	20.0
Tetrahydrofuran	Ave	0.0318	0.0283		0.0356	0.0400	-11.0	20.0
Chloroform	Ave	0.3541	0.3697	0.2000	0.0209	0.0200	4.4	20.0
1,1,1-Trichloroethane	Ave	0.3606	0.3715	0.1000	0.0206	0.0200	3.0	20.0
Cyclohexane	Ave	0.3091	0.3813	0.1000	0.0247	0.0200	23.3*	20.0
1,1-Dichloropropene	Ave	0.2894	0.2965		0.0205	0.0200	2.5	20.0
Carbon tetrachloride	Ave	0.2977	0.3232	0.1000	0.0217	0.0200	8.6	20.0
Isobutyl alcohol	Ave	0.0028	0.0032		0.556	0.500	11.2	20.0
Benzene	Ave	0.8383	0.8524	0.5000	0.0203	0.0200	1.7	20.0
1,2-Dichloroethane	Ave	0.2535	0.2377	0.1000	0.0188	0.0200	-6.2	20.0
n-Heptane	Lin1		0.1766		0.0234	0.0200	16.8	20.0
Trichloroethene	Ave	0.2616	0.2719	0.1500	0.0208	0.0200	3.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328770/4 Calibration Date: 05/27/2018 09:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.4479	0.1000	0.0245	0.0200	22.4*	20.0
1,2-Dichloropropane	Ave	0.1668	0.1661	0.1000	0.0199	0.0200	-0.4	20.0
Dibromomethane	Ave	0.1359	0.1268		0.0187	0.0200	-6.7	20.0
1,4-Dioxane	Ave	0.0009	0.0016		0.743	0.400	85.8*	50.0
Bromodichloromethane	Ave	0.2748	0.2723	0.1500	0.0198	0.0200	-0.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0864		0.0375	0.0400	-6.3	20.0
cis-1,3-Dichloropropene	Ave	0.3013	0.2903	0.1500	0.0193	0.0200	-3.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1013	0.0500	0.0355	0.0400	-11.2	20.0
Toluene	Ave	1.280	1.302	0.4000	0.0203	0.0200	1.7	20.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3285	0.1000	0.0192	0.0200	-3.8	20.0
Ethyl methacrylate	Ave	0.2684	0.2544		0.0190	0.0200	-5.2	20.0
1,1,2-Trichloroethane	Ave	0.2306	0.2177	0.1000	0.0189	0.0200	-5.6	20.0
Tetrachloroethene	Ave	0.3532	0.3492	0.1500	0.0198	0.0200	-1.1	20.0
1,3-Dichloropropane	Ave	0.3697	0.3516		0.0190	0.0200	-4.9	20.0
2-Hexanone	Ave	0.1007	0.0892	0.0500	0.0355	0.0400	-11.3	20.0
Chlorodibromomethane	Ave	0.2528	0.2415		0.0191	0.0200	-4.5	20.0
1,2-Dibromoethane	Ave	0.2276	0.2185		0.0192	0.0200	-4.0	20.0
Chlorobenzene	Ave	0.8806	0.8834	0.3000	0.0201	0.0200	0.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.2895		0.0204	0.0200	2.0	20.0
Ethylbenzene	Ave	0.5068	0.5066		0.0200	0.0200	-0.0	20.0
m-Xylene & p-Xylene	Ave	0.6118	0.6259		0.0205	0.0200	2.3	20.0
o-Xylene	Ave	0.5908	0.5991		0.0203	0.0200	1.4	20.0
Styrene	Ave	0.9564	0.9799	0.3000	0.0205	0.0200	2.5	20.0
Bromoform	Ave	0.1378	0.1344	0.1000	0.0195	0.0200	-2.5	20.0
Isopropylbenzene	Ave	1.553	1.614	0.1000	0.0208	0.0200	4.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4489	0.3000	0.0180	0.0200	-10.1	20.0
Bromobenzene	Ave	0.6856	0.6236		0.0182	0.0200	-9.0	20.0
1,2,3-Trichloropropane	Ave	0.1954	0.1773		0.0181	0.0200	-9.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.0954		0.0174	0.0200	-12.8	20.0
N-Propylbenzene	Ave	0.8159	0.8220		0.0201	0.0200	0.7	20.0
2-Chlorotoluene	Ave	0.6649	0.6808		0.0205	0.0200	2.4	20.0
1,3,5-Trimethylbenzene	Ave	2.332	2.358		0.0202	0.0200	1.1	20.0
4-Chlorotoluene	Ave	0.7186	0.7052		0.0196	0.0200	-1.9	20.0
tert-Butylbenzene	Ave	2.135	2.154		0.0202	0.0200	0.9	20.0
1,2,4-Trimethylbenzene	Ave	2.383	2.413		0.0203	0.0200	1.3	20.0
sec-Butylbenzene	Ave	3.082	3.146		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.405	1.347	0.6000	0.0192	0.0200	-4.1	20.0
4-Isopropyltoluene	Ave	2.642	2.789		0.0211	0.0200	5.6	20.0
1,4-Dichlorobenzene	Ave	1.432	1.356	0.5000	0.0189	0.0200	-5.3	20.0
n-Butylbenzene	Ave	2.200	2.277		0.0207	0.0200	3.5	20.0
1,2-Dichlorobenzene	Ave	1.310	1.248	0.4000	0.0191	0.0200	-4.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVIS 240-328770/4 Calibration Date: 05/27/2018 09:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263956.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.0992	0.0500	0.0194	0.0200	-3.0	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.7990	0.2000	0.0200	0.0200	-0.0	50.0
Hexachlorobutadiene	Ave	0.3092	0.3455		0.0223	0.0200	11.7	20.0
Naphthalene	Ave	1.789	1.727		0.0193	0.0200	-3.4	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7091		0.0191	0.0200	-4.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2564		0.0223	0.0200	11.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2429		0.0208	0.0200	4.1	20.0
Toluene-d8 (Surr)	Ave	1.185	1.321		0.0223	0.0200	11.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.5104		0.0224	0.0200	12.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328770/6 Calibration Date: 05/27/2018 10:15

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263958.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0104		0.235	0.200	17.6	20.0
Diisopropyl ether	Ave	0.1725	0.1790		0.0207	0.0200	3.7	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2527		0.0212	0.0200	6.0	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.4883		0.0210	0.0200	5.0	20.0
Ethyl acetate	Ave	0.0960	0.0945		0.0394	0.0400	-1.5	50.0
Propionitrile	Ave	0.0124	0.0134		0.215	0.200	7.7	20.0
Methacrylonitrile	Ave	0.0563	0.0552		0.196	0.200	-1.8	20.0
Tert-amyl methyl ether	Ave	0.5745	0.5800		0.0202	0.0200	1.0	20.0
n-Butanol	Lin1		0.0032		0.762	0.500	52.3*	20.0
Ethyl acrylate	Ave	0.1538	0.1516		0.0197	0.0200	-1.4	20.0
Methyl methacrylate	Ave	0.0971	0.0907		0.0374	0.0400	-6.6	20.0
2-Nitropropane	Ave	0.0197	0.0173		0.0350	0.0400	-12.4	20.0
n-Butyl acetate	Ave	0.2314	0.2159		0.0187	0.0200	-6.7	20.0
1-Chlorohexane	Ave	0.4377	0.4573		0.0209	0.0200	4.5	20.0
Cyclohexanone	Ave	0.0032	0.0047		0.292	0.200	45.9*	20.0
Pentachloroethane	Ave	0.2982	0.3516		0.0472	0.0400	17.9	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.583		0.0218	0.0200	8.9	20.0
Benzyl chloride	Ave	0.7976	0.7929		0.0199	0.0200	-0.6	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.029		0.0220	0.0200	9.9	20.0
2-Methylnaphthalene	Lin1		1.177		0.0359	0.0400	-10.2	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: ICIS 240-328331/13 Date Analyzed: 05/24/2018 13:14

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263876a.D Heated Purge: (Y/N) N

Calibration ID: 45345

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1466112	5.10	1184093	7.76	666320	9.97
UPPER LIMIT		2932224	5.60	2368186	8.26	1332640	10.47
LOWER LIMIT		733056	4.60	592047	7.26	333160	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-328331/17		1644962	5.10	1326619	7.76	746221	9.97
ICV 240-328331/26		1501263	5.10	1169376	7.76	574191	9.97
CCVIS 240-328734/4		1612485	5.10	1303145	7.76	720279	9.97
CCVIS 240-328770/4		1680784	5.10	1336212	7.76	771817	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: CCVIS 240-328734/4 Date Analyzed: 05/26/2018 11:37

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263925.D Heated Purge: (Y/N) N

Calibration ID: 45349

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1612485	5.10	1303145	7.76	720279	9.97
UPPER LIMIT		3224970	5.60	2606290	8.26	1440558	10.47
LOWER LIMIT		806243	4.60	651573	7.26	360140	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328734/5		1568153	5.10	1226927	7.76	693218	9.97
CCV 240-328734/6		1641144	5.10	1275333	7.76	647393	9.97
MB 240-328734/9		1440190	5.10	1130209	7.76	570364	9.97
240-95742-1	TB-051518	1455382	5.10	1108193	7.76	549502	9.97
240-95742-2	MSA-MW-25S-051518	1470423	5.10	1161664	7.76	565981	9.97
240-95742-3	MSA-MW-25I-051518	1417339	5.10	1104601	7.76	551745	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: CCVIS 240-328770/4 Date Analyzed: 05/27/2018 09:28

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263956.D Heated Purge: (Y/N) N

Calibration ID: 45349

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1680784	5.10	1336212	7.76	771817	9.97
UPPER LIMIT		3361568	5.60	2672424	8.26	1543634	10.47
LOWER LIMIT		840392	4.60	668106	7.26	385909	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328770/5		1690560	5.10	1358926	7.76	781170	9.97
CCV 240-328770/6		1551241	5.10	1215296	7.76	610416	9.97
MB 240-328770/9		1463486	5.10	1170334	7.76	609365	9.97
240-95742-4	MSA-MW-4-051518	1505334	5.10	1194518	7.76	607251	9.97
240-95742-5	MSA-MW-20S-051618	1502715	5.10	1160910	7.76	586519	9.97
240-95742-6	MSA-MW-20I-051618	1502818	5.10	1201390	7.76	600785	9.97
240-95742-7	MSA-MW-20D-051618	1523440	5.10	1191110	7.76	632680	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A3UX12 Start Date: 05/24/2018 11:19

Analysis Batch Number: 328331 End Date: 05/24/2018 18:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-328331/1		05/24/2018 11:19	1	BFB3839.D	DB-624 0.18(mm)
STD8260 240-328331/10 IC		05/24/2018 12:04	1	U1263873.D	DB-624 0.18(mm)
STD8260 240-328331/11 IC		05/24/2018 12:27	1	U1263874.D	DB-624 0.18(mm)
STD8260 240-328331/12 IC		05/24/2018 12:51	1	U1263875.D	DB-624 0.18(mm)
ICIS 240-328331/13		05/24/2018 13:14	1	U1263876a.D	DB-624 0.18(mm)
STD8260 240-328331/14 IC		05/24/2018 13:37	1	U1263877.D	DB-624 0.18(mm)
STD8260 240-328331/15 IC		05/24/2018 14:01	1	U1263878.D	DB-624 0.18(mm)
STD8260 240-328331/16 IC		05/24/2018 14:24	1	U1263879.D	DB-624 0.18(mm)
ICV 240-328331/17		05/24/2018 14:59	1	U1263880.D	DB-624 0.18(mm)
STDA9 240-328331/20 IC		05/24/2018 16:09	1	U1263883.D	DB-624 0.18(mm)
STDA9 240-328331/21 IC		05/24/2018 16:32	1	U1263884.D	DB-624 0.18(mm)
STDA9 240-328331/22 IC		05/24/2018 16:55	1	U1263885.D	DB-624 0.18(mm)
STDA9 240-328331/23 IC		05/24/2018 17:19	1	U1263886.D	DB-624 0.18(mm)
STDA9 240-328331/24 IC		05/24/2018 17:42	1	U1263887.D	DB-624 0.18(mm)
STDA9 240-328331/25 IC		05/24/2018 18:05	1	U1263888.D	DB-624 0.18(mm)
ICV 240-328331/26		05/24/2018 18:28	1	U1263889.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A3UX12 Start Date: 05/26/2018 11:09

Analysis Batch Number: 328734 End Date: 05/26/2018 22:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-328734/2		05/26/2018 11:09	1	BFB3842.D	DB-624 0.18(mm)
CCVIS 240-328734/4		05/26/2018 11:37	1	U1263925.D	DB-624 0.18(mm)
LCS 240-328734/5		05/26/2018 12:00	1	U1263926.D	DB-624 0.18(mm)
CCV 240-328734/6		05/26/2018 12:23	1	U1263927.D	DB-624 0.18(mm)
MRL 240-328734/7 MDLV		05/26/2018 12:47	1		DB-624 0.18(mm)
MRL 240-328734/8 MDLV		05/26/2018 13:10	1		DB-624 0.18(mm)
MB 240-328734/9		05/26/2018 13:33	1	U1263930.D	DB-624 0.18(mm)
ZZZZZ		05/26/2018 13:57	4		DB-624 0.18(mm)
ZZZZZ		05/26/2018 14:20	4		DB-624 0.18(mm)
ZZZZZ		05/26/2018 14:43	4		DB-624 0.18(mm)
ZZZZZ		05/26/2018 15:30	10000		DB-624 0.18(mm)
ZZZZZ		05/26/2018 15:53	100		DB-624 0.18(mm)
ZZZZZ		05/26/2018 16:16	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 16:40	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 17:03	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 17:26	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 17:50	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 18:13	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 18:36	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 18:59	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 19:23	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 19:46	1		DB-624 0.18(mm)
ZZZZZ		05/26/2018 20:10	16.67		DB-624 0.18(mm)
ZZZZZ		05/26/2018 20:33	1		DB-624 0.18(mm)
240-95742-1		05/26/2018 20:56	1	U1263949.D	DB-624 0.18(mm)
240-95742-2		05/26/2018 21:19	1	U1263950.D	DB-624 0.18(mm)
240-95742-3		05/26/2018 21:42	1	U1263951.D	DB-624 0.18(mm)
ZZZZZ		05/26/2018 22:06	1.67		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A3UX12 Start Date: 05/27/2018 09:07

Analysis Batch Number: 328770 End Date: 05/27/2018 18:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-328770/1		05/27/2018 09:07	1	BFB3843.D	DB-624 0.18(mm)
CCVIS 240-328770/4		05/27/2018 09:28	1	U1263956.D	DB-624 0.18(mm)
LCS 240-328770/5		05/27/2018 09:52	1	U1263957.D	DB-624 0.18(mm)
CCV 240-328770/6		05/27/2018 10:15	1	U1263958.D	DB-624 0.18(mm)
MRL 240-328770/7 MDLV		05/27/2018 10:38	1		DB-624 0.18(mm)
MRL 240-328770/8 MDLV		05/27/2018 11:01	1		DB-624 0.18(mm)
MB 240-328770/9		05/27/2018 11:24	1	U1263961.D	DB-624 0.18(mm)
ZZZZZ		05/27/2018 12:00	5		DB-624 0.18(mm)
ZZZZZ		05/27/2018 12:23	5		DB-624 0.18(mm)
ZZZZZ		05/27/2018 12:46	5		DB-624 0.18(mm)
ZZZZZ		05/27/2018 13:33	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 13:56	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 14:20	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 14:43	1		DB-624 0.18(mm)
240-95742-4		05/27/2018 15:06	1	U1263970.D	DB-624 0.18(mm)
240-95742-5		05/27/2018 15:29	1	U1263971.D	DB-624 0.18(mm)
240-95742-6		05/27/2018 15:52	1	U1263972.D	DB-624 0.18(mm)
240-95742-7		05/27/2018 16:16	1	U1263973.D	DB-624 0.18(mm)
ZZZZZ		05/27/2018 16:39	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 17:02	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 17:26	1		DB-624 0.18(mm)
ZZZZZ		05/27/2018 17:49	625		DB-624 0.18(mm)
ZZZZZ		05/27/2018 18:12	625		DB-624 0.18(mm)
ZZZZZ		05/27/2018 18:36	40		DB-624 0.18(mm)
ZZZZZ		05/27/2018 18:59	1		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
BFB 240-328331/1		8260C		1 mL	5 mL				
STD8260 240-328331/10 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
STD8260 240-328331/11 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-328331/12 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
ICIS 240-328331/13		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-328331/14 IC		8260C		5 mL	5 mL	2 uL	24 uL		24 uL
STD8260 240-328331/15 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-328331/16 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
ICV 240-328331/17		8260C		5 mL	5 mL	2 uL		2 uL	
STDA9 240-328331/20 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/21 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/22 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/23 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/24 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/25 IC		8260C		5 mL	5 mL	2 uL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
ICV 240-328331/26		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
BFB 240-328331/1		8260C		1 uL					
STD8260 240-328331/10 IC		8260C							
STD8260 240-328331/11 IC		8260C							
STD8260 240-328331/12 IC		8260C							
ICIS 240-328331/13		8260C							
STD8260 240-328331/14 IC		8260C							
STD8260 240-328331/15 IC		8260C							
STD8260 240-328331/16 IC		8260C							
ICV 240-328331/17		8260C				16 uL	16 uL	16 uL	
STDA9 240-328331/20 IC		8260C							0.4 uL
STDA9 240-328331/21 IC		8260C							0.8 uL
STDA9 240-328331/22 IC		8260C							8 uL
STDA9 240-328331/23 IC		8260C							16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
STDA9 240-328331/24 IC		8260C							32 uL
STDA9 240-328331/25 IC		8260C							48 uL
ICV 240-328331/26		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
BFB 240-328331/1		8260C							
STD8260 240-328331/10 IC		8260C		0.4 uL	0.4 uL				
STD8260 240-328331/11 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-328331/12 IC		8260C		8 uL	8 uL				
ICIS 240-328331/13		8260C		16 uL	16 uL				
STD8260 240-328331/14 IC		8260C		24 uL	24 uL				
STD8260 240-328331/15 IC		8260C		32 uL	32 uL				
STD8260 240-328331/16 IC		8260C		48 uL	48 uL				
ICV 240-328331/17		8260C							
STDA9 240-328331/20 IC		8260C							
STDA9 240-328331/21 IC		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
STDA9 240-328331/22 IC		8260C							
STDA9 240-328331/23 IC		8260C							
STDA9 240-328331/24 IC		8260C							
STDA9 240-328331/25 IC		8260C							
ICV 240-328331/26		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328734 Batch Start Date: 05/26/18 11:09 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00248
BFB 240-328734/2		8260C		1 mL	5 mL				
CCVIS 240-328734/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-328734/5		8260C		5 mL	5 mL		2 uL	2 uL	
CCV 240-328734/6		8260C		5 mL	5 mL		2 uL		
MB 240-328734/9		8260C		5 mL	5 mL		2 uL	2 uL	
240-95742-A-1	TB-051518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-95742-B-2	MSA-MW-25S-051518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-95742-B-3	MSA-MW-25I-051518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00234	vmfasgw 00259	vmfaspw 00252	vmra9w 00252	vmrgas 00248
BFB 240-328734/2		8260C		1 uL					
CCVIS 240-328734/4		8260C							16 uL
LCS 240-328734/5		8260C			16 uL	16 uL	16 uL		
CCV 240-328734/6		8260C						16 uL	
MB 240-328734/9		8260C							
240-95742-A-1	TB-051518	8260C	T						
240-95742-B-2	MSA-MW-25S-051518	8260C	T						
240-95742-B-3	MSA-MW-25I-051518	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-328734/2		8260C							
CCVIS 240-328734/4		8260C		16 uL					
LCS 240-328734/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328734 Batch Start Date: 05/26/18 11:09 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
CCV 240-328734/6		8260C							
MB 240-328734/9		8260C							
240-95742-A-1	TB-051518	8260C	T						
240-95742-B-2	MSA-MW-25S-051518	8260C	T						
240-95742-B-3	MSA-MW-25I-051518	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328770 Batch Start Date: 05/27/18 09:07 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00248
BFB 240-328770/1		8260C		1 mL	5 mL				
CCVIS 240-328770/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-328770/5		8260C		5 mL	5 mL		2 uL	2 uL	
CCV 240-328770/6		8260C		5 mL	5 mL		2 uL		
MB 240-328770/9		8260C		5 mL	5 mL		2 uL	2 uL	
240-95742-B-4	MSA-MW-4-051518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-95742-B-5	MSA-MW-20S-051618	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-95742-B-6	MSA-MW-20I-051618	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-95742-B-7	MSA-MW-20D-051618	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00234	vmfasgw 00259	vmfaspw 00252	vmra9w 00252	vmrgas 00248
BFB 240-328770/1		8260C		1 uL					
CCVIS 240-328770/4		8260C							16 uL
LCS 240-328770/5		8260C			16 uL	16 uL	16 uL		
CCV 240-328770/6		8260C						16 uL	
MB 240-328770/9		8260C							
240-95742-B-4	MSA-MW-4-051518	8260C	T						
240-95742-B-5	MSA-MW-20S-051618	8260C	T						
240-95742-B-6	MSA-MW-20I-051618	8260C	T						
240-95742-B-7	MSA-MW-20D-051618	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-328770/1		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328770 Batch Start Date: 05/27/18 09:07 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
CCVIS 240-328770/4		8260C		16 uL					
LCS 240-328770/5		8260C							
CCV 240-328770/6		8260C							
MB 240-328770/9		8260C							
240-95742-B-4	MSA-MW-4-051518	8260C	T						
240-95742-B-5	MSA-MW-20S-051618	8260C	T						
240-95742-B-6	MSA-MW-20I-051618	8260C	T						
240-95742-B-7	MSA-MW-20D-051618	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
MSA-MW-25S-051518	240-95742-2	56	55	63	60	73	90
MSA-MW-25I-051518	240-95742-3	62	50	72	67	85	90
MSA-MW-4-051518	240-95742-4	66	61	69	64	93	83
MSA-MW-20S-051618	240-95742-5	69	47	78	74	94	89
MSA-MW-20I-051618	240-95742-6	59	47	72	67	87	80
MSA-MW-20D-051618	240-95742-7	64	63	76	75	85	94
	MB 240-327719/8-A	57	44	69	70	72	89
	MB 240-327918/12-A	56	52	65	66	68	91
	LCS 240-327719/9-A	72	49	88	83	106	93
	LCS 240-327918/13-A	65	53	72	67	89	85

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80524008.D

Lab ID: LCS 240-327719/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	12.7	40	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80524006.D

Lab ID: LCS 240-327918/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	13.5	42	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: 80524007.D Lab Sample ID: MB 240-327719/8-A

Matrix: Water Date Extracted: 05/21/2018 08:02

Instrument ID: A4AG2 Date Analyzed: 05/24/2018 09:02

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-327719/9-A	80524008.D	05/24/2018 09:26
MSA-MW-25S-051518	240-95742-2	80524009.D	05/24/2018 09:51
MSA-MW-25I-051518	240-95742-3	80524010.D	05/24/2018 10:15
MSA-MW-4-051518	240-95742-4	80524011.D	05/24/2018 10:40

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327719/8-A

Matrix: Water | Lab File ID: 80524007.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/21/2018 08:02

Sample wt/vol: 250(mL) | Date Analyzed: 05/24/2018 09:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-120
367-12-4	2-Fluorophenol (Surr)	57		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: 80524005.D Lab Sample ID: MB 240-327918/12-A

Matrix: Water Date Extracted: 05/22/2018 07:53

Instrument ID: A4AG2 Date Analyzed: 05/24/2018 08:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-327918/13-A	80524006.D	05/24/2018 08:37
MSA-MW-20S-051618	240-95742-5	80524012.D	05/24/2018 11:04
MSA-MW-20I-051618	240-95742-6	80524013.D	05/24/2018 11:29
MSA-MW-20D-051618	240-95742-7	80524014.D	05/24/2018 11:53

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327918/12-A

Matrix: Water | Lab File ID: 80524005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/22/2018 07:53

Sample wt/vol: 250(mL) | Date Analyzed: 05/24/2018 08:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328299 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		35-120
367-12-4	2-Fluorophenol (Surr)	56		17-120
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: 80522001.D DFTPP Injection Date: 05/22/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:44

Analysis Batch No.: 327899

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.5	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	40.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	10.6	
442	40.0 - 110.0% of mass 198	72.1	
443	15.0 - 24.0% of mass 442	13.8	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-327899/2	80522002.D	05/22/2018	07:02
	STD8 240-327899/3	80522003.D	05/22/2018	07:26
	STD7 240-327899/4	80522004.D	05/22/2018	07:51
	STD6 240-327899/5	80522005.D	05/22/2018	08:16
	STD5 240-327899/6	80522006.D	05/22/2018	08:41
	STD4 240-327899/7	80522007.D	05/22/2018	09:06
	STD3 240-327899/8	80522008.D	05/22/2018	09:31
	STD2 240-327899/9	80522009.D	05/22/2018	09:55
	STD1 240-327899/10	80522010.D	05/22/2018	10:20
	ICV 240-327899/11	80522011.D	05/22/2018	10:45

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-327899/10	80522010.D
Level 2	STD2 240-327899/9	80522009.D
Level 3	STD3 240-327899/8	80522008.D
Level 4	STD4 240-327899/7	80522007.D
Level 5	STD5 240-327899/6	80522006.D
Level 6	STD6 240-327899/5	80522005.D
Level 7	STD7 240-327899/4	80522004.D
Level 8	STD8 240-327899/3	80522003.D
Level 9	STD9 240-327899/2	80522002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2629	0.2709 0.3448	0.2953 0.2859	0.2820 0.2887	0.2688	Ave		0.2874				8.9		20.0			
N-Nitrosodimethylamine	1.0029	0.9052 1.0332	0.9282 1.0058	0.9513 1.0373	1.0161	Ave		0.9850				5.1		20.0			
Pyridine	0.9820 0.8006	0.7708 1.1099	0.7848 0.9630	0.7922 0.9506	0.8115	Ave		0.8850				13.5		20.0			
Benzaldehyde	+++++ 1.0761	1.5315 0.9497	1.4329 0.8429	1.4386 0.7958	1.1853	Qua	80.573	1.1646	-0.000079		0.0100				0.9990		0.9900
Phenol	1.7224	1.9152 1.8101	1.8655 1.7980	1.8641 1.8374	1.7723	Ave		1.8231			0.8000	3.3		20.0			
Aniline	2.7455	2.4901 2.6053	2.5265 2.5047	2.6376 2.5027	2.4985	Ave		2.5639				3.6		20.0			
Bis(2-chloroethyl)ether	1.6877	1.9125 1.7200	1.9111 1.6678	1.9357 1.8965	1.9013	Ave		1.8291			0.7000	6.3		20.0			
n-Decane	1.6988	1.7320 1.6695	1.7234 1.5432	1.7123 1.5187	1.7097	Ave		1.6635				5.1		20.0			
2-Chlorophenol	1.3590	1.4151 1.5273	1.4404 1.4840	1.5147 1.5001	1.5472	Ave		1.4735			0.8000	4.3		20.0			
1,3-Dichlorobenzene	1.6491	1.5983 1.6943	1.6643 1.6233	1.6544 1.6486	1.6662	Ave		1.6498				1.8		20.0			
1,4-Dichlorobenzene	1.7043	1.7471 1.7015	1.6918 1.6759	1.6923 1.6784	1.7044	Ave		1.6995				1.3		20.0			
Benzyl alcohol	1.1278	0.9432 1.0823	1.0008 1.0440	1.0406 1.0714	1.0594	Ave		1.0462				5.3		20.0			
1,2-Dichlorobenzene	1.6143	1.6616 1.6341	1.6260 1.5781	1.6634 1.6171	1.6255	Ave		1.6275				1.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.5272	1.4588 1.4768	1.4211 1.4371	1.4998 1.4714	1.4203	Ave		1.4641			0.7000	2.6		20.0			
bis (2-chloroisopropyl) ether	2.6612	2.9674 2.5374	2.8726 2.4256	3.0229 2.4737	2.7391	Ave		2.7125				8.4		20.0			
Indene	2.8544	3.0860 2.8207	2.9745 2.6110	3.1405 2.6400	2.9825	Ave		2.8887				6.7		20.0			
3 & 4 Methylphenol	1.5870	1.4768 1.5140	1.3841 1.4259	1.4318 1.4486	1.5042	Ave		1.4716				4.3		20.0			
N-Nitrosodi-n-propylamine	1.2864	1.2988 1.2390	1.3062 1.1854	1.3904 1.2116	1.3126	Ave		1.2788			0.5000	5.1		20.0			
Acetophenone	2.2911	2.3193 2.2318	2.2571 2.1432	2.4517 2.2317	2.3152	Ave		2.2801			0.0100	3.9		20.0			
Hexachloroethane	0.6513	0.6588 0.6510	0.6426 0.6367	0.6518 0.6526	0.6549	Ave		0.6500			0.3000	1.1		20.0			
Nitrobenzene	0.4050	0.3727 0.3939	0.3855 0.3927	0.3973 0.3876	0.4140	Ave		0.3936			0.2000	3.2		20.0			
Isophorone	0.7173	0.6673 0.7050	0.7165 0.6959	0.7363 0.6841	0.7417	Ave		0.7080			0.4000	3.6		20.0			
2,4-Dimethylphenol	0.3481	0.3036 0.3342	0.3250 0.3312	0.3293 0.3347	0.3517	Ave		0.3322			0.2000	4.4		20.0			
2-Nitrophenol	0.1757	0.1162 0.1772	0.1336 0.1806	0.1502 0.1751	0.1685	Ave		0.1596			0.1000	14.9		20.0			
Benzoic acid	0.1493	+++++ 0.1564	0.0700 0.1589	0.1000 0.1553	0.1314	Lin1	-21.08	0.1611							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.4455	0.4384 0.4262	0.4546 0.4281	0.4703 0.4112	0.4580	Ave		0.4416			0.3000	4.4		20.0			
2,4-Dichlorophenol	0.2609	0.2089 0.2515	0.2233 0.2440	0.2207 0.2468	0.2472	Ave		0.2379			0.2000	7.6		20.0			
1,2,4-Trichlorobenzene	0.2940	0.2748 0.2950	0.2820 0.3001	0.2840 0.3019	0.2910	Ave		0.2904				3.2		20.0			
Naphthalene	1.1251 1.0950	1.0735 1.0756	1.1103 1.0620	1.1091 1.0371	1.1234	Ave		1.0901			0.7000	2.8		20.0			
4-Chloroaniline	0.5908	0.5199 0.5802	0.5505 0.5253	0.5843 0.4826	0.5958	Ave		0.5537			0.0100	7.4		20.0			
2,6-Dichlorophenol	0.2662	0.2169 0.2700	0.2367 0.2700	0.2474 0.2735	0.2651	Ave		0.2557				7.9		20.0			
Hexachlorobutadiene	0.1495	0.1412 0.1537	0.1415 0.1556	0.1463 0.1591	0.1478	Ave		0.1493			0.0100	4.3		20.0			
Caprolactam	0.0776 0.1179	0.0934 0.1026	0.1059 0.1165	0.1184 0.1164	0.1204	Ave		0.1077			0.0100	13.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.2966	0.2231 0.2981	0.2266 0.2959	0.2560 0.2911	0.2880	Ave		0.2719			0.2000	11.8		20.0			
2-Methylnaphthalene	0.7045 0.7196	0.7017 0.7150	0.7216 0.7187	0.7219 0.7136	0.7329	Ave		0.7166			0.4000	1.3		20.0			
1-Methylnaphthalene	0.6497 0.6732	0.6382 0.6746	0.6675 0.6785	0.6891 0.6721	0.6960	Ave		0.6710				2.7		20.0			
Hexachlorocyclopentadiene	0.3422	0.2348 0.3566	0.2489 0.3696	0.2752 0.3781	0.3116	Ave		0.3146			0.0500	17.8		20.0			
1,2,4,5-Tetrachlorobenzene	0.5625	0.5168 0.5749	0.5005 0.5879	0.5167 0.5896	0.5447	Ave		0.5492			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3583	0.2425 0.3660	0.2680 0.3685	0.2997 0.3673	0.3375	Ave		0.3260			0.2000	15.3		20.0			
2,4,5-Trichlorophenol	0.3583	0.1795 0.3789	0.1923 0.3698	0.2393 0.3872	0.3275	Lin1	-15.80	0.3822			0.2000				0.9970		0.9900
1,1'-Biphenyl	1.5954 1.6950	1.6603 1.6804	1.6388 1.6952	1.6975 1.6357	1.6805	Ave		1.6643			0.0100	2.1		20.0			
2-Chloronaphthalene	1.2518 1.2794	1.2360 1.2834	1.2046 1.2902	1.2508 1.2763	1.2641	Ave		1.2596			0.8000	2.2		20.0			
2-Nitroaniline	0.4329	0.2906 0.4246	0.3328 0.4165	0.3730 0.3985	0.4161	Ave		0.3856			0.0100	13.1		20.0			
Dimethyl phthalate	1.4384	1.3405 1.4304	1.3711 1.4193	1.4138 1.3579	1.4222	Ave		1.3992			0.0100	2.6		20.0			
1,3-Dinitrobenzene	0.2246	0.1086 0.2281	0.1388 0.2255	0.1683 0.2240	0.2094	Lin1	-7.682	0.2289							0.9990		0.9900
2,6-Dinitrotoluene	0.3263	0.2100 0.3298	0.2570 0.3257	0.3020 0.3202	0.3228	Ave		0.2992				14.5		20.0			
Acenaphthylene	1.7375 1.9054	1.7478 1.8832	1.7630 1.8870	1.8831 1.8587	1.8900	Ave		1.8395			0.9000	3.7		20.0			
3-Nitroaniline	0.3312	0.2083 0.2925	0.2615 0.2759	0.3170 0.2638	0.3370	Ave		0.2859			0.0100	15.0		20.0			
2,4-Dinitrophenol	0.1307	+++++ 0.1405	0.0635 0.1489	0.0762 0.1538	0.1147	Lin1	-24.28	0.1523			0.0100				0.9960		0.9900
4-Nitrophenol	0.1952	+++++ 0.1983	0.1273 0.1912	0.1583 0.1925	0.1840	Ave		0.1781				14.7		20.0			
Acenaphthene	1.3248 1.3377	1.3298 1.3360	1.3237 1.3156	1.3383 1.2834	1.3312	Ave		1.3245			0.9000	1.3		20.0			
2,4-Dinitrotoluene	0.4090	0.2441 0.4104	0.2997 0.4071	0.3565 0.4118	0.4040	Ave		0.3678			0.2000	17.3		20.0			
Dibenzofuran	1.6770 1.8056	1.7405 1.8159	1.7302 1.8172	1.7942 1.7555	1.7834	Ave		1.7688			0.8000	2.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.2516	0.1153 0.2533	0.1615 0.2649	0.2108 0.2681	0.2511	Lin1	-9.016	0.2667			0.0100				0.9990		0.9900
Hexadecane	1.0403	1.0967 0.9762	1.1179 0.9304	1.1636 0.8694	1.1011	Ave		1.0370				9.9		20.0			
Diethyl phthalate	1.4850	1.4935 1.4550	1.4226 1.4199	1.4848 1.3975	1.4832	Ave		1.4552			0.0100	2.6		20.0			
4-Chlorophenyl phenyl ether	0.6809	0.6084 0.6929	0.6225 0.6912	0.6445 0.6870	0.6655	Ave		0.6616			0.4000	5.0		20.0			
4-Nitroaniline	0.3009	0.2625 0.2841	0.3068 0.2572	0.3336 0.2314	0.3036	Ave		0.2850			0.0100	11.6		20.0			
Fluorene	1.4196 1.5042	1.3477 1.5095	1.3930 1.4930	1.4522 1.4565	1.4760	Ave		1.4502			0.9000	3.8		20.0			
4,6-Dinitro-2-methylphenol	0.1056	0.0397 0.1193	0.0480 0.1226	0.0649 0.1192	0.0853	Lin1	-12.90	0.1200			0.0100				0.9930		0.9900
Diphenylamine	0.7554	0.6395 0.7641	0.6805 0.7557	0.6960 0.7326	0.7447	Ave		0.7211				6.2		20.0			
N-Nitrosodiphenylamine	0.6421	0.5436 0.6495	0.5784 0.6423	0.5916 0.6227	0.6330	Ave		0.6129			0.0100	6.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.0304	0.9224 1.0250	0.9795 0.9870	0.9873 0.9238	1.0267	Ave		0.9850				4.4		20.0			
Azobenzene	1.0304	0.9202 1.0250	0.9785 0.9874	0.9872 0.9238	1.0273	Ave		0.9850				4.4		20.0			
4-Bromophenyl phenyl ether	0.2222	0.1818 0.2343	0.1923 0.2365	0.1972 0.2308	0.2086	Ave		0.2130			0.1000	9.8		20.0			
Atrazine	0.1877 0.2371	0.1937 0.2403	0.2036 0.2347	0.2010 0.2235	0.2189	Ave		0.2156			0.0100	9.2		20.0			
Hexachlorobenzene	0.1843 0.2374	0.1910 0.2461	0.2005 0.2486	0.2013 0.2474	0.2189	Ave		0.2195			0.1000	11.8		20.0			
n-Octadecane	0.6596	0.5966 0.6517	0.6480 0.6176	0.6617 0.5679	0.6736	Ave		0.6346				5.8		20.0			
Pentachlorophenol	0.1143	+++++ 0.1271	0.0643 0.1341	0.0773 0.1338	0.0980	Lin1	-19.46	0.1342			0.0500				0.9960		0.9900
Phenanthrene	1.2069 1.1637	1.1065 1.1833	1.1106 1.1866	1.1278 1.1545	1.1630	Ave		1.1559			0.7000	3.0		20.0			
Anthracene	1.1103 1.2177	1.0610 1.2459	1.1117 1.2437	1.1479 1.2216	1.2003	Ave		1.1733			0.7000	5.7		20.0			
Carbazole	1.0666	0.9810 1.0853	1.0285 1.0796	1.0034 1.0534	1.0328	Ave		1.0413			0.0100	3.5		20.0			
Di-n-butyl phthalate	1.4960	1.2872 1.4739	1.3564 1.4572	1.3438 1.4227	1.4451	Ave		1.4103			0.0100	5.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0095 1.2012	1.0207 1.2183	1.0498 1.2326	1.0369 1.2112	1.1308	Ave		1.1234			0.6000	8.4		20.0			
Benzidine	 0.7317	0.2936 0.7479	0.3795 0.7188	0.5109 0.7071	0.6895	Lin1	-56.38	0.7368							0.9980		0.9900
Pyrene	1.2854 1.2223	1.1779 1.2193	1.1959 1.2082	1.1669 1.2223	1.2371	Ave		1.2150			0.6000	2.9		20.0			
Butyl benzyl phthalate	 0.6673	0.4918 0.6768	0.5400 0.6688	0.5766 0.6677	0.6531	Ave		0.6178			0.0100	11.6		20.0			
Bis(2-ethylhexyl) phthalate	 0.9380	0.8187 0.9566	0.8507 0.9428	0.8596 0.9451	0.9345	Ave		0.9058			0.0100	5.9		20.0			
3,3'-Dichlorobenzidine	 0.4877	0.3363 0.5069	0.3825 0.5016	0.4212 0.5061	0.4722	Ave		0.4518			0.0100	14.3		20.0			
Benzo[a]anthracene	1.1231 1.2085	1.1074 1.2509	1.0830 1.2331	1.1214 1.2349	1.1873	Ave		1.1722			0.8000	5.4		20.0			
Chrysene	1.1775 1.1719	1.1329 1.1973	1.1110 1.1887	1.1218 1.2034	1.1952	Ave		1.1666			0.7000	3.0		20.0			
Di-n-octyl phthalate	 1.6461	0.9344 1.7415	1.1137 1.7585	1.3615 1.7338	1.5823	Lin1	-54.57	1.7539			0.0100				0.9990		0.9900
Benzo[b]fluoranthene	0.9372 1.2090	1.0202 1.3271	1.0986 1.2858	1.1299 1.3076	1.1680	Ave		1.1648			0.7000	11.4		20.0			
Benzo[k]fluoranthene	0.9979 1.3248	1.0967 1.3389	1.2225 1.3561	1.2576 1.3516	1.3071	Ave		1.2504			0.7000	10.0		20.0			
Benzo[a]pyrene	0.8665 1.1675	0.9834 1.2367	1.0339 1.2507	1.0631 1.2498	1.1534	Ave		1.1117			0.7000	12.1		20.0			
Indeno[1,2,3-cd]pyrene	0.9270 1.3293	1.0884 1.3909	1.1436 1.4175	1.2407 1.4012	1.3160	Ave		1.2505			0.5000	13.4		20.0			
Dibenz(a,h)anthracene	0.7796 1.1367	0.8874 1.1863	0.9783 1.2162	1.0268 1.2185	1.1116	Ave		1.0602			0.4000	14.5		20.0			
Benzo[g,h,i]perylene	0.8244 1.0686	0.9325 1.0911	0.9891 1.0891	1.0433 1.0671	1.0582	Ave		1.0181			0.5000	8.7		20.0			
2-Fluorophenol (Surr)	 0.7950	0.8530 1.0832	0.9036 0.9415	0.9090 0.8433	0.9503	Ave		0.9099				9.6		20.0			
Phenol-d5 (Surr)	 1.5366	1.6730 1.6253	1.6755 1.6145	1.6338 1.6383	1.5512	Ave		1.6185				3.1		20.0			
Nitrobenzene-d5 (Surr)	0.3679 0.4001	0.3566 0.3929	0.3748 0.3873	0.3861 0.3828	0.4041	Ave		0.3836				4.0		20.0			
2-Fluorobiphenyl (Surr)	1.4658 1.4359	1.3862 1.4200	1.3634 1.4139	1.4220 1.4016	1.4075	Ave		1.4129				2.1		20.0			
2,4,6-Tribromophenol (Surr)	 0.1488	0.0816 0.1493	0.1064 0.1525	0.1244 0.1541	0.1430	Ave		0.1325				19.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Terphenyl-d14 (Surr)	0.8502 0.8409	0.7883 0.8790	0.8025 0.8773	0.8189 0.8916	0.8512	Ave		0.8444				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-327899/10	80522010.D
Level 2	STD2 240-327899/9	80522009.D
Level 3	STD3 240-327899/8	80522008.D
Level 4	STD4 240-327899/7	80522007.D
Level 5	STD5 240-327899/6	80522006.D
Level 6	STD6 240-327899/5	80522005.D
Level 7	STD7 240-327899/4	80522004.D
Level 8	STD8 240-327899/3	80522003.D
Level 9	STD9 240-327899/2	80522002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	103804	5398 216110	11579 245701	21331 308850	56845	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	395926	18036 647475	36398 864501	71961 1109557	214881	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	7184 632181	30716 1391128	61553 1655422	119851 2033584	343237	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	+++++ 849664	61034 1190395	112380 1448993	217636 1702516	501304	+++++ 2000	100 3000	200 4000	400 5000	1000
Phenol	DCBd 4	Ave	680007	38162 1134384	73155 1545418	141005 1965311	374800	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	1083930	49617 1632690	99076 2152865	199515 2676941	528374	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	666307	38107 1077914	74940 1433533	146422 2028497	402064	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	670693	34511 1046279	67583 1326422	129522 1624396	361563	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	536520	28197 957113	56483 1275533	114576 1604595	327189	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	651054	31847 1061825	65262 1395256	125143 1763348	352351	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	672844	34812 1066288	66343 1440484	128015 1795239	360433	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	445255	18793 678278	39247 897335	78713 1146018	224037	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	637308	33109 1024046	63763 1356418	125823 1729705	343755	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	602950	29067 925503	55727 1235183	113451 1573862	300357	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCBd 4	Ave	1050650	59128 1590157	112646 2084812	228664 2645931	579239	1000	50.0 1500	100 2000	200 2500	500
Indene	DCBd 4	Ave	2253817	122981 3535394	233282 4488447	475117 5647650	1261449	2000	100 3000	200 4000	400 5000	1000
3 & 4 Methylphenol	DCBd 4	Ave	626535	29427 948782	54278 1225615	108305 1549479	318105	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodi-n-propylamine	DCBd 4	Ave	507882	25879 776462	51220 1018872	105177 1295933	277586	1000	50.0 1500	100 2000	200 2500	500
Acetophenone	DCBd 4	Ave	904512	46213 1398638	88511 1842094	185457 2387088	489610	1000	50.0 1500	100 2000	200 2500	500
Hexachloroethane	DCBd 4	Ave	257131	13127 407999	25200 547237	49308 698054	138498	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene	NPT	Ave	730590	34908 1115520	68436 1478518	141356 1911733	388458	1000	50.0 1500	100 2000	200 2500	500
Isophorone	NPT	Ave	1294116	62497 1996394	127192 2619898	261963 3374458	695977	1000	50.0 1500	100 2000	200 2500	500
2,4-Dimethylphenol	NPT	Ave	628055	28437 946537	57685 1247015	117156 1650850	330028	1000	50.0 1500	100 2000	200 2500	500
2-Nitrophenol	NPT	Ave	317037	10881 501733	23707 679801	53432 863932	158086	1000	50.0 1500	100 2000	200 2500	500
Benzoic acid	NPT	Lin1	538690	+++++ 885617	24847 1196119	71181 1531950	246531	2000	+++++ 3000	200 4000	400 5000	1000
Bis(2-chloroethoxy)methane	NPT	Ave	803793	41056 1207082	80705 1611556	167338 2028342	429840	1000	50.0 1500	100 2000	200 2500	500
2,4-Dichlorophenol	NPT	Ave	470629	19565 712245	39647 918643	78504 1217580	231983	1000	50.0 1500	100 2000	200 2500	500
1,2,4-Trichlorobenzene	NPT	Ave	530374	25739 835458	50056 1129844	101057 1489413	273103	1000	50.0 1500	100 2000	200 2500	500
Naphthalene	NPT	Ave	19555 1975502	100541 3045988	197092 3997982	394603 5115704	1054248	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Chloroaniline	NPT	Ave	1065904	48687 1642933	97714 1977451	207886 2380413	559066	1000	50.0 1500	100 2000	200 2500	500
2,6-Dichlorophenol	NPT	Ave	480237	20314 764520	42010 1016430	88021 1349116	248762	1000	50.0 1500	100 2000	200 2500	500
Hexachlorobutadiene	NPT	Ave	269733	13228 435140	25111 585859	52037 784611	138658	1000	50.0 1500	100 2000	200 2500	500
Caprolactam	NPT	Ave	2699 425322	17490 581385	37583 877469	84216 1148705	226056	20.0 2000	100 3000	200 4000	400 5000	1000
4-Chloro-3-methylphenol	NPT	Ave	535123	20898 844049	40221 1114010	91078 1436080	270229	1000	50.0 1500	100 2000	200 2500	500
2-Methylnaphthalene	NPT	Ave	12244 1298313	65714 2024709	128098 2705522	256844 3519779	687781	10.0 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	11293 1214481	59768 1910274	118492 2554397	245173 3315045	653154	10.0 1000	50.0 1500	100 2000	200 2500	500
Hexachlorocyclopentadiene	ANT	Ave	 303950	10657 498214	22208 690165	48824 936601	146742	 1000	50.0 1500	100 2000	200 2500	500
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 499612	23455 803306	44662 1097673	91692 1460462	256540	 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Trichlorophenol	ANT	Ave	 318257	11006 511403	23911 688013	53181 909791	158931	 1000	50.0 1500	100 2000	200 2500	500
2,4,5-Trichlorophenol	ANT	Lin1	 318194	8145 529341	17156 690511	42454 959157	154248	 1000	50.0 1500	100 2000	200 2500	500
1,1'-Biphenyl	ANT	Ave	12802 1505411	75355 2347883	146234 3165219	301208 4051920	791423	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Chloronaphthalene	ANT	Ave	10045 1136319	56098 1793203	107484 2409083	221954 3161576	595310	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Nitroaniline	ANT	Ave	 384462	13190 593180	29699 777642	66178 987105	195964	 1000	50.0 1500	100 2000	200 2500	500
Dimethyl phthalate	ANT	Ave	 1277494	60841 1998511	122346 2650130	250863 3363769	669742	 1000	50.0 1500	100 2000	200 2500	500
1,3-Dinitrobenzene	ANT	Lin1	 199459	4931 318638	12382 421022	29863 554972	98600	 1000	50.0 1500	100 2000	200 2500	500
2,6-Dinitrotoluene	ANT	Ave	 289817	9533 460765	22930 608213	53595 793069	152018	 1000	50.0 1500	100 2000	200 2500	500
Acenaphthylene	ANT	Ave	13942 1692256	79328 2631111	157314 3523335	334152 4604290	890086	10.0 1000	50.0 1500	100 2000	200 2500	500
3-Nitroaniline	ANT	Ave	 294134	9454 408624	23337 515246	56258 653429	158716	 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrophenol	ANT	Lin1	 232120	+++++ 392656	11326 556060	27055 761979	108048	 2000	+++++ 3000	200 4000	400 5000	1000
4-Nitrophenol	ANT	Ave	 346685	+++++ 554207	22719 714079	56181 953869	173333	 2000	+++++ 3000	200 4000	400 5000	1000
Acenaphthene	ANT	Ave	10631 1188053	60356 1866569	118111 2456453	237466 3179019	626887	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrotoluene	ANT	Ave	 363281	11077 573419	26743 760140	63251 1020015	190262	 1000	50.0 1500	100 2000	200 2500	500
Dibenzofuran	ANT	Ave	13457 1603646	78993 2537177	154390 3393079	318378 4348604	839880	10.0 1000	50.0 1500	100 2000	200 2500	500
2,3,4,6-Tetrachlorophenol	ANT	Lin1	 223502	5232 353920	14412 494555	37410 664165	118256	 1000	50.0 1500	100 2000	200 2500	500
Hexadecane	ANT	Ave	 923991	49777 1363877	99753 1737324	206472 2153537	518546	 1000	50.0 1500	100 2000	200 2500	500
Diethyl phthalate	ANT	Ave	 1318898	67786 2032948	126936 2651202	263463 3461845	698514	 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	604738	27613 968172	55547 1290578	114362 1701678	313406	1000	50.0 1500	100 2000	200 2500	500
4-Nitroaniline	ANT	Ave	267222	11914 396943	27373 480151	59202 573208	142991	1000	50.0 1500	100 2000	200 2500	500
Fluorene	ANT	Ave	11391 1335987	61168 2109091	124299 2787805	257679 3608016	695106	10.0 1000	50.0 1500	100 2000	200 2500	500
4,6-Dinitro-2-methylphenol	PHN	Lin1	313428	6449 544752	15104 750621	41311 991667	138118	2000	100 3000	200 4000	400 5000	1000
Diphenylamine	PHN	Ave	952561	44113 1482312	91024 1966182	188248 2590438	512189	850	42.5 1275	85.0 1700	170 2125	425
N-Nitrosodiphenylamine	PHN	Ave	952561	44113 1482312	91024 1966182	188248 2590438	512189	1000	50.0 1500	100 2000	200 2500	500
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1528548	74854 2339373	154140 3021257	314174 3843148	830748	1000	50.0 1500	100 2000	200 2500	500
Azobenzene	PHN	Ave	1528480	74674 2339373	153997 3022348	314132 3843148	831206	1000	50.0 1500	100 2000	200 2500	500
4-Bromophenyl phenyl ether	PHN	Ave	329685	14756 534665	30265 723797	62748 960090	168808	1000	50.0 1500	100 2000	200 2500	500
Atrazine	PHN	Ave	5578 703468	31442 1097040	64082 1436812	127945 1859175	354248	20.0 2000	100 3000	200 4000	400 5000	1000
Hexachlorobenzene	PHN	Ave	2739 352111	15497 561666	31556 760897	64042 1029188	177143	10.0 1000	50.0 1500	100 2000	200 2500	500
n-Octadecane	PHN	Ave	978516	48418 1487307	101984 1890312	210577 2362414	545033	1000	50.0 1500	100 2000	200 2500	500
Pentachlorophenol	PHN	Lin1	338972	+++++ 580182	20238 820971	49215 1113374	158668	2000	+++++ 3000	200 4000	400 5000	1000
Phenanthrene	PHN	Ave	17937 1726225	89797 2700596	174776 3632152	358887 4802641	941058	10.0 1000	50.0 1500	100 2000	200 2500	500
Anthracene	PHN	Ave	16501 1806394	86107 2843510	174955 3806887	365276 5081813	971180	10.0 1000	50.0 1500	100 2000	200 2500	500
Carbazole	PHN	Ave	1582300	79608 2477057	161855 3304480	319314 4382384	835704	1000	50.0 1500	100 2000	200 2500	500
Di-n-butyl phthalate	PHN	Ave	2219247	104457 3363937	213460 4460259	427623 5918563	1169331	1000	50.0 1500	100 2000	200 2500	500
Fluoranthene	PHN	Ave	15003 1781919	82832 2780463	165210 3772996	329964 5038659	914941	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzidine	CRY	Lin1	2138885	40009 3439055	104895 4530006	290083 5928862	1039818	2000	100 3000	200 4000	400 5000	1000
Pyrene	CRY	Ave	16215 1786514	80247 2803198	165248 3807189	331261 5124600	932837	10.0 1000	50.0 1500	100 2000	200 2500	500
Butyl benzyl phthalate	CRY	Ave	975280	33506 1555940	74620 2107384	163685 2799335	492447	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1371012	55777 2199378	117559 2970910	244028 3962214	704661	1000	50.0 1500	100 2000	200 2500	500
3,3'-Dichlorobenzidine	CRY	Ave	1425585	45824 2330835	105721 3161273	239165 4243908	712066	2000	100 3000	200 4000	400 5000	1000
Benzo[a]anthracene	CRY	Ave	14168 1766254	75445 2875851	149655 3885451	318348 5177282	895273	10.0 1000	50.0 1500	100 2000	200 2500	500
Chrysene	CRY	Ave	14854 1712801	77186 2752722	153526 3745780	318446 5045317	901207	10.0 1000	50.0 1500	100 2000	200 2500	500
Di-n-octyl phthalate	PRY	Lin1	2254598	60540 3694052	140664 5078357	350943 6764981	1107832	1000	50.0 1500	100 2000	200 2500	500
Benzo[b]fluoranthene	PRY	Ave	11395 1655916	66102 2815009	138763 3713345	291250 5102220	817779	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[k]fluoranthene	PRY	Ave	12133 1814562	71056 2840035	154413 3916185	324161 5273894	915159	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[a]pyrene	PRY	Ave	10536 1599064	63720 2623429	130591 3611876	274044 4876541	807510	10.0 1000	50.0 1500	100 2000	200 2500	500
Indeno[1,2,3-cd]pyrene	PRY	Ave	11271 1820668	70523 2950405	144441 4093393	319816 5467390	921352	10.0 1000	50.0 1500	100 2000	200 2500	500
Dibenz(a,h)anthracene	PRY	Ave	9479 1556859	57497 2516471	123560 3512205	264677 4754431	778268	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[g,h,i]perylene	PRY	Ave	10023 1463622	60419 2314445	124923 3145063	268935 4163726	740884	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorophenol (Surr)	DCBd 4	Ave	313857	16997 678857	35435 809267	68760 901970	200963	1000	50.0 1500	100 2000	200 2500	500
Phenol-d5 (Surr)	DCBd 4	Ave	606639	33336 1018554	65704 1387692	123586 1752324	328033	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene-d5 (Surr)	NPT	Ave	6394 721898	33396 1112670	66527 1457938	137369 1888112	379256	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorobiphenyl (Surr)	ANT	Ave	11762 1275352	62914 1983974	121661 2639958	252334 3471801	662837	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Tribromophenol (Surr)	ANT	Ave	132133	3705 208552	9498 284667	22067 381842	67335	1000	50.0 1500	100 2000	200 2500	500
Terphenyl-d14 (Surr)	CRY	Ave	10725 1228984	53707 2020931	110895 2764473	232479 3737946	641848	10.0 1000	50.0 1500	100 2000	200 2500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2800		0.974	1.00	-2.6	30.0
N-Nitrosodimethylamine	Ave	0.9850	0.9837		0.999	1.00	-0.1	30.0
Pyridine	Ave	0.8850	0.8585		1.94	2.00	-3.0	30.0
Benzaldehyde	Qua		1.058	0.0100	2.03	2.00	1.3	30.0
Phenol	Ave	1.823	1.822	0.8000	1.00	1.00	-0.0	30.0
Aniline	Ave	2.564	2.830		1.10	1.00	10.4	30.0
Bis(2-chloroethyl)ether	Ave	1.829	1.701	0.7000	0.930	1.00	-7.0	30.0
2-Chlorophenol	Ave	1.473	1.472	0.8000	0.999	1.00	-0.1	30.0
n-Decane	Ave	1.663	1.639		0.985	1.00	-1.5	30.0
1,3-Dichlorobenzene	Ave	1.650	1.586		0.962	1.00	-3.8	30.0
1,4-Dichlorobenzene	Ave	1.699	1.643		0.967	1.00	-3.3	30.0
Benzyl alcohol	Ave	1.046	1.068		1.02	1.00	2.1	30.0
1,2-Dichlorobenzene	Ave	1.628	1.614		0.992	1.00	-0.8	30.0
2-Methylphenol	Ave	1.464	1.474	0.7000	1.01	1.00	0.7	30.0
bis (2-chloroisopropyl) ether	Ave	2.712	2.620		0.966	1.00	-3.4	30.0
Indene	Ave	2.889	2.759		1.91	2.00	-4.5	30.0
3 & 4 Methylphenol	Ave	1.472	1.508		1.02	1.00	2.5	30.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.296	0.5000	1.01	1.00	1.3	30.0
Acetophenone	Ave	2.280	2.264	0.0100	0.993	1.00	-0.7	30.0
Hexachloroethane	Ave	0.6500	0.6276	0.3000	0.965	1.00	-3.5	30.0
Nitrobenzene	Ave	0.3936	0.3981	0.2000	1.01	1.00	1.1	30.0
Isophorone	Ave	0.7080	0.7240	0.4000	1.02	1.00	2.3	30.0
2,4-Dimethylphenol	Ave	0.3322	0.3271	0.2000	0.985	1.00	-1.5	30.0
2-Nitrophenol	Ave	0.1596	0.1618	0.1000	1.01	1.00	1.4	30.0
Benzoic acid	Lin1		0.1320		1.77	2.00	-11.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4365	0.3000	0.989	1.00	-1.1	30.0
2,4-Dichlorophenol	Ave	0.2379	0.2382	0.2000	1.00	1.00	0.1	30.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2805		0.966	1.00	-3.4	30.0
Naphthalene	Ave	1.090	1.060	0.7000	0.973	1.00	-2.7	30.0
4-Chloroaniline	Ave	0.5537	0.5781	0.0100	1.04	1.00	4.4	30.0
2,6-Dichlorophenol	Ave	0.2557	0.2582		1.01	1.00	1.0	30.0
Hexachlorobutadiene	Ave	0.1493	0.1480	0.0100	0.991	1.00	-0.9	30.0
Caprolactam	Ave	0.1077	0.1115	0.0100	2.07	2.00	3.6	30.0
4-Chloro-3-methylphenol	Ave	0.2719	0.2917	0.2000	1.07	1.00	7.3	30.0
2-Methylnaphthalene	Ave	0.7166	0.6987	0.4000	0.975	1.00	-2.5	30.0
1-Methylnaphthalene	Ave	0.6710	0.6618		0.986	1.00	-1.4	30.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3526	0.0500	1.12	1.00	12.1	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5405	0.0100	0.984	1.00	-1.6	30.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3428	0.2000	1.05	1.00	5.2	30.0
2,4,5-Trichlorophenol	Lin1		0.3566	0.2000	0.974	1.00	-2.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.659	0.0100	0.997	1.00	-0.3	30.0
2-Chloronaphthalene	Ave	1.260	1.252	0.8000	0.994	1.00	-0.6	30.0
2-Nitroaniline	Ave	0.3856	0.4274	0.0100	1.11	1.00	10.8	30.0
Dimethyl phthalate	Ave	1.399	1.377	0.0100	0.984	1.00	-1.6	30.0
1,3-Dinitrobenzene	Lin1		0.2068		0.937	1.00	-6.3	30.0
2,6-Dinitrotoluene	Ave	0.2992	0.3125		1.04	1.00	4.4	30.0
Acenaphthylene	Ave	1.840	2.015	0.9000	1.10	1.00	9.6	30.0
3-Nitroaniline	Ave	0.2859	0.3001	0.0100	1.05	1.00	5.0	30.0
2,4-Dinitrophenol	Lin1		0.1216	0.0100	1.76	2.00	-12.2	30.0
4-Nitrophenol	Ave	0.1781	0.1862		2.09	2.00	4.5	30.0
Acenaphthene	Ave	1.324	1.308	0.9000	0.987	1.00	-1.3	30.0
2,4-Dinitrotoluene	Ave	0.3678	0.3852	0.2000	1.05	1.00	4.7	30.0
Dibenzofuran	Ave	1.769	1.750	0.8000	0.990	1.00	-1.0	30.0
2,3,4,6-Tetrachlorophenol	Lin1		0.2419	0.0100	0.941	1.00	-5.9	30.0
Hexadecane	Ave	1.037	1.039		1.00	1.00	0.2	30.0
Diethyl phthalate	Ave	1.455	1.430	0.0100	0.982	1.00	-1.8	30.0
4-Chlorophenyl phenyl ether	Ave	0.6616	0.6364	0.4000	0.962	1.00	-3.8	30.0
4-Nitroaniline	Ave	0.2850	0.2772	0.0100	0.973	1.00	-2.7	30.0
Fluorene	Ave	1.450	1.465	0.9000	1.01	1.00	1.0	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1141	0.0100	2.01	2.00	0.5	30.0
Diphenylamine	Ave	0.7211	0.7395		0.872	0.850	2.6	30.0
N-Nitrosodiphenylamine	Ave	0.6129	0.6286	0.0100	1.03	1.00	2.6	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9853	1.038		1.05	1.00	5.4	30.0
Azobenzene	Ave	0.9850	1.037		1.05	1.00	5.3	30.0
4-Bromophenyl phenyl ether	Ave	0.2130	0.2140	0.1000	1.00	1.00	0.5	30.0
Atrazine	Ave	0.2156	0.2307	0.0100	2.14	2.00	7.0	30.0
Hexachlorobenzene	Ave	0.2195	0.2332	0.1000	1.06	1.00	6.2	30.0
n-Octadecane	Ave	0.6346	0.6710		1.06	1.00	5.7	30.0
Pentachlorophenol	Lin1		0.1177	0.0500	1.90	2.00	-5.0	30.0
Phenanthrene	Ave	1.156	1.135	0.7000	0.982	1.00	-1.8	30.0
Anthracene	Ave	1.173	1.176	0.7000	1.00	1.00	0.2	30.0
Carbazole	Ave	1.041	0.996	0.0100	0.956	1.00	-4.4	30.0
Di-n-butyl phthalate	Ave	1.410	1.471	0.0100	1.04	1.00	4.3	30.0
Fluoranthene	Ave	1.123	1.183	0.6000	1.05	1.00	5.3	30.0
Benzidine	Lin1		0.5903		1.68	2.00	-16.1	30.0
Pyrene	Ave	1.215	1.197	0.6000	0.985	1.00	-1.5	30.0
Butyl benzyl phthalate	Ave	0.6178	0.6494	0.0100	1.05	1.00	5.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.9058	0.9114	0.0100	1.01	1.00	0.6	30.0
3,3'-Dichlorobenzidine	Ave	0.4518	0.3732	0.0100	1.65	2.00	-17.4	30.0
Benzo[a]anthracene	Ave	1.172	1.171	0.8000	0.999	1.00	-0.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.167	1.138	0.7000	0.975	1.00	-2.5	30.0
Di-n-octyl phthalate	Lin1		1.600	0.0100	0.944	1.00	-5.6	30.0
Benzo[b]fluoranthene	Ave	1.165	1.194	0.7000	1.02	1.00	2.5	30.0
Benzo[k]fluoranthene	Ave	1.250	1.311	0.7000	1.05	1.00	4.8	30.0
Benzo[a]pyrene	Ave	1.112	1.169	0.7000	1.05	1.00	5.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.251	1.271	0.5000	1.02	1.00	1.6	30.0
Dibenz(a,h)anthracene	Ave	1.060	1.104	0.4000	1.04	1.00	4.1	30.0
Benzo[g,h,i]perylene	Ave	1.018	0.997	0.5000	0.980	1.00	-2.0	30.0
2-Fluorophenol (Surr)	Ave	0.9099	0.9492		1.04	1.00	4.3	30.0
Phenol-d5 (Surr)	Ave	1.619	1.690		1.04	1.00	4.4	30.0
Nitrobenzene-d5 (Surr)	Ave	0.3836	0.4028		1.05	1.00	5.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.413	1.455		1.03	1.00	2.9	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1325	0.1460		1.10	1.00	10.2	30.0
Terphenyl-d14 (Surr)	Ave	0.8444	0.8699		1.03	1.00	3.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab File ID: 80524001.D DFTPP Injection Date: 05/24/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:35

Analysis Batch No.: 328299

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.6	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.8	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.7	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	66.1	
443	15.0 - 24.0% of mass 442	12.8	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-328299/2	80524002.D	05/24/2018	06:52
	STD6 240-328299/3	80524003.D	05/24/2018	07:24
	STD6 240-328299/4	80524004.D	05/24/2018	07:48
	MB 240-327918/12-A	80524005.D	05/24/2018	08:13
	LCS 240-327918/13-A	80524006.D	05/24/2018	08:37
	MB 240-327719/8-A	80524007.D	05/24/2018	09:02
	LCS 240-327719/9-A	80524008.D	05/24/2018	09:26
MSA-MW-25S-051518	240-95742-2	80524009.D	05/24/2018	09:51
MSA-MW-25I-051518	240-95742-3	80524010.D	05/24/2018	10:15
MSA-MW-4-051518	240-95742-4	80524011.D	05/24/2018	10:40
MSA-MW-20S-051618	240-95742-5	80524012.D	05/24/2018	11:04
MSA-MW-20I-051618	240-95742-6	80524013.D	05/24/2018	11:29
MSA-MW-20D-051618	240-95742-7	80524014.D	05/24/2018	11:53

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Lab Sample ID: STD6 240-328299/2 | Calibration Date: 05/24/2018 06:52

Instrument ID: A4AG2 | Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/22/2018 10:20

Lab File ID: 80524002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2482		0.864	1.00	-13.6	20.0
N-Nitrosodimethylamine	Ave	0.9850	0.998		1.01	1.00	1.3	20.0
Pyridine	Ave	0.8850	0.7958		1.80	2.00	-10.1	20.0
Benzaldehyde	Qua		1.134	0.0100	2.21	2.00	10.6	20.0
Phenol	Ave	1.823	1.667	0.8000	0.915	1.00	-8.5	20.0
Aniline	Ave	2.564	2.679		1.04	1.00	4.5	20.0
Bis(2-chloroethyl)ether	Ave	1.829	1.763	0.7000	0.964	1.00	-3.6	20.0
2-Chlorophenol	Ave	1.473	1.540	0.8000	1.05	1.00	4.5	20.0
n-Decane	Ave	1.663	1.686		1.01	1.00	1.3	20.0
1,3-Dichlorobenzene	Ave	1.650	1.626		0.986	1.00	-1.4	20.0
1,4-Dichlorobenzene	Ave	1.699	1.677		0.987	1.00	-1.3	20.0
Benzyl alcohol	Ave	1.046	1.039		0.993	1.00	-0.7	20.0
1,2-Dichlorobenzene	Ave	1.628	1.651		1.01	1.00	1.4	20.0
2-Methylphenol	Ave	1.464	1.425	0.7000	0.973	1.00	-2.7	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	2.853		1.05	1.00	5.2	20.0
Indene	Ave	2.889	2.974		2.06	2.00	2.9	20.0
3 & 4 Methylphenol	Ave	1.472	1.426		0.969	1.00	-3.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.333	0.5000	1.04	1.00	4.2	20.0
Acetophenone	Ave	2.280	2.326	0.0100	1.02	1.00	2.0	20.0
Hexachloroethane	Ave	0.6500	0.6780	0.3000	1.04	1.00	4.3	20.0
Nitrobenzene	Ave	0.3936	0.4165	0.2000	1.06	1.00	5.8	20.0
Isophorone	Ave	0.7080	0.7408	0.4000	1.05	1.00	4.6	20.0
2,4-Dimethylphenol	Ave	0.3322	0.3323	0.2000	1.00	1.00	0.0	20.0
2-Nitrophenol	Ave	0.1596	0.1895	0.1000	1.19	1.00	18.7	20.0
Benzoic acid	Lin1		0.1707		2.25	2.00	12.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4569	0.3000	1.03	1.00	3.5	20.0
2,4-Dichlorophenol	Ave	0.2379	0.2362	0.2000	0.993	1.00	-0.7	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2896		0.997	1.00	-0.3	20.0
Naphthalene	Ave	1.090	1.114	0.7000	1.02	1.00	2.2	20.0
4-Chloroaniline	Ave	0.5537	0.5955	0.0100	1.08	1.00	7.6	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2633		1.03	1.00	3.0	20.0
Hexachlorobutadiene	Ave	0.1493	0.1521	0.0100	1.02	1.00	1.8	20.0
Caprolactam	Ave	0.1077	0.1169	0.0100	2.17	2.00	8.5	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.3029	0.2000	1.11	1.00	11.4	20.0
2-Methylnaphthalene	Ave	0.7166	0.7351	0.4000	1.03	1.00	2.6	20.0
1-Methylnaphthalene	Ave	0.6710	0.6903		1.03	1.00	2.9	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3372	0.0500	1.07	1.00	7.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5744	0.0100	1.05	1.00	4.6	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3711	0.2000	1.14	1.00	13.8	20.0
2,4,5-Trichlorophenol	Lin1		0.3755	0.2000	1.02	1.00	2.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Lab Sample ID: STD6 240-328299/2 | Calibration Date: 05/24/2018 06:52

Instrument ID: A4AG2 | Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/22/2018 10:20

Lab File ID: 80524002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.712	0.0100	1.03	1.00	2.8	20.0
2-Chloronaphthalene	Ave	1.260	1.286	0.8000	1.02	1.00	2.1	20.0
2-Nitroaniline	Ave	0.3856	0.4566	0.0100	1.18	1.00	18.4	20.0
Dimethyl phthalate	Ave	1.399	1.395	0.0100	0.997	1.00	-0.3	20.0
1,3-Dinitrobenzene	Lin1		0.2279		1.03	1.00	2.9	20.0
2,6-Dinitrotoluene	Ave	0.2992	0.3242		1.08	1.00	8.3	20.0
Acenaphthylene	Ave	1.840	1.875	0.9000	1.02	1.00	1.9	20.0
3-Nitroaniline	Ave	0.2859	0.3487	0.0100	1.22	1.00	22.0*	20.0
2,4-Dinitrophenol	Lin1		0.1528	0.0100	2.17	2.00	8.3	20.0
4-Nitrophenol	Ave	0.1781	0.1995		2.24	2.00	12.0	20.0
Acenaphthene	Ave	1.324	1.388	0.9000	1.05	1.00	4.8	20.0
2,4-Dinitrotoluene	Ave	0.3678	0.3995	0.2000	1.09	1.00	8.6	20.0
Dibenzofuran	Ave	1.769	1.798	0.8000	1.02	1.00	1.7	20.0
2,3,4,6-Tetrachlorophenol	Lin1		0.2709	0.0100	1.05	1.00	5.0	20.0
Hexadecane	Ave	1.037	1.109		1.07	1.00	6.9	20.0
Diethyl phthalate	Ave	1.455	1.479	0.0100	1.02	1.00	1.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6616	0.6714	0.4000	1.01	1.00	1.5	20.0
4-Nitroaniline	Ave	0.2850	0.3573	0.0100	1.25	1.00	25.4*	20.0
Fluorene	Ave	1.450	1.513	0.9000	1.04	1.00	4.3	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1241	0.0100	2.18	2.00	8.8	20.0
Diphenylamine	Ave	0.7211	0.7882		0.929	0.850	9.3	20.0
N-Nitrosodiphenylamine	Ave	0.6129	0.6700	0.0100	1.09	1.00	9.3	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9853	1.087		1.10	1.00	10.4	20.0
Azobenzene	Ave	0.9850	1.087		1.10	1.00	10.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2130	0.2258	0.1000	1.06	1.00	6.0	20.0
Atrazine	Ave	0.2156	0.2482	0.0100	2.30	2.00	15.1	20.0
Hexachlorobenzene	Ave	0.2195	0.2419	0.1000	1.10	1.00	10.2	20.0
n-Octadecane	Ave	0.6346	0.7204		1.14	1.00	13.5	20.0
Pentachlorophenol	Lin1		0.1324	0.0500	2.12	2.00	5.9	20.0
Phenanthrene	Ave	1.156	1.195	0.7000	1.03	1.00	3.4	20.0
Anthracene	Ave	1.173	1.245	0.7000	1.06	1.00	6.1	20.0
Carbazole	Ave	1.041	1.080	0.0100	1.04	1.00	3.7	20.0
Di-n-butyl phthalate	Ave	1.410	1.526	0.0100	1.08	1.00	8.2	20.0
Fluoranthene	Ave	1.123	1.232	0.6000	1.10	1.00	9.6	20.0
Benzidine	Lin1		0.6180		1.75	2.00	-12.3	20.0
Pyrene	Ave	1.215	1.333	0.6000	1.10	1.00	9.7	20.0
Butyl benzyl phthalate	Ave	0.6178	0.7025	0.0100	1.14	1.00	13.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9058	0.9796	0.0100	1.08	1.00	8.1	20.0
3,3'-Dichlorobenzidine	Ave	0.4518	0.4548	0.0100	2.01	2.00	0.7	20.0
Benzo[a]anthracene	Ave	1.172	1.225	0.8000	1.05	1.00	4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: STD6 240-328299/2 Calibration Date: 05/24/2018 06:52

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80524002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.167	1.184	0.7000	1.01	1.00	1.5	20.0
Di-n-octyl phthalate	Lin1		1.838	0.0100	1.08	1.00	7.9	20.0
Benzo[b]fluoranthene	Ave	1.165	1.263	0.7000	1.08	1.00	8.4	20.0
Benzo[k]fluoranthene	Ave	1.250	1.355	0.7000	1.08	1.00	8.4	20.0
Benzo[a]pyrene	Ave	1.112	1.231	0.7000	1.11	1.00	10.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.251	1.384	0.5000	1.11	1.00	10.7	20.0
Dibenz(a,h)anthracene	Ave	1.060	1.180	0.4000	1.11	1.00	11.3	20.0
Benzo[g,h,i]perylene	Ave	1.018	1.103	0.5000	1.08	1.00	8.3	20.0
2-Fluorophenol (Surr)	Ave	0.9099	0.8857		0.973	1.00	-2.7	20.0
Phenol-d5 (Surr)	Ave	1.619	1.498		0.926	1.00	-7.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3836	0.4192		1.09	1.00	9.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.413	1.430		1.01	1.00	1.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1325	0.1530		1.15	1.00	15.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8444	0.8758		1.04	1.00	3.7	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		157920	6.85	721640	7.92	355264	9.41
UPPER LIMIT		315840	7.35	1443280	8.42	710528	9.91
LOWER LIMIT		78960	6.35	360820	7.42	177632	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		164461	6.85	767073	7.92	379963	9.42
STD6 240-328299/2 CCVIS		164379	6.83	742367	7.91	363704	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		593380	10.70	584623	13.65	547873	16.03
UPPER LIMIT		1186760	11.20	1169246	14.15	1095746	16.53
LOWER LIMIT		296690	10.20	292312	13.15	273937	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		625512	10.70	619445	13.66	556290	16.04
STD6 240-328299/2 CCVIS		580765	10.69	546342	13.63	484683	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD6 240-328299/2 Date Analyzed: 05/24/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80524002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		164379	6.83	742367	7.91	363704	9.40
UPPER LIMIT		328758	7.33	1484734	8.41	727408	9.90
LOWER LIMIT		82190	6.33	371184	7.41	181852	8.90
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-328299/3 CCV		139815	6.83	757041	7.91	357491	9.40
STD6 240-328299/4 CCV		133959	6.83	675831	7.90	316186	9.40
MB 240-327918/12-A		126459	6.83	736846	7.90	356416	9.40
LCS 240-327918/13-A		140164	6.83	685611	7.90	345432	9.40
MB 240-327719/8-A		156678	6.83	778100	7.90	364494	9.40
LCS 240-327719/9-A		135055	6.83	627967	7.90	316001	9.40
240-95742-2	MSA-MW-25S-051518	126351	6.83	698656	7.90	327708	9.40
240-95742-3	MSA-MW-25I-051518	146340	6.83	695634	7.90	327682	9.40
240-95742-4	MSA-MW-4-051518	124885	6.83	694769	7.90	340441	9.40
240-95742-5	MSA-MW-20S-051618	147329	6.83	685702	7.90	351461	9.40
240-95742-6	MSA-MW-20I-051618	147365	6.83	695857	7.90	333478	9.40
240-95742-7	MSA-MW-20D-051618	126179	6.83	645228	7.90	329550	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD6 240-328299/2 Date Analyzed: 05/24/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80524002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		580765	10.69	546342	13.63	484683	16.00
UPPER LIMIT		1161530	11.19	1092684	14.13	969366	16.50
LOWER LIMIT		290383	10.19	273171	13.13	242342	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-328299/3 CCV		613689	10.69	504816	13.64	456559	16.01
STD6 240-328299/4 CCV		558300	10.68	435179	13.63	399694	16.00
MB 240-327918/12-A		688920	10.68	546037	13.63	486357	16.00
LCS 240-327918/13-A		564908	10.68	548708	13.63	468151	16.00
MB 240-327719/8-A		715086	10.68	581499	13.63	513556	16.00
LCS 240-327719/9-A		532873	10.68	510027	13.63	426657	16.00
240-95742-2	MSA-MW-25S-051518	643469	10.68	517159	13.63	467017	16.00
240-95742-3	MSA-MW-25I-051518	639603	10.68	510326	13.63	453611	16.00
240-95742-4	MSA-MW-4-051518	663665	10.68	550322	13.63	494746	16.00
240-95742-5	MSA-MW-20S-051618	670144	10.68	562129	13.63	502327	16.00
240-95742-6	MSA-MW-20I-051618	647440	10.68	559170	13.63	516844	16.00
240-95742-7	MSA-MW-20D-051618	643264	10.68	520707	13.63	478883	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A4AG2 Start Date: 05/22/2018 06:44

Analysis Batch Number: 327899 End Date: 05/22/2018 18:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-327899/1		05/22/2018 06:44	1	80522001.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/2 IC		05/22/2018 07:02	1	80522002.D	RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/3 IC		05/22/2018 07:26	1	80522003.D	RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/4 IC		05/22/2018 07:51	1	80522004.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/5 ICIS		05/22/2018 08:16	1	80522005.D	RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/6 IC		05/22/2018 08:41	1	80522006.D	RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/7 IC		05/22/2018 09:06	1	80522007.D	RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/8 IC		05/22/2018 09:31	1	80522008.D	RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/9 IC		05/22/2018 09:55	1	80522009.D	RXI-5SILMS/IIG 0.25(mm)
STD1 240-327899/10 IC		05/22/2018 10:20	1	80522010.D	RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/11		05/22/2018 10:45	1	80522011.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/12 IC		05/22/2018 11:10	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/13 IC		05/22/2018 11:35	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/14 IC		05/22/2018 12:00	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/15 IC		05/22/2018 12:24	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/16 IC		05/22/2018 12:49	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/17 IC		05/22/2018 13:14	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/18 IC		05/22/2018 13:39	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/19 IC		05/22/2018 14:04	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/20		05/22/2018 14:29	1		RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/21 IC		05/22/2018 14:54	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/22 IC		05/22/2018 15:19	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/23 IC		05/22/2018 15:44	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/24 IC		05/22/2018 16:08	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/25 IC		05/22/2018 16:33	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/26 IC		05/22/2018 16:58	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/27 IC		05/22/2018 17:23	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/28 IC		05/22/2018 17:48	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/29		05/22/2018 18:12	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/22/2018 18:37	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A4AG2 Start Date: 05/24/2018 06:35

Analysis Batch Number: 328299 End Date: 05/24/2018 18:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-328299/1		05/24/2018 06:35	1	80524001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-328299/2 CCVIS		05/24/2018 06:52	1	80524002.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-328299/3 CCV		05/24/2018 07:24	1	80524003.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-328299/4 CCV		05/24/2018 07:48	1	80524004.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-327918/12-A		05/24/2018 08:13	1	80524005.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-327918/13-A		05/24/2018 08:37	1	80524006.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-327719/8-A		05/24/2018 09:02	1	80524007.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-327719/9-A		05/24/2018 09:26	1	80524008.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-2		05/24/2018 09:51	1	80524009.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-3		05/24/2018 10:15	1	80524010.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-4		05/24/2018 10:40	1	80524011.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-5		05/24/2018 11:04	1	80524012.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-6		05/24/2018 11:29	1	80524013.D	RXI-5SILMS/IIG 0.25(mm)
240-95742-7		05/24/2018 11:53	1	80524014.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/24/2018 17:13	20		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/24/2018 17:38	100		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/24/2018 18:02	100		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/24/2018 18:27	100		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 327719 Batch Start Date: 05/21/18 08:02 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-95742-G-2	MSA-MW-25S-051518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-95742-D-3	MSA-MW-25I-051518	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-95742-I-4	MSA-MW-4-051518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
MB 240-327719/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-327719/9		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00058					
240-95742-G-2	MSA-MW-25S-051518	3510C, 8270D	T	0.4 mL					
240-95742-D-3	MSA-MW-25I-051518	3510C, 8270D	T	0.4 mL					
240-95742-I-4	MSA-MW-4-051518	3510C, 8270D	T	0.4 mL					
MB 240-327719/8		3510C, 8270D		0.4 mL					
LCS 240-327719/9		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3594582
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 327918 Batch Start Date: 05/22/18 07:53 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-95742-I-5	MSA-MW-20S-051618	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-95742-E-6	MSA-MW-20I-051618	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-95742-D-7	MSA-MW-20D-051618	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
MB 240-327918/12		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-327918/13		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00058					
240-95742-I-5	MSA-MW-20S-051618	3510C, 8270D	T	0.4 mL					
240-95742-E-6	MSA-MW-20I-051618	3510C, 8270D	T	0.4 mL					
240-95742-D-7	MSA-MW-20D-051618	3510C, 8270D	T	0.4 mL					
MB 240-327918/12		3510C, 8270D		0.4 mL					
LCS 240-327918/13		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3594582
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW-25S-051518	240-95742-2	79
MSA-MW-4-051518	240-95742-4	81
MSA-MW-20S-051618	240-95742-5	77
	MB 240-328284/29	70
	LCS 240-328284/30	83

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0052430.D

Lab ID: LCS 240-328284/30 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	782	98	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: MB 240-328284/29

Matrix: Water Date Extracted: 05/24/2018 22:21

Lab File ID:(1) A0052429.D Lab File ID:(2)

Date Analyzed:(1) 05/24/2018 22:21 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-328284/30	05/24/2018 22:57	
MSA-MW-25S-051518	240-95742-2	05/24/2018 23:34	
MSA-MW-4-051518	240-95742-4	05/25/2018 00:10	
MSA-MW-20S-051618	240-95742-5	05/25/2018 00:47	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-328284/29

Matrix: Water Lab File ID: A0052429.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2018 22:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 328284 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	70		56-120

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: CCVRT 240-328284/4 Date Analyzed: 05/24/2018 06:56

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0052404.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				10.38		
UPPER LIMIT				10.48		
LOWER LIMIT				10.28		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-328284/4		05/24/2018 06:56	A0052404.D	10.38		
CCV 240-328284/28		05/24/2018 21:44	A0052428.D	10.38		
MB 240-328284/29		05/24/2018 22:21	A0052429.D	10.38		
LCS 240-328284/30		05/24/2018 22:57	A0052430.D	10.38		
240-95742-2	MSA-MW-25S-051518	05/24/2018 23:34	A0052431.D	10.38		
240-95742-4	MSA-MW-4-051518	05/25/2018 00:10	A0052432.D	10.38		
240-95742-5	MSA-MW-20S-051618	05/25/2018 00:47	A0052433.D	10.38		
CCV 240-328284/37		05/25/2018 03:13	A0052437.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVRT 240-328284/4 Calibration Date: 05/24/2018 06:56

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052404.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		209728		852	800	6.5	20.0
C6-C12	Lin1		236674		837	800	4.6	20.0
Trifluorotoluene (Surr)	Lin1		265876		45.5	40.0	13.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCVRT 240-328284/4 Calibration Date: 05/24/2018 06:56

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052404.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.94	17.03
C6-C12	13.23	6.94	19.53
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328284/28 Calibration Date: 05/24/2018 21:44

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052428.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		201509		818	800	2.2	20.0
C6-C12	Lin1		230574		813	800	1.6	20.0
Trifluorotoluene (Surr)	Lin1		194139		32.8	40.0	-18.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328284/28 Calibration Date: 05/24/2018 21:44

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052428.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.94	17.03
C6-C12	13.23	6.94	19.53
Trifluorotoluene (Surr)	10.38	10.33	10.43

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328284/37 Calibration Date: 05/25/2018 03:13

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052437.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		185849		751	800	-6.1	20.0
C6-C12	Lin1		208662		727	800	-9.1	20.0
Trifluorotoluene (Surr)	Lin1		200000		33.8	40.0	-15.4	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328284/37 Calibration Date: 05/25/2018 03:13

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0052437.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.98	6.94	17.03
C6-C12	13.23	6.94	19.53
Trifluorotoluene (Surr)	10.39	10.33	10.43

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: AFID Start Date: 04/18/2018 08:10

Analysis Batch Number: 322909 End Date: 04/18/2018 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-322909/4 IC		04/18/2018 08:10	1	A0041804.D	RTX-VRX 0.45(mm)
STD2 240-322909/5 IC		04/18/2018 08:47	1	A0041805.D	RTX-VRX 0.45(mm)
STD3 240-322909/6 IC		04/18/2018 09:24	1	A0041806.D	RTX-VRX 0.45(mm)
STD4 240-322909/7 ICRT		04/18/2018 10:02	1	A0041807.D	RTX-VRX 0.45(mm)
STD5 240-322909/8 IC		04/18/2018 10:39	1	A0041808.D	RTX-VRX 0.45(mm)
STD6 240-322909/9 IC		04/18/2018 11:17	1	A0041809.D	RTX-VRX 0.45(mm)
STD7 240-322909/10 IC		04/18/2018 11:54	1	A0041810.D	RTX-VRX 0.45(mm)
STD8 240-322909/11 IC		04/18/2018 12:32	1	A0041811.D	RTX-VRX 0.45(mm)
ICV 240-322909/12		04/18/2018 13:09	1	A0041812.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: AFID Start Date: 05/24/2018 06:56

Analysis Batch Number: 328284 End Date: 05/25/2018 07:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-328284/4		05/24/2018 06:56	1	A0052404.D	RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 07:32	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 08:09	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 08:45	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 09:22	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 09:59	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 10:35	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 11:13	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 11:50	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 12:28	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 13:05	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 13:42	1		RTX-VRX 0.45(mm)
CCV 240-328284/16		05/24/2018 14:19	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 14:56	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 15:34	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 16:11	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 16:48	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 17:25	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 18:02	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 18:40	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 19:17	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 19:54	1		RTX-VRX 0.45(mm)
ZZZZZ		05/24/2018 20:31	1		RTX-VRX 0.45(mm)
CCV 240-328284/28		05/24/2018 21:44	1	A0052428.D	RTX-VRX 0.45(mm)
MB 240-328284/29		05/24/2018 22:21	1	A0052429.D	RTX-VRX 0.45(mm)
LCS 240-328284/30		05/24/2018 22:57	1	A0052430.D	RTX-VRX 0.45(mm)
240-95742-2		05/24/2018 23:34	1	A0052431.D	RTX-VRX 0.45(mm)
240-95742-4		05/25/2018 00:10	1	A0052432.D	RTX-VRX 0.45(mm)
240-95742-5		05/25/2018 00:47	1	A0052433.D	RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 01:23	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 01:59	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 02:36	1		RTX-VRX 0.45(mm)
CCV 240-328284/37		05/25/2018 03:13	1	A0052437.D	RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 03:49	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 04:25	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 05:02	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 05:39	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 06:16	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 06:52	1		RTX-VRX 0.45(mm)
CCV 240-328284/44		05/25/2018 07:29	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 322909 Batch Start Date: 04/18/18 08:10 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	
STD1 240-322909/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-322909/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-322909/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-322909/7 ICRT		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-322909/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-322909/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-322909/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		
STD8 240-322909/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		
ICV 240-322909/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 328284 Batch Start Date: 05/24/18 06:56 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-328284/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-328284/28		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-328284/29		8015C		5 mL	5 mL				1 uL
LCS 240-328284/30		8015C		5 mL	5 mL			40 uL	1 uL
240-95742-A-2	MSA-MW-25S-051518	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95742-A-4	MSA-MW-4-051518	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-95742-A-5	MSA-MW-20S-051618	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-328284/37		8015C		5 mL	5 mL	<2 SU	40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-MW-25S-051518	240-95742-2	72
MSA-MW-4-051518	240-95742-4	68
MSA-MW-20S-051618	240-95742-5	74
	MB 240-327915/4-A	73
	LCS 240-327915/5-A	73

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R052309.D

Lab ID: LCS 240-327915/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1380	69	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: MB 240-327915/4-A

Matrix: Water Date Extracted: 05/22/2018 07:46

Lab File ID:(1) R052308.D Lab File ID:(2)

Date Analyzed:(1) 05/23/2018 20:18 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-327915/5-A	05/23/2018 20:45	
MSA-MW-25S-051518	240-95742-2	05/23/2018 21:13	
MSA-MW-4-051518	240-95742-4	05/23/2018 21:40	
MSA-MW-20S-051618	240-95742-5	05/23/2018 22:07	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-327915/4-A

Matrix: Water | Lab File ID: R052308.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/22/2018 07:46

Sample wt/vol: 250(mL) | Date Analyzed: 05/23/2018 20:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328244 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		37-130

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-95742-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328244/7 Calibration Date: 05/23/2018 19:51

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052307.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	892164		105000	100000	4.9	20.0
o-Terphenyl (Surr)	Ave	998632	1015651		8140	8000	1.7	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328244/7 Calibration Date: 05/23/2018 19:51

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052307.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328244/13 Calibration Date: 05/23/2018 22:34

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052313.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	894942		105000	100000	5.2	20.0
o-Terphenyl (Surr)	Ave	998632	1017334		8150	8000	1.9	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: CCV 240-328244/13 Calibration Date: 05/23/2018 22:34

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052313.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: RTC 240-328244/6 Date Analyzed: 05/23/2018 19:24

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R052306.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: A2HP14R Start Date: 05/23/2018 19:24

Analysis Batch Number: 328244 End Date: 05/23/2018 22:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-328244/6		05/23/2018 19:24	1	R052306.D	Rxi-5HT 0.53(mm)
CCV 240-328244/7		05/23/2018 19:51	1	R052307.D	Rxi-5HT 0.53(mm)
MB 240-327915/4-A		05/23/2018 20:18	1	R052308.D	Rxi-5HT 0.53(mm)
LCS 240-327915/5-A		05/23/2018 20:45	1	R052309.D	Rxi-5HT 0.53(mm)
240-95742-2		05/23/2018 21:13	1	R052310.D	Rxi-5HT 0.53(mm)
240-95742-4		05/23/2018 21:40	1	R052311.D	Rxi-5HT 0.53(mm)
240-95742-5		05/23/2018 22:07	1	R052312.D	Rxi-5HT 0.53(mm)
CCV 240-328244/13		05/23/2018 22:34	1	R052313.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Batch Number: 327915 Batch Start Date: 05/22/18 08:50 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/23/18 02:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-95742-F-2	MSA-MW-25S-051518	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95742-F-4	MSA-MW-4-051518	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-95742-F-5	MSA-MW-20S-051618	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-327915/4		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-327915/5		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328800/7 05/25/2018 11:12				CCV 240-328800/125 05/25/2018 19:59				CCV 240-328800/137 05/25/2018 20:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.8		40.0	102	49.4		50.0	99	49.3		50.0	99
Arsenic	41.4		40.0	104	50.5		50.0	101	51.9		50.0	104
Barium	39.6		40.0	99	48.7		50.0	97	48.0		50.0	96
Beryllium	38.6		40.0	96	54.1		50.0	108	57.4		50.0	115
Cadmium	40.5		40.0	101	48.0		50.0	96	48.3		50.0	97
Chromium	40.7		40.0	102	49.9		50.0	100	50.6		50.0	101
Cobalt	41.2		40.0	103	50.8		50.0	102	51.9		50.0	104
Copper	42.5		40.0	106	51.4		50.0	103	52.4		50.0	105
Dissolved Iron	10100		10000	101	12500		12500	100	12900		12500	104
Dissolved Lead	41.3		40.0	103	49.8		50.0	100	50.6		50.0	101
Dissolved Manganese	207		200	104	256		250	102	261		250	104
Dissolved Molybdenum	40.8		40.0	102	50.2		50.0	100	49.8		50.0	100
Dissolved Nickel	41.2		40.0	103	50.7		50.0	101	52.0		50.0	104
Dissolved Selenium	39.9		40.0	100	46.6		50.0	93	45.4		50.0	91
Dissolved Silver	40.7		40.0	102	49.2		50.0	98	48.8		50.0	98
Dissolved Thallium	40.1		40.0	100	49.7		50.0	99	50.5		50.0	101
Dissolved Vanadium	40.2		40.0	100	49.5		50.0	99	50.6		50.0	101
Zinc	41.3		40.0	103	50.7		50.0	101	51.7		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328800/7 05/25/2018 11:12				CCV 240-328800/113 05/25/2018 19:06							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.8		40.0	102	49.7		50.0	99				
Arsenic	41.4		40.0	104	51.4		50.0	103				
Barium	39.6		40.0	99	48.8		50.0	98				
Beryllium	38.6		40.0	96	52.8		50.0	106				
Cadmium	40.5		40.0	101	48.3		50.0	97				
Chromium	40.7		40.0	102	50.2		50.0	100				
Cobalt	41.2		40.0	103	51.0		50.0	102				
Copper	42.5		40.0	106	51.3		50.0	103				
Dissolved Iron	10100		10000	101	12700		12500	101				
Dissolved Lead	41.3		40.0	103	49.9		50.0	100				
Dissolved Manganese	207		200	104	256		250	102				
Dissolved Molybdenum	40.8		40.0	102	50.2		50.0	100				
Dissolved Nickel	41.2		40.0	103	50.7		50.0	101				
Dissolved Selenium	39.9		40.0	100	46.1		50.0	92				
Dissolved Silver	40.7		40.0	102	49.4		50.0	99				
Dissolved Thallium	40.1		40.0	100	50.3		50.0	101				
Dissolved Vanadium	40.2		40.0	100	49.6		50.0	99				
Zinc	41.3		40.0	103	51.0		50.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-328800/9 05/25/2018 11:21				CCVL 240-328800/181 05/26/2018 00:09							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.86	J	2.00	93	1.86	J	2.00	93				
Arsenic	4.85	J	5.00	97	5.41		5.00	108				
Barium	4.75	J	5.00	95	4.69	J	5.00	94				
Beryllium	0.873	J	1.00	87	0.985	J	1.00	99				
Cadmium	0.964	J	1.00	96	0.939	J	1.00	94				
Chromium	1.96	J	2.00	98	1.88	J	2.00	94				
Cobalt	1.03		1.00	103	1.06		1.00	106				
Copper	2.13		2.00	106	2.11		2.00	105				
Dissolved Iron	110		100	110	108		100	108				
Dissolved Lead	0.925	J	1.00	93	0.907	J	1.00	91				
Dissolved Manganese	4.92	J	5.00	98	5.09		5.00	102				
Dissolved Molybdenum	5.02		5.00	100	4.86	J	5.00	97				
Dissolved Nickel	2.07		2.00	103	2.05		2.00	103				
Dissolved Selenium	4.19	J	5.00	84	5.02		5.00	100				
Dissolved Silver	0.959	J	1.00	96	0.947	J	1.00	95				
Dissolved Thallium	1.02		1.00	102	0.986	J	1.00	99				
Dissolved Vanadium	4.91	J	5.00	98	4.64	J	5.00	93				
Zinc	20.4		20.0	102	20.8		20.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328903/7 05/27/2018 16:39				CCV 240-328903/24 05/27/2018 18:00							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.4		40.0	99	47.9		50.0	96				
Antimony	40.4		40.0	101	50.4		50.0	101				
Arsenic	40.3		40.0	101	49.6		50.0	99				
Barium	39.7		40.0	99	49.2		50.0	98				
Cadmium	40.7		40.0	102	49.8		50.0	100				
Chromium	39.4		40.0	99	49.1		50.0	98				
Cobalt	40.2		40.0	101	49.4		50.0	99				
Copper	41.3		40.0	103	49.8		50.0	100				
Iron	9880		10000	99	12200		12500	97				
Lead	41.9		40.0	105	49.4		50.0	99				
Manganese	195		200	97	243		250	97				
Molybdenum	40.9		40.0	102	50.9		50.0	102				
Nickel	40.8		40.0	102	49.2		50.0	98				
Selenium	39.3		40.0	98	49.4		50.0	99				
Silver	40.9		40.0	102	49.3		50.0	99				
Thallium	41.6		40.0	104	49.9		50.0	100				
Vanadium	38.9		40.0	97	49.2		50.0	98				
Zinc	40.0		40.0	100	48.0		50.0	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328903/7 05/27/2018 16:39				CCV 240-328903/12 05/27/2018 17:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.4		40.0	99	48.0		50.0	96				
Antimony	40.4		40.0	101	49.7		50.0	99				
Arsenic	40.3		40.0	101	49.3		50.0	99				
Barium	39.7		40.0	99	48.3		50.0	97				
Cadmium	40.7		40.0	102	49.5		50.0	99				
Chromium	39.4		40.0	99	48.9		50.0	98				
Cobalt	40.2		40.0	101	49.4		50.0	99				
Copper	41.3		40.0	103	49.9		50.0	100				
Iron	9880		10000	99	12400		12500	99				
Lead	41.9		40.0	105	49.5		50.0	99				
Manganese	195		200	97	248		250	99				
Molybdenum	40.9		40.0	102	54.9		50.0	110				
Nickel	40.8		40.0	102	48.6		50.0	97				
Selenium	39.3		40.0	98	50.3		50.0	101				
Silver	40.9		40.0	102	49.6		50.0	99				
Thallium	41.6		40.0	104	49.8		50.0	100				
Vanadium	38.9		40.0	97	48.4		50.0	97				
Zinc	40.0		40.0	100	48.6		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-328903/9 05/27/2018 16:48				CCVL 240-328903/40 05/27/2018 19:11							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.847	J	1.00	85	0.909	J	1.00	91				
Antimony	2.01		2.00	101	2.00		2.00	100				
Arsenic	5.04		5.00	101	4.95	J	5.00	99				
Barium	4.84	J	5.00	97	4.80	J	5.00	96				
Cadmium	1.03		1.00	103	0.998	J	1.00	100				
Chromium	1.86	J	2.00	93	1.79	J	2.00	90				
Cobalt	1.03		1.00	103	1.00		1.00	100				
Copper	2.00		2.00	100	2.00		2.00	100				
Iron	110		100	110	107		100	107				
Lead	0.973	J	1.00	97	0.902	J	1.00	90				
Manganese	4.81	J	5.00	96	4.63	J	5.00	93				
Molybdenum	5.02		5.00	100	5.05		5.00	101				
Nickel	1.86	J	2.00	93	1.93	J	2.00	96				
Selenium	4.67	J	5.00	93	5.10		5.00	102				
Silver	0.966	J	1.00	97	0.980	J	1.00	98				
Thallium	1.02		1.00	102	1.01		1.00	101				
Vanadium	4.82	J	5.00	96	4.83	J	5.00	97				
Zinc	19.4	J	20.0	97	18.3	J	20.0	92				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTHgICV_00001_00342 Concentration Units: ug/L

CCV Source: MTHGCALW_01830

Analyte	ICV 240-327850/7-A 05/21/2018 14:07				CCV 240-327850/10-A 05/21/2018 17:02				CCV 240-327850/10-A 05/21/2018 17:30			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.80		5.00	96	4.79		5.00	96	4.86		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICV Source: MTHgICV_00001_00342 Concentration Units: ug/L

CCV Source: MTHGCALW_01830

Analyte	CCV 240-327850/10-A 05/21/2018 17:36				CCV 240-327850/10-A 05/21/2018 18:00							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.88		5.00	98	4.81		5.00	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-327850/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01830

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.216		108	50-150
Mercury	0.200	0.216		108	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328800/8 05/25/2018 11:17		CCB 240-328800/114 05/25/2018 19:10		CCB 240-328800/126 05/25/2018 20:04		CCB 240-328800/138 05/25/2018 20:57	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328903/8 05/27/2018 16:44		CCB 240-328903/13 05/27/2018 17:06		CCB 240-328903/25 05/27/2018 18:04			
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-327850/8-A 05/21/2018 14:09		CCB 240-327850/11-A 05/21/2018 17:03		CCB 240-327850/11-A 05/21/2018 17:32		CCB 240-327850/11-A 05/21/2018 17:38	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-327850/11-A 05/21/2018 18:02							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-327506/1-A

Instrument Code: I10 Batch No.: 328800

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-327507/1-A

Instrument Code: H3 Batch No.: 327943

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICSA 240-328800/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0470**	
Arsenic		**-0.180**	
Barium		**0.0010**	
Beryllium		**-0.0040**	
Cadmium		**0.316**	
Chromium		**0.0770**	
Cobalt		**0.0070**	
Copper		**0.438**	
Dissolved Iron	**50000**	**48472**	**97**
Dissolved Lead		**0.381**	
Dissolved Manganese		**0.0830**	
Dissolved Molybdenum	**1000**	**1016**	**102**
Dissolved Nickel		**0.131**	
Dissolved Selenium		**-0.339**	
Dissolved Silver		**0.0130**	
Dissolved Thallium		**0.0010**	
Dissolved Vanadium		**-0.112**	
Zinc		**0.211**	
Aluminum	*50000*	*48113*	*96*
Boron		*3.78*	
Calcium	*50000*	*48582*	*97*
Lithium		*-0.468*	
Magnesium	*50000*	*48930*	*98*
Potassium	*50000*	*47710*	*95*
Sodium	*50000*	*48143*	*96*
Strontium		*0.441*	
Tin		*-0.236*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.210*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICSAB 240-328800/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.9**	**99**
Arsenic	**100**	**99.8**	**100**
Barium	**100**	**96.4**	**96**
Beryllium	**100**	**100.0**	**100**
Cadmium	**100**	**97.0**	**97**
Chromium	**100**	**96.1**	**96**
Cobalt	**100**	**97.9**	**98**
Copper	**100**	**99.5**	**99**
Dissolved Iron	**50000**	**48311**	**97**
Dissolved Lead	**100**	**101**	**101**
Dissolved Manganese	**100**	**96.3**	**96**
Dissolved Molybdenum	**1100**	**1119**	**102**
Dissolved Nickel	**100**	**98.8**	**99**
Dissolved Selenium	**100**	**99.4**	**99**
Dissolved Silver	**100**	**98.8**	**99**
Dissolved Thallium	**100**	**98.1**	**98**
Dissolved Vanadium	**100**	**97.8**	**98**
Zinc	**100**	**98.6**	**99**
Aluminum	*50000*	*48276*	*97*
Boron	*100*	*107*	*107*
Calcium	*50000*	*48636*	*97*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*49350*	*99*
Potassium	*50000*	*48542*	*97*
Sodium	*50000*	*48565*	*97*
Strontium	*100*	*99.8*	*100*
Tin	*100*	*99.3*	*99*
Titanium	*1100*	*1118*	*102*
Tungsten	*100*	*99.7*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICSA 240-328903/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0290**	
Aluminum	*50000*	*48951*	*98*
Antimony		*0.0160*	
Arsenic		*-0.0890*	
Barium		*0.0180*	
Boron		*-2.98*	
Cadmium		*0.272*	
Calcium	*50000*	*49249*	*98*
Chromium		*-0.0210*	
Cobalt		*0.0120*	
Copper		*0.338*	
Iron	*50000*	*48749*	*97*
Lead		*0.423*	
Lithium		*-3.54*	
Magnesium	*50000*	*49139*	*98*
Manganese		*-0.133*	
Molybdenum	*1000*	*1024*	*102*
Nickel		*0.0510*	
Potassium	*50000*	*48965*	*98*
Selenium		*0.106*	
Silver		*0.0110*	
Sodium	*50000*	*48723*	*97*
Strontium		*0.432*	
Thallium		*-0.0190*	
Tin		*-2.06*	
Titanium	*1000*	*997*	*100*
Tungsten		*0.156*	
Vanadium		*-0.0200*	
Zinc		*-1.63*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Lab Sample ID: ICSAB 240-328903/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**101**	**101**
Aluminum	*50000*	*48511*	*97*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*101*	*101*
Barium	*100*	*99.4*	*99*
Boron	*100*	*103*	*103*
Cadmium	*100*	*98.9*	*99*
Calcium	*50000*	*48791*	*98*
Chromium	*100*	*96.8*	*97*
Cobalt	*100*	*97.9*	*98*
Copper	*100*	*98.4*	*98*
Iron	*50000*	*48726*	*97*
Lead	*100*	*99.4*	*99*
Lithium	*100*	*101*	*101*
Magnesium	*50000*	*48294*	*97*
Manganese	*100*	*96.8*	*97*
Molybdenum	*1100*	*1133*	*103*
Nickel	*100*	*97.9*	*98*
Potassium	*50000*	*48876*	*98*
Selenium	*100*	*98.3*	*98*
Silver	*100*	*99.8*	*100*
Sodium	*50000*	*48285*	*97*
Strontium	*100*	*99.9*	*100*
Thallium	*100*	*98.0*	*98*
Tin	*100*	*103*	*103*
Titanium	*1100*	*1082*	*98*
Tungsten	*100*	*98.4*	*98*
Vanadium	*100*	*97.3*	*97*
Zinc	*100*	*99.7*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-25S-051518 MS
Lab ID: 240-95742-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-95742-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.08		0.13	U	1.00	108	80-120		7470A
Mercury, Dissolved	1.08		0.13	U	1.00	108	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-25S-051518 MSD Lab ID: 240-95742-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.953		1.00	95	80-120	12	20		7470A
Mercury, Dissolved	0.953		1.00	95	80-120	12	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-327506/2-A

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

Sample Matrix: Water | LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.9		94	80	120		6020A
Dissolved Antimony	100	93.9		94	80	120		6020A
Arsenic	1000	982		98	80	120		6020A
Dissolved Arsenic	1000	982		98	80	120		6020A
Barium	1000	937		94	80	120		6020A
Dissolved Barium	1000	937		94	80	120		6020A
Beryllium	1000	1030		103	80	120		6020A
Dissolved Beryllium	1000	1030		103	80	120		6020A
Cadmium	1000	953		95	80	120		6020A
Dissolved Cadmium	1000	953		95	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Chromium	1000	1000		100	80	120		6020A
Dissolved Chromium	1000	1000		100	80	120		6020A
Copper	1000	1070		107	80	120		6020A
Dissolved Copper	1000	1070		107	80	120		6020A
Dissolved Iron	10000	9750		98	80	120		6020A
Iron	10000	9750		98	80	120		6020A
Dissolved Manganese	1000	981		98	80	120		6020A
Manganese	1000	981		98	80	120		6020A
Dissolved Molybdenum	100	95.0		95	80	120		6020A
Molybdenum	100	95.0		95	80	120		6020A
Dissolved Nickel	1000	1050		105	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Dissolved Lead	1000	1040		104	80	120		6020A
Lead	1000	1040		104	80	120		6020A
Dissolved Selenium	1000	909		91	80	120		6020A
Selenium	1000	909		91	80	120		6020A
Dissolved Thallium	250	252		101	80	120		6020A
Thallium	250	252		101	80	120		6020A
Dissolved Vanadium	1000	978		98	80	120		6020A
Dissolved Zinc	1000	1010		101	80	120		6020A
Vanadium	1000	978		98	80	120		6020A
Zinc	1000	1010		101	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-327506/2-A

Lab Name: TestAmerica Canton Job No.: 240-95742-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	96.2		96	80	120		6020A
Silver	100	96.2		96	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-327507/2-A

Lab Name: TestAmerica Canton | Job No.: 240-95742-1

Sample Matrix: Water | LCS Source: MTHGCALW_01829

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.01		100	80	120		7470A
Mercury, Dissolved	5.00	5.01		100	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-95742-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-95742-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-327506/1-A	05/18/2018 14:00	327506		50	50
LCS 240-327506/2-A	05/18/2018 14:00	327506		50	50
240-95742-2	05/18/2018 14:00	327506		50	50
240-95742-2	05/18/2018 14:00	327506		50	50
240-95742-3	05/18/2018 14:00	327506		50	50
240-95742-3	05/18/2018 14:00	327506		50	50
240-95742-4	05/18/2018 14:00	327506		50	50
240-95742-4	05/18/2018 14:00	327506		50	50
240-95742-5	05/18/2018 14:00	327506		50	50
240-95742-5	05/18/2018 14:00	327506		50	50
240-95742-6	05/18/2018 14:00	327506		50	50
240-95742-6	05/18/2018 14:00	327506		50	50
240-95742-7	05/18/2018 14:00	327506		50	50
240-95742-7	05/18/2018 14:00	327506		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-327507/1-A	05/18/2018 14:00	327507		50	50
LCS 240-327507/2-A	05/18/2018 14:00	327507		50	50
240-95742-2	05/18/2018 14:00	327507		50	50
240-95742-2 MS	05/18/2018 14:00	327507		50	50
240-95742-2 MSD	05/18/2018 14:00	327507		50	50
240-95742-2	05/18/2018 14:00	327507		50	50
240-95742-3	05/18/2018 14:00	327507		50	50
240-95742-3	05/18/2018 14:00	327507		50	50
240-95742-4	05/18/2018 14:00	327507		50	50
240-95742-4	05/18/2018 14:00	327507		50	50
240-95742-5	05/18/2018 14:00	327507		50	50
240-95742-5	05/18/2018 14:00	327507		50	50
240-95742-6	05/18/2018 14:00	327507		50	50
240-95742-6	05/18/2018 14:00	327507		50	50
240-95742-7	05/18/2018 14:00	327507		50	50
240-95742-7	05/18/2018 14:00	327507		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:46																									
ICIS 240-328800/2			10:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-328800/3 IC	1		10:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-328800/4 IC	1		10:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-328800/5 IC	1		11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-328800/6 IC	1		11:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-328800/7	1		11:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-328800/8	1		11:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-328800/9	1		11:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-328800/10	1		11:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-328800/11	1		11:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-328800/12			11:35																									
CCB 240-328800/13			11:39																									
ZZZZZZ			11:44																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:58																									
ZZZZZZ			12:02																									
ZZZZZZ			12:07																									
ZZZZZZ			12:11																									
ZZZZZZ			12:16																									
ZZZZZZ			12:20																									
ZZZZZZ			12:25																									
CCV 240-328800/24			12:29																									
CCB 240-328800/25			12:33																									
ZZZZZZ			12:38																									
ZZZZZZ			12:42																									
ZZZZZZ			12:47																									
ZZZZZZ			12:51																									
ZZZZZZ			12:56																									
ZZZZZZ			13:00																									
ZZZZZZ			13:05																									
ZZZZZZ			13:09																									
ZZZZZZ			13:14																									
ZZZZZZ			13:18																									
CCV 240-328800/36			13:23																									
CCB 240-328800/37			13:27																									
ZZZZZZ			13:32																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:45																									
ZZZZZZ			13:49																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:54																										
ZZZZZZ			13:58																										
ZZZZZZ			14:03																										
ZZZZZZ			14:07																										
ZZZZZZ			14:12																										
CCV 240-328800/48			14:16																										
CCB 240-328800/49			14:20																										
CCV 240-328800/50			14:25																										
CCB 240-328800/51			14:29																										
CCVL 240-328800/52			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:52																										
ZZZZZZ			14:56																										
CCV 240-328800/58			15:01																										
CCB 240-328800/59			15:05																										
ZZZZZZ			15:10																										
ZZZZZZ			15:14																										
ZZZZZZ			15:19																										
ZZZZZZ			15:23																										
ZZZZZZ			15:27																										
ZZZZZZ			15:32																										
ZZZZZZ			15:36																										
ZZZZZZ			15:41																										
ZZZZZZ			15:45																										
ZZZZZZ			15:50																										
CCV 240-328800/70			15:54																										
CCB 240-328800/71			15:59																										
ZZZZZZ			16:03																										
ZZZZZZ			16:07																										
ZZZZZZ			16:12																										
ZZZZZZ			16:16																										
ZZZZZZ			16:21																										
ZZZZZZ			16:25																										
ZZZZZZ			16:30																										
CCV 240-328800/79			16:34																										
CCB 240-328800/80			16:39																										
ZZZZZZ			16:43																										
ZZZZZZ			16:48																										
ZZZZZZ			16:52																										
ZZZZZZ			16:56																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:01																									
ZZZZZZ			17:05																									
ZZZZZZ			17:10																									
ZZZZZZ			17:14																									
ZZZZZZ			17:19																									
ZZZZZZ			17:23																									
CCV 240-328800/91			17:28																									
CCB 240-328800/92			17:32																									
ZZZZZZ			17:36																									
ZZZZZZ			17:41																									
ZZZZZZ			17:45																									
ZZZZZZ			17:50																									
ZZZZZZ			17:54																									
CCV 240-328800/98			17:59																									
CCB 240-328800/99			18:03																									
CCVL 240-328800/100			18:08																									
ZZZZZZ			18:12																									
ZZZZZZ			18:17																									
ZZZZZZ			18:21																									
ZZZZZZ			18:26																									
ZZZZZZ			18:30																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:43																									
ZZZZZZ			18:48																									
CCV 240-328800/110			18:52																									
CCB 240-328800/111			18:57																									
ZZZZZZ			19:01																									
CCV 240-328800/113	1		19:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-328800/114	1		19:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-327506/1-A	1	R	19:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-327506/2-A	1	R	19:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			19:23																									
ZZZZZZ			19:28																									
ZZZZZZ			19:32																									
ZZZZZZ			19:37																									
ZZZZZZ			19:41																									
240-95742-2	1	R	19:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95742-2	1	D	19:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-95742-3	1	R	19:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-328800/125	1		19:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-328800/126	1		20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
240-95742-3	1	D	20:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-4	1	R	20:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-4	1	D	20:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-5	1	R	20:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-5	1	D	20:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-6	1	R	20:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-6	1	D	20:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-7	1	R	20:39	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X									
240-95742-7	1	D	20:44	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			20:48																									
CCV 240-328800/137	1		20:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-328800/138	1		20:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:10																									
ZZZZZZ			21:15																									
ZZZZZZ			21:19																									
CCV 240-328800/144			21:24																									
CCB 240-328800/145			21:28																									
CCVL 240-328800/146			21:33																									
ZZZZZZ			21:37																									
ZZZZZZ			21:42																									
ZZZZZZ			21:46																									
ZZZZZZ			21:50																									
ICSA 240-328800/151			21:55																									
ICSAB 240-328800/152			21:59																									
ZZZZZZ			22:04																									
ZZZZZZ			22:08																									
ZZZZZZ			22:13																									
ZZZZZZ			22:17																									
ZZZZZZ			22:22																									
CCV 240-328800/158			22:26																									
CCB 240-328800/159			22:31																									
ZZZZZZ			22:35																									
ZZZZZZ			22:39																									
ZZZZZZ			22:44																									
ZZZZZZ			22:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:57																									
ZZZZZZ			23:02																									
ZZZZZZ			23:06																									
ZZZZZZ			23:11																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			23:15																									
CCV 240-328800/170			23:20																									
CCB 240-328800/171			23:24																									
ZZZZZZ			23:29																									
ZZZZZZ			23:33																									
ZZZZZZ			23:37																									
ZZZZZZ			23:42																									
ZZZZZZ			23:46																									
ZZZZZZ			23:51																									
ZZZZZZ			23:55																									
CCV 240-328800/179			00:00																									
CCB 240-328800/180			00:04																									
CCVL 240-328800/181	1		00:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			00:13																									
ZZZZZZ			00:18																									
ZZZZZZ			00:22																									
ZZZZZZ			00:27																									
ZZZZZZ			00:31																									
ZZZZZZ			00:35																									
ZZZZZZ			00:40																									
ZZZZZZ			00:44																									
ZZZZZZ			00:49																									
CCV 240-328800/191			00:53																									
CCB 240-328800/192			00:58																									
ZZZZZZ			01:02																									
ZZZZZZ			01:07																									
ZZZZZZ			01:11																									
ZZZZZZ			01:16																									
ZZZZZZ			01:20																									
CCV 240-328800/198			01:25																									
CCB 240-328800/199			01:29																									
CCVL 240-328800/200			01:34																									
ZZZZZZ			01:38																									
ZZZZZZ			01:42																									
ZZZZZZ			01:47																									
ZZZZZZ			01:51																									
ZZZZZZ			01:56																									
ZZZZZZ			02:00																									
ZZZZZZ			02:05																									
ZZZZZZ			02:09																									
ZZZZZZ			02:14																									
CCV 240-328800/210			02:18																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCB 240-328800/211			02:23																											
ZZZZZZ			02:27																											
ZZZZZZ			02:32																											
ZZZZZZ			02:36																											
ZZZZZZ			02:41																											
ZZZZZZ			02:45																											
ZZZZZZ			02:49																											
ZZZZZZ			02:54																											
ZZZZZZ			02:58																											
ZZZZZZ			03:03																											
ZZZZZZ			03:07																											
CCV 240-328800/222			03:12																											
CCB 240-328800/223			03:16																											
ZZZZZZ			03:21																											
ZZZZZZ			03:25																											
ZZZZZZ			03:30																											
ZZZZZZ			03:34																											
ZZZZZZ			03:39																											
ZZZZZZ			03:43																											
ZZZZZZ			03:48																											
ZZZZZZ			03:52																											
ZZZZZZ			03:57																											
ZZZZZZ			04:01																											
CCV 240-328800/234			04:05																											
CCB 240-328800/235			04:10																											
ZZZZZZ			04:14																											
CCV 240-328800/237			04:19																											
CCB 240-328800/238			04:23																											
CCVL 240-328800/239			04:28																											
ZZZZZZ			04:32																											
ZZZZZZ			04:37																											
ZZZZZZ			04:41																											
ZZZZZZ			04:46																											
ZZZZZZ			04:50																											
ZZZZZZ			04:55																											
ZZZZZZ			04:59																											
ZZZZZZ			05:04																											
ZZZZZZ			05:08																											
CCV 240-328800/249			05:13																											
CCB 240-328800/250			05:17																											
ZZZZZZ			05:22																											
ZZZZZZ			05:26																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			05:31																											
ZZZZZZ			05:35																											
ZZZZZZ			05:39																											
ZZZZZZ			05:44																											
ZZZZZZ			05:48																											
ZZZZZZ			05:53																											
CCV 240-328800/259			05:57																											
CCB 240-328800/260			06:02																											
CCV 240-328800/261			06:06																											
CCB 240-328800/262			06:11																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			16:13																									
ICIS 240-328903/2			16:17	X																								
STD1 240-328903/3 IC	1		16:21	X																								
STD2 240-328903/4 IC	1		16:26	X																								
STD3 240-328903/5 IC	1		16:30	X																								
STD4 240-328903/6 IC	1		16:35	X																								
ICV 240-328903/7	1		16:39	X																								
ICB 240-328903/8	1		16:44	X																								
ICVL 240-328903/9	1		16:48	X																								
ICSA 240-328903/10	1		16:53	X																								
ICSAB 240-328903/11	1		16:57	X																								
CCV 240-328903/12	1		17:02	X																								
CCB 240-328903/13	1		17:06	X																								
ZZZZZZ			17:15																									
240-95742-7	1	R	17:20	X																								
240-95742-7	1	D	17:24	X																								
ZZZZZZ			17:29																									
ZZZZZZ			17:33																									
ZZZZZZ			17:38																									
ZZZZZZ			17:42																									
ZZZZZZ			17:47																									
ZZZZZZ			17:51																									
ZZZZZZ			17:56																									
CCV 240-328903/24	1		18:00	X																								
CCB 240-328903/25	1		18:04	X																								
ZZZZZZ			18:09																									
ZZZZZZ			18:13																									
ZZZZZZ			18:18																									
ZZZZZZ			18:22																									
ZZZZZZ			18:27																									
ZZZZZZ			18:31																									
ZZZZZZ			18:36																									
ZZZZZZ			18:40																									
ZZZZZZ			18:44																									
ZZZZZZ			18:49																									
CCV 240-328903/36			18:53																									
CCB 240-328903/37			18:58																									
CCV 240-328903/38			19:02																									
CCB 240-328903/39			19:07																									
CCVL 240-328903/40	1		19:11	X																								
ZZZZZZ			19:16																									
ZZZZZZ			19:20																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			19:25																									
CCV 240-328903/44			19:29																									
CCB 240-328903/45			19:33																									
ZZZZZZ			19:38																									
ZZZZZZ			19:42																									
ZZZZZZ			19:47																									
ZZZZZZ			19:51																									
ZZZZZZ			19:56																									
ZZZZZZ			20:00																									
ZZZZZZ			20:05																									
ZZZZZZ			20:09																									
ZZZZZZ			20:14																									
ZZZZZZ			20:18																									
CCV 240-328903/56			20:22																									
CCB 240-328903/57			20:27																									
ZZZZZZ			20:31																									
ZZZZZZ			20:36																									
ZZZZZZ			20:40																									
ZZZZZZ			20:45																									
ZZZZZZ			20:49																									
ZZZZZZ			20:54																									
ZZZZZZ			20:58																									
ZZZZZZ			21:03																									
ZZZZZZ			21:07																									
ZZZZZZ			21:12																									
CCV 240-328903/68			21:16																									
CCB 240-328903/69			21:21																									
ZZZZZZ			21:25																									
ZZZZZZ			21:29																									
ZZZZZZ			21:34																									
CCV 240-328903/73			21:38																									
CCB 240-328903/74			21:43																									
CCVL 240-328903/75			21:47																									
ZZZZZZ			21:52																									
ZZZZZZ			21:56																									
ZZZZZZ			22:01																									
ZZZZZZ			22:05																									
ZZZZZZ			22:10																									
ZZZZZZ			22:14																									
ZZZZZZ			22:18																									
ZZZZZZ			22:23																									
ZZZZZZ			22:27																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
CCV 240-328903/85			22:32																									
CCB 240-328903/86			22:36																									
ZZZZZZ			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:50																									
ZZZZZZ			22:54																									
ZZZZZZ			22:58																									
ZZZZZZ			23:03																									
ZZZZZZ			23:07																									
ZZZZZZ			23:12																									
ZZZZZZ			23:16																									
ZZZZZZ			23:21																									
CCV 240-328903/97			23:25																									
CCB 240-328903/98			23:30																									
ZZZZZZ			23:34																									
CCV 240-328903/100			23:38																									
CCB 240-328903/101			23:43																									
ZZZZZZ			23:47																									
ZZZZZZ			23:52																									
ZZZZZZ			23:56																									
ZZZZZZ			00:01																									
ZZZZZZ			00:05																									
ZZZZZZ			00:10																									
ZZZZZZ			00:14																									
ZZZZZZ			00:19																									
ZZZZZZ			00:23																									
CCV 240-328903/111			00:27																									
CCB 240-328903/112			00:32																									
CCV 240-328903/113			00:36																									
CCB 240-328903/114			00:41																									

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-327850/1-A			13:54	X																								
IC 240-327850/2-A			13:56	X																								
IC 240-327850/3-A			13:58	X																								
IC 240-327850/4-A			14:00	X																								
IC 240-327850/5-A			14:02	X																								
IC 240-327850/6-A			14:04	X																								
ICV 240-327850/7-A	1		14:07	X																								
ICB 240-327850/8-A	1		14:09	X																								
CRA 240-327850/9-A	1		14:11	X																								
CCV 240-327850/10-A			14:13																									
CCB 240-327850/11-A			14:15																									
ZZZZZZ			14:18																									
ZZZZZZ			14:19																									
ZZZZZZ			14:21																									
ZZZZZZ			14:23																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
CCV 240-327850/10-A			14:38																									
CCB 240-327850/11-A			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:47																									
ZZZZZZ			14:49																									
ZZZZZZ			14:51																									
ZZZZZZ			14:53																									
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			14:59																									
ZZZZZZ			15:00																									
CCV 240-327850/10-A			15:02																									
CCB 240-327850/11-A			15:04																									
ZZZZZZ			15:07																									
ZZZZZZ			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:12																									
ZZZZZZ			15:14																									
ZZZZZZ			15:16																									
ZZZZZZ			15:19																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:21																									
ZZZZZZ			15:23																									
ZZZZZZ			15:25																									
CCV 240-327850/10-A			15:27																									
CCB 240-327850/11-A			15:29																									
ZZZZZZ			15:31																									
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
ZZZZZZ			15:39																									
ZZZZZZ			15:41																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
CCV 240-327850/10-A			15:50																									
CCB 240-327850/11-A			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
CCV 240-327850/10-A			16:14																									
CCB 240-327850/11-A			16:16																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
ZZZZZZ			16:28																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
CCV 240-327850/10-A			16:38																									
CCB 240-327850/11-A			16:40																									
ZZZZZZ			16:42																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:52																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
CCV 240-327850/10-A	1		17:02	X																								
CCB 240-327850/11-A	1		17:03	X																								
ZZZZZZ			17:06																									
MB 240-327507/1-A	1	T	17:08	X																								
LCS 240-327507/2-A	1	T	17:10	X																								
240-95742-2	1	T	17:12	X																								
240-95742-2 MS	1	T	17:14	X																								
240-95742-2 MSD	1	T	17:16	X																								
240-95742-2	1	D	17:18	X																								
240-95742-3	1	T	17:20	X																								
240-95742-3	1	D	17:22	X																								
ZZZZZZ			17:24																									
ZZZZZZ			17:26																									
CCV 240-327850/10-A	1		17:30	X																								
CCB 240-327850/11-A	1		17:32	X																								
240-95742-4	1	T	17:34	X																								
CCV 240-327850/10-A	1		17:36	X																								
CCB 240-327850/11-A	1		17:38	X																								
240-95742-4	1	D	17:40	X																								
240-95742-5	1	T	17:42	X																								
240-95742-5	1	D	17:44	X																								
240-95742-6	1	T	17:46	X																								
240-95742-6	1	D	17:48	X																								
240-95742-7	1	T	17:50	X																								
240-95742-7	1	D	17:52	X																								
ZZZZZZ			17:54																									
ZZZZZZ			17:56																									
ZZZZZZ			17:58																									
CCV 240-327850/10-A	1		18:00	X																								
CCB 240-327850/11-A	1		18:02	X																								
ZZZZZZ			18:05																									
ZZZZZZ			18:07																									
ZZZZZZ			18:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			18:11																									
ZZZZZZ			18:13																									
ZZZZZZ			18:15																									
ZZZZZZ			18:16																									
ZZZZZZ			18:18																									
ZZZZZZ			18:20																									
ZZZZZZ			18:22																									
CCV 240-327850/10-A			18:24																									
CCB 240-327850/11-A			18:26																									
ZZZZZZ			18:29																									
ZZZZZZ			18:30																									
ZZZZZZ			18:32																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
ZZZZZZ			18:38																									
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:44																									
ZZZZZZ			18:47																									
CCV 240-327850/10-A			18:48																									
CCB 240-327850/11-A			18:51																									
ZZZZZZ			18:53																									
ZZZZZZ			18:55																									
ZZZZZZ			18:57																									
ZZZZZZ			18:59																									
ZZZZZZ			19:01																									
ZZZZZZ			19:03																									
ZZZZZZ			19:05																									
ZZZZZZ			19:07																									
ZZZZZZ			19:09																									
ZZZZZZ			19:10																									
CCV 240-327850/10-A			19:12																									
CCB 240-327850/11-A			19:14																									
ZZZZZZ			19:17																									
ZZZZZZ			19:19																									
ZZZZZZ			19:21																									
ZZZZZZ			19:23																									
ZZZZZZ			19:25																									
ZZZZZZ			19:27																									
ZZZZZZ			19:29																									
ZZZZZZ			19:31																									
ZZZZZZ			19:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			19:35																									
CCV 240-327850/10-A			19:38																									
CCB 240-327850/11-A			19:40																									
ZZZZZZ			19:42																									
ZZZZZZ			19:44																									
ZZZZZZ			19:46																									
ZZZZZZ			19:48																									
ZZZZZZ			19:50																									
ZZZZZZ			19:52																									
ZZZZZZ			19:54																									
ZZZZZZ			19:56																									
ZZZZZZ			19:58																									
ZZZZZZ			20:00																									
CCV 240-327850/10-A			20:02																									
CCB 240-327850/11-A			20:04																									
ZZZZZZ			20:06																									
ZZZZZZ			20:08																									
ZZZZZZ			20:11																									
ZZZZZZ			20:14																									
ZZZZZZ			20:16																									
ZZZZZZ			20:18																									
ZZZZZZ			20:20																									
ZZZZZZ			20:22																									
ZZZZZZ			20:25																									
ZZZZZZ			20:26																									
CCV 240-327850/10-A			20:29																									
CCB 240-327850/11-A			20:31																									
ZZZZZZ			20:33																									
ZZZZZZ			20:35																									
ZZZZZZ			20:37																									
ZZZZZZ			20:39																									
ZZZZZZ			20:41																									
ZZZZZZ			20:43																									
ZZZZZZ			20:45																									
ZZZZZZ			20:47																									
ZZZZZZ			20:49																									
ZZZZZZ			20:51																									
CCV 240-327850/10-A			20:53																									
CCB 240-327850/11-A			20:55																									
ZZZZZZ			20:57																									
ZZZZZZ			20:59																									
ZZZZZZ			21:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/21/2018 13:54 End Date: 05/21/2018 21:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			21:03																									
ZZZZZZ			21:05																									
ZZZZZZ			21:07																									
ZZZZZZ			21:09																									
CCV 240-327850/10-A			21:11																									
CCB 240-327850/11-A			21:13																									
ZZZZZZ			21:15																									
CRA 240-327850/9-A			21:17																									
CCV 240-327850/10-A			21:19																									
CCB 240-327850/11-A			21:21																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328800/3 IC	10:55	98		98		101		98		102	
STD2 240-328800/4 IC	10:59	94		97		99		97		101	
STD3 240-328800/5 IC	11:03	93		95		98		94		98	
STD4 240-328800/6 IC	11:08	94		96		98		99		101	
ICV 240-328800/7	11:12	95		96		99		97		103	
ICB 240-328800/8	11:17	95		95		98		100		104	
ICVL 240-328800/9	11:21	99		98		102		103		106	
ICSA 240-328800/10	11:26	92		96		99		95		99	
ICSAB 240-328800/11	11:30	88		96		98		94		99	
CCV 240-328800/113	19:06	83		84		86		91		96	
CCB 240-328800/114	19:10	85		83		85		93		95	
MB 240-327506/1-A	19:15	83		83		87		93		95	
LCS 240-327506/2-A	19:19	81		83		88		91		95	
240-95742-2	19:46	83		84		88		91		95	
240-95742-2	19:50	82		85		88		89		94	
240-95742-3	19:55	81		84		86		89		93	
CCV 240-328800/125	19:59	82		84		87		90		96	
CCB 240-328800/126	20:04	86		82		86		92		98	
240-95742-3	20:08	85		83		88		90		94	
240-95742-4	20:12	79		82		85		85		90	
240-95742-4	20:17	77		82		83		84		91	
240-95742-5	20:21	78		78		80		88		91	
240-95742-5	20:26	79		79		81		87		89	
240-95742-6	20:30	78		79		81		86		90	
240-95742-6	20:35	77		77		80		84		89	
240-95742-7	20:39	76		75		78		83		87	
240-95742-7	20:44	77		74		80		83		89	
CCV 240-328800/137	20:53	82		82		85		91		96	
CCB 240-328800/138	20:57	82		81		83		92		95	
CCVL 240-328800/181	00:09	69		72		73		83		90	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328800/3 IC	10:55	103		104		105					
STD2 240-328800/4 IC	10:59	105		103		101					
STD3 240-328800/5 IC	11:03	106		105		99					
STD4 240-328800/6 IC	11:08	108		107		105					
ICV 240-328800/7	11:12	107		108		107					
ICB 240-328800/8	11:17	108		108		106					
ICVL 240-328800/9	11:21	108		111		110					
ICSA 240-328800/10	11:26	107		109		105					
ICSAB 240-328800/11	11:30	108		107		102					
CCV 240-328800/113	19:06	107		105		102					
CCB 240-328800/114	19:10	104		104		107					
MB 240-327506/1-A	19:15	104		103		105					
LCS 240-327506/2-A	19:19	103		104		105					
240-95742-2	19:46	103		102		102					
240-95742-2	19:50	99		102		101					
240-95742-3	19:55	101		99		100					
CCV 240-328800/125	19:59	106		106		103					
CCB 240-328800/126	20:04	105		106		105					
240-95742-3	20:08	103		104		100					
240-95742-4	20:12	100		102		92					
240-95742-4	20:17	99		99		93					
240-95742-5	20:21	98		98		101					
240-95742-5	20:26	97		98		100					
240-95742-6	20:30	98		100		98					
240-95742-6	20:35	98		97		98					
240-95742-7	20:39	98		98		93					
240-95742-7	20:44	102		101		99					
CCV 240-328800/137	20:53	106		107		107					
CCB 240-328800/138	20:57	98		101		105					
CCVL 240-328800/181	00:09	94		96		97					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/27/2018 End Date: 05/27/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328903/3 IC	16:21	101		101		100		99		100	
STD2 240-328903/4 IC	16:26	98		98		99		97		99	
STD3 240-328903/5 IC	16:30	98		98		100		96		97	
STD4 240-328903/6 IC	16:35	95		96		100		99		99	
ICV 240-328903/7	16:39	97		101		100		98		101	
ICB 240-328903/8	16:44	100		97		99		100		100	
ICVL 240-328903/9	16:48	101		99		102		102		102	
ICSA 240-328903/10	16:53	95		98		99		94		99	
ICSAB 240-328903/11	16:57	92		99		99		96		99	
CCV 240-328903/12	17:02	95		101		102		99		102	
CCB 240-328903/13	17:06	97		98		100		102		102	
240-95742-7	17:20	95		102		104		100		104	
240-95742-7	17:24	96		102		107		101		104	
CCV 240-328903/24	18:00	104		109		112		106		106	
CCB 240-328903/25	18:04	103		107		107		107		106	
CCVL 240-328903/40	19:11	104		108		106		107		108	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-95742-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/27/2018 End Date: 05/27/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328903/3 IC	16:21	102		106		105					
STD2 240-328903/4 IC	16:26	104		107		100					
STD3 240-328903/5 IC	16:30	106		108		98					
STD4 240-328903/6 IC	16:35	104		106		105					
ICV 240-328903/7	16:39	106		109		103					
ICB 240-328903/8	16:44	104		108		103					
ICVL 240-328903/9	16:48	106		108		105					
ICSA 240-328903/10	16:53	105		107		100					
ICSAB 240-328903/11	16:57	108		111		101					
CCV 240-328903/12	17:02	107		111		105					
CCB 240-328903/13	17:06	107		109		106					
240-95742-7	17:20	109		112		105					
240-95742-7	17:24	109		111		105					
CCV 240-328903/24	18:00	112		115		107					
CCB 240-328903/25	18:04	109		112		107					
CCVL 240-328903/40	19:11	110		112		109					

VOA Calibration Calculations:

Initial Calibration 5/24/2018
Instrument A3UX12

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	8790	1267892	20	0.2773	0.2773
1	15949	1335878	20	0.2388	0.2388
10	185998	1378125	20	0.2699	0.2699
20	391958	1466112	20	0.2673	0.2673
30	610011	1596000	20	0.2548	0.2548
40	860920	1607310	20	0.2678	0.2678
60	1338647	1747396	20	0.2554	0.2554
			Average	0.2616	0.2616
			Standard Deviation	0.0129	
			RSD	0.0492	
			%RSD	4.9189	4.9

Continuing Calibration 05/26/2018@ 11:37
Instrument A3UX12

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	438679	1612485	20	0.2721	3.995	0.2721	4

MSA
SDG 240-95742-1

SAMPLE IDENTIFICATION	MSA-MW-20D-051618
COMPOUND	Trichloroethene
COMPOUND AREA	331992
INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	1
INTERNAL STANDARD AREA	1523440
AVERAGE RRF	0.2616
VOLUME OF SAMPLE (ml)	5
VOLUME EXTRACT (ml)	5
INJECTION VOLUME (µl)	1

CONCENTRATION = 16.66 ug/L

SVOA Calibration Calculations:

Initial Calibration 5/22/2018
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
50	5398	159405	400	0.2709	0.27090
100	11579	156856	400	0.2953	0.29530
200	21331	151288	400	0.2820	0.28200
500	56845	169178	400	0.2688	0.26880
1000	103804	157920	400	0.2629	0.26290
1500	216110	167117	400	0.3448	0.34480
2000	245701	171903	400	0.2859	0.28590
2500	308850	171140	400	0.2887	0.28870
			Average	0.28742	0.2874
			Standard Deviation	0.0257	
			RSD	0.0893	
			%RSD	8.93051	8.9

Continuing Calibration 05/24/2018 @ 6:52
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1000	101995	164379	400	0.2482	-13.64136	0.2482	-13.6

MRC Groundwater
SDG 240-95742-1

SAMPLE IDENTIFICATION	MSA-MW-4-051518
COMPOUND	1,4-Dioxane
COMPOUND AREA	55966
INTERNAL STANDARD AMOUNT (ng)	400
DILUTION FACTOR	1
INTERNAL STANDARD AREA	124885
AVERAGE RRF	0.2874
VOLUME OF SAMPLE	270
VOLUME OF EXTRACT	5
CONCENTRATION =	11.5503 ug/L

Calculation DRO	**Sample**		
	MSA-MW-20S-051618		
Target Analyte	C10-C32		
Analyte Response	38080141		
TPH Response	850533.076	ug/l	
Dilution Factor (DF)	1		
Weight Sample	0.28	L	
Final Volume	5	ml	
	on column amount	44.77208715	
		799.50	ug/L

Sample Report

Sample Table

Sample Name	240-95742-g-7-a
Data File Name	134SMPL.d
Data Path Name	D:\Analytical Runs\I10052518A.b
Acq Date Time	2018-05-25T20:39:40-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

SAMPLE MSA-MW-20D-051618

COPPER 23 ug/L

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	3.869	3.869	4.67	280277	0.00	10000	
Be	9	45	2	NoGas	1.230	1.230	2.06	6877	0.02	2000	
B	11	45	2	NoGas	21.527	21.527	2.01	67653	0.03	300	
Na	23	45	1	He	34634.934	34634.934	0.77	70192079	0.05	500000	
Mg	24	45	1	He	10143.022	10143.022	3.01	11212218	0.09	500000	
Al	27	45	1	He	323.455	323.455	2.52	251467	0.13	200000	
K	39	45	1	He	1285.124	1285.124	0.96	2606304	0.05	500000	
Ca	44	45	1	He	14165.240	14165.240	2.18	519528	2.73	500000	
Ti	47	45	1	He	0.278	0.278	85.36	177	0.16	2500	
V	51	45	1	He	0.092	0.092	109.85	584	0.02	10000	
Cr	52	45	1	He	0.883	0.883	3.72	8028	0.01	10000	
Mn	55	45	1	He	1458.397	1458.397	3.04	9266374	0.02	10000	
Fe	56	45	1	He	47.281	47.281	3.33	310867	0.02	200000	
Co	59	45	1	He	123.676	123.676	1.56	1015857	0.01	5000	
Ni	60	45	1	He	47.657	47.657	1.46	94685	0.05	10000	
Cu	63	45	1	He	22.984	22.984	0.55	117297	0.02	10000	
Zn	66	45	1	He	99.347	99.347	2.83	120179	0.08	10000	
As	75	45	1	He	-0.058	-0.058	-933.11	706	-0.01	10000	
Se	78	103	1	He	0.537	0.537	28.56	1039	0.05	10000	
Sr	88	103	1	He	125.035	125.035	2.23	1043168	0.01	10000	
Mo	95	103	1	He	0.056	0.056	1.73	209	0.03	2000	
Ag	107	103	1	He	0.016	0.016	34.86	134	0.01	100	
Cd	111	115	1	He	3.684	3.684	1.65	4099	0.09	4000	
Sn	118	115	1	He	0.371	0.371	23.37	2764	0.01	2000	
Sb	123	115	1	He	0.158	0.158	9.61	1049	0.02	200	
Ba	137	115	1	He	114.370	114.370	0.49	129195	0.09	10000	
W	182	159	1	He	0.038	0.038	32.48	427	0.01	2500	
Tl	205	165	1	He	0.092	0.092	8.32	803	0.01	2000	
Pb	208	165	1	He	0.241	0.241	3.21	4082	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	2703300	2.23	3574950	75.62	60	120	
Sc	45	1	He	2172855	0.86	2893684	75.09	60	120	
Sc	45	2	NoGas	8435880	0.93	10815696	78.00	60	120	
Rh	103	1	He	2419377	0.82	2906302	83.25	60	120	
In	115	1	He	1781778	1.20	2047393	87.03	60	120	
Tb	159	1	He	2362246	0.43	2415342	97.80	60	120	
Ho	165	1	He	2045365	2.54	2098261	97.48	60	120	
Bi	209	1	He	1426189	0.75	1533260	93.02	60	120	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 16, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PERCHLORATE**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
GROUNDWATER SAMPLING
SAMPLE DELIVERY GROUP (SDG) 240-95742-2

SAMPLES: 2/Aqueous/Perchlorate

MSA-MW-20D-051618 MSA-MW-20I-051618

Overview

The sample set for LMC-MSA, SDG 240-95742-2 consisted of two (2) aqueous environmental samples. The two (2) aqueous environmental samples were analyzed for perchlorate. No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on May 16, 2018 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Method 6850 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, sample preservation/holding times, initial/continuing calibrations, laboratory method/preparation blanks, surrogate spike recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard results, interference check standard results, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The result from chromatographic data which did not meet all the qualitative criteria for a positive identification was reported as an Estimated Maximum Possible Concentration (EMPC) by the laboratory for sample MSA-MW-20I-051618. This result was qualified as estimated, (J).

- The detected result reported below the Reporting Limit (RL) but above the Method Detection Limit (MDL) in sample MSA-MW-20I-051618 was qualified as estimated, (J).

Notes

The non-detected result in sample MSA-MW-20D-051618 was reported to the MDL.

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: The detected result was reported as an EMPC. The detected result below the RL was estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618		
SDG: 240-95742-2	LAB_ID	240-95742-7			240-95742-6		
FRACTION: MISC	SAMP_DATE	5/16/2018			5/16/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.082	U		0.1	J	PW

Appendix B

Results as Reported by the Laboratory

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: MSA-MW-20I-051618 Lab Sample ID: 240-95742-6

Matrix: Water Lab File ID: Perc_06082018A_023.d

Analysis Method: 6850 Date Collected: 05/16/2018 12:10

Extraction Method: Filtration Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) Date Analyzed: 06/08/2018 19:39

Con. Extract Vol.: 4.0(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.10	J I	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: MSA-MW-20D-051618 Lab Sample ID: 240-95742-7

Matrix: Water Lab File ID: Perc_06082018A_024.d

Analysis Method: 6850 Date Collected: 05/16/2018 14:53

Extraction Method: Filtration Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) Date Analyzed: 06/08/2018 19:52

Con. Extract Vol.: 4.0(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

Appendix C

Support Documentation

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180608-59453.b\Perc_06082018A_023.d
Lims ID: 240-95742-F-6-A
Client ID: MSA-MW-20I-051618
Sample Type: Client
Inject. Date: 08-Jun-2018 19:39:33 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: 240-95742-F-6-A, Sample
Operator ID: Instrument ID: A5

Method: \\ChromNA\Sacramento\ChromData\A5\20180608-59453.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 13-Jun-2018 08:35:12 Calib Date: 05-Jun-2018 19:29:04
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180606-59257.b\Perc_06052018A_012.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK007

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									R
99.0 > 83.0	8.730	8.662	0.068	0.996	230505	0.1008		2384	R
101.0 > 85.0	8.781	8.662	0.119	1.002	50496		4.56(2.30-3.80)	914	
* 1 18-O Perchlorate									
107.0 > 89.0	8.764	8.669	0.095		23045531	10.0		1223	
109.0 > 91.0	8.761	8.669	0.092		7396725		3.12(2.30-3.80)	313	

QC Flag Legend

Processing Flags
R - Failed Signal Ratio Test

230505 *10*4/(230455*0.9924*4) = 0.1007875 ng/ml

1.81.9 3.4/3.5

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryon	Lab PM: McFadden, John	Carrier Tracking No(s): 1805	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Germantown	TAT Requested (days): standard			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			Other:
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: 24011891 112IC08424			
Site: MSA Dumped.	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas (8015C)	Das (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-051518	5/15/18	—	G	Water			2	-	-	-	-	-	-		
MSA-MW-25S-051518		1013					3	2	2	2	1	1	-		
MSA-MW-25I-051518		1129					3	-	-	2	1	1	-		
MSA-MW-4-051518		1521					3	2	2	2	1	1	-		
MSA-MW-20S-051618	5/16/18	1102					3	2	2	2	1	1	-		
MSA-MW-20I-051618		1210					3	-	-	2	1	1	1		
MSA-MW-20D-051618		1453					3	-	-	2	1	1	1		

240-95742 Chain of Custody

180325

BALTIMORE

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: Walt Pryon	Date/Time: 5/16/18 1555	Company: TtEnk	Received by:	Date/Time: 5/16/18 1555	Company: TtA
Relinquished by:	Date/Time: 5/16/18 16:06	Company	Received by: GDP	Date/Time: 5-17-18 945	Company: TtL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Page 58 of 61

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 45742**
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 5-17-18 Opened on 5-17-18

Cooler unpacked by: AP

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ~~See Multiple Cooler Form~~
   IR GUN# IR-8 (CF **+0.1** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF **-1.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC732776**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # COOLER	Yes	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: AP

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 95742
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA 2	8 2	1.8	1.9	ICE 2
		3.4	3.5	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-25S-051518	240-95742-J-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25S-051518	240-95742-K-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-25I-051518	240-95742-F-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-25I-051518	240-95742-G-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-4-051518	240-95742-J-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-4-051518	240-95742-K-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-20S-051618	240-95742-J-5	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-20S-051618	240-95742-K-5	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-20I-051618	240-95742-G-6	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-20I-051618	240-95742-H-6	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-20D-051618	240-95742-G-7	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-20D-051618	240-95742-H-7	Plastic 500ml - w/ Nitric - Dis.	<2		

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018 - Dump Rd.

Report Number: 240-95742-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/17/2018 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9º C and 3.5º C.

PERCHLORATE

Samples MSA-MW-20I-051618 (240-95742-6) and MSA-MW-20D-051618 (240-95742-7) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 05/30/2018 and analyzed on 06/08/2018.

The ion ratio is outside of control limits in the following sample: MSA-MW-20I-051618 (240-95742-6). Reanalysis confirms the result. The sample detection is below 1/2 the reporting limit and has no adverse impact on data quality; therefore, the data is reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 320-226303.

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

Qualifiers

LCMS

Qualifier	Qualifier Description
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-95742-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-95742-6	MSA-MW-20I-051618	Water	05/16/18 12:10	05/17/18 09:45
240-95742-7	MSA-MW-20D-051618	Water	05/16/18 14:53	05/17/18 09:45

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-95742-2

Method	Method Description	Protocol	Laboratory
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
Filtration	Sample Filtration	None	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/05/2018 19:29

Calibration ID: 39558

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		17001749	8.85				
UPPER LIMIT		25502624	9.85				
LOWER LIMIT		8500875	7.85				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-227464/13		17649302	8.83				
ICV 320-227464/14		17451004	8.83				
CCV 320-228148/1 CCVIS		24560535	8.67				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Sample No.: CCV 320-228148/1 Date Analyzed: 06/08/2018 14:04

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06082018A_004. Heated Purge: (Y/N) N

Calibration ID: 39558

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		24560535	8.67				
UPPER LIMIT		36840803	9.67				
LOWER LIMIT		12280268	7.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-228148/2		25322164	8.67				
CCB 320-228148/3		24959743	8.66				
CCV 320-228148/13		23644644	8.79				
CCB 320-228148/52		23376719	8.78				
MB 320-226303/1-A		24424834	8.82				
LCS 320-226303/2-A		23202961	8.81				
INF 320-226303/3-A		20722565	8.78				
240-95742-6	MSA-MW-20I-051618	23045531	8.76				
240-95742-7	MSA-MW-20D-051618	20846450	8.82				
240-95742-7 MS	MSA-MW-20D-051618 MS	19574596	8.83				
240-95742-7 MSD	MSA-MW-20D-051618 MSD	19409756	8.82				
CCV 320-228148/24		22724790	8.86				
CCVL 320-228148/50		23829382	8.87				
CCB 320-228148/51		23546350	8.89				

18OP = 18-O Perchlorate
18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab File ID: Perc_06082018A_018.d Lab Sample ID: MB 320-226303/1-A

Matrix: Water Date Extracted: 05/30/2018 18:48

Instrument ID: A5 Date Analyzed: 06/08/2018 18:33

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-226303/2-A	Perc_06082018A_019.d	06/08/2018 18:46
MSA-MW-20I-051618	240-95742-6	Perc_06082018A_023.d	06/08/2018 19:39
MSA-MW-20D-051618	240-95742-7	Perc_06082018A_024.d	06/08/2018 19:52
MSA-MW-20D-051618 MS	240-95742-7 MS	Perc_06082018A_025.d	06/08/2018 20:06
MSA-MW-20D-051618 MSD	240-95742-7 MSD	Perc_06082018A_026.d	06/08/2018 20:19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-226303/1-A

Matrix: Water Lab File ID: Perc_06082018A_018.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) Date Analyzed: 06/08/2018 18:33

Con. Extract Vol.: 4.0(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_019.d

Lab ID: LCS 320-226303/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.20	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_025.d

Lab ID: 240-95742-7 MS Client ID: MSA-MW-20D-051618 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	5.06	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_026.d

Lab ID: 240-95742-7 MSD Client ID: MSA-MW-20D-051618 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.02	100	1	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_020.d

Lab ID: INF 320-226303/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.13	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Instrument ID: A5 Start Date: 06/05/2018 17:42

Analysis Batch Number: 227464 End Date: 06/06/2018 01:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-227464/4		06/05/2018 17:42	1	Perc_06052018A_004.d	Anion HR 4.6(mm)
STD01 320-227464/5 IC		06/05/2018 17:55	1	Perc_06052018A_005.d	Anion HR 4.6(mm)
STD02 320-227464/6 IC		06/05/2018 18:09	1	Perc_06052018A_006.d	Anion HR 4.6(mm)
STD03 320-227464/7 IC		06/05/2018 18:22	1	Perc_06052018A_007.d	Anion HR 4.6(mm)
STD04 320-227464/8 IC		06/05/2018 18:35	1	Perc_06052018A_008.d	Anion HR 4.6(mm)
STD05 320-227464/9 ICISAV		06/05/2018 18:49	1	Perc_06052018A_009.d	Anion HR 4.6(mm)
STD06 320-227464/10 IC		06/05/2018 19:02	1	Perc_06052018A_010.d	Anion HR 4.6(mm)
STD07 320-227464/11 IC		06/05/2018 19:15	1	Perc_06052018A_011.d	Anion HR 4.6(mm)
STD08 320-227464/12 IC		06/05/2018 19:29	1	Perc_06052018A_012.d	Anion HR 4.6(mm)
CCB 320-227464/13		06/05/2018 19:42	1	Perc_06052018A_013.d	Anion HR 4.6(mm)
ICV 320-227464/14		06/05/2018 19:55	1	Perc_06052018A_014.d	Anion HR 4.6(mm)
CCV 320-227464/15		06/05/2018 20:08	1		Anion HR 4.6(mm)
CCVL 320-227464/16		06/05/2018 20:22	1		Anion HR 4.6(mm)
CCB 320-227464/17		06/05/2018 20:35	1		Anion HR 4.6(mm)
CCV 320-227464/29		06/05/2018 23:15	1		Anion HR 4.6(mm)
CCV 320-227464/37		06/06/2018 01:01	1		Anion HR 4.6(mm)
CCVL 320-227464/38		06/06/2018 01:15	1		Anion HR 4.6(mm)
CCB 320-227464/39		06/06/2018 01:28	1		Anion HR 4.6(mm)

6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2 Analy Batch No.: 227464

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:55 Calibration End Date: 06/05/2018 19:29 Calibration ID: 39558

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-227464/5	Perc_06052018A_005.d
Level 2	STD02 320-227464/6	Perc_06052018A_006.d
Level 3	STD03 320-227464/7	Perc_06052018A_007.d
Level 4	STD04 320-227464/8	Perc_06052018A_008.d
Level 5	STD05 320-227464/9	Perc_06052018A_009.d
Level 6	STD06 320-227464/10	Perc_06052018A_010.d
Level 7	STD07 320-227464/11	Perc_06052018A_011.d
Level 8	STD08 320-227464/12	Perc_06052018A_012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	+++++ 1.0037	+++++ 1.0267	0.9751 1.0273	0.9450	0.9764	Ave		0.9924				3.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Calibration / Perchlorate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	
RF Rounding:	0

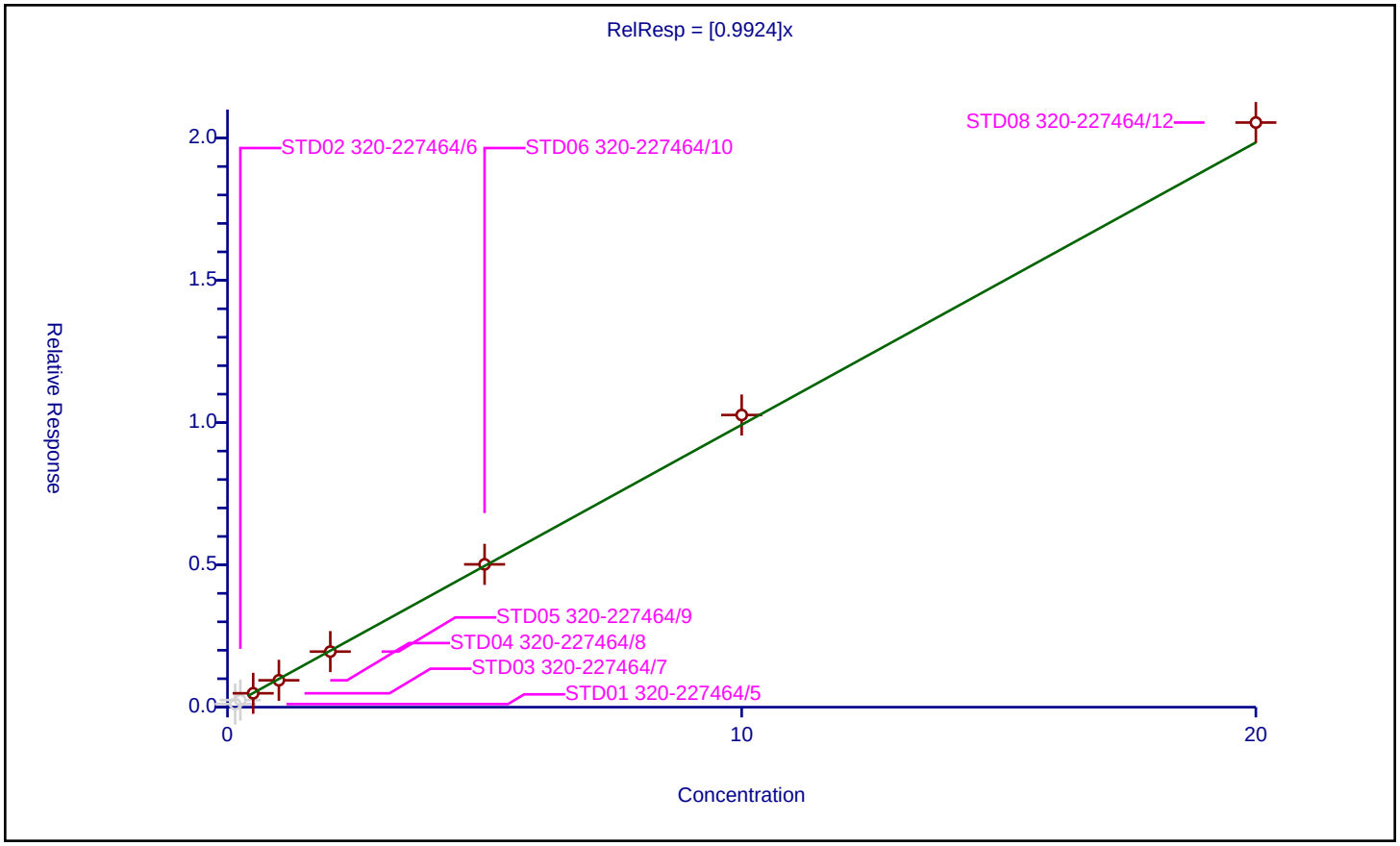
Curve Coefficients

Intercept:	0
Slope:	0.9924

Error Coefficients

Standard Error:	15900000
Relative Standard Error:	3.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD01 320-227464/5	0.15	0.10852	10.009008	18560895.0	0.723465	N
2	STD02 320-227464/6	0.25	0.249198	10.009008	17419637.0	0.996794	N
3	STD03 320-227464/7	0.5	0.487571	10.009008	17139081.0	0.975141	Y
4	STD04 320-227464/8	1.0	0.944954	10.009008	17359006.0	0.944954	Y
5	STD05 320-227464/9	2.0	1.952763	10.009008	17930166.0	0.976382	Y
6	STD06 320-227464/10	5.0	5.018611	10.009008	17172899.0	1.003722	Y
7	STD07 320-227464/11	10.0	10.267241	10.009008	15756832.0	1.026724	Y
8	STD08 320-227464/12	20.0	20.545435	10.009008	14675475.0	1.027272	Y



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Instrument ID: A5 Start Date: 06/08/2018 14:04

Analysis Batch Number: 228148 End Date: 06/09/2018 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-228148/1 CCVIS		06/08/2018 14:04	1	Perc_06082018A_004.d	Anion HR 4.6(mm)
CCVL 320-228148/2		06/08/2018 14:17	1	Perc_06082018A_005.d	Anion HR 4.6(mm)
CCB 320-228148/3		06/08/2018 14:30	1	Perc_06082018A_006.d	Anion HR 4.6(mm)
CCV 320-228148/13		06/08/2018 18:06	1	Perc_06082018A_016.d	Anion HR 4.6(mm)
CCB 320-228148/52		06/08/2018 18:19	1	Perc_06082018A_017.d	Anion HR 4.6(mm)
MB 320-226303/1-A		06/08/2018 18:33	1	Perc_06082018A_018.d	Anion HR 4.6(mm)
LCS 320-226303/2-A		06/08/2018 18:46	1	Perc_06082018A_019.d	Anion HR 4.6(mm)
INF 320-226303/3-A		06/08/2018 18:59	1	Perc_06082018A_020.d	Anion HR 4.6(mm)
ZZZZZ		06/08/2018 19:12	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 19:26	1		Anion HR 4.6(mm)
240-95742-6		06/08/2018 19:39	1	Perc_06082018A_023.d	Anion HR 4.6(mm)
240-95742-7		06/08/2018 19:52	1	Perc_06082018A_024.d	Anion HR 4.6(mm)
240-95742-7 MS		06/08/2018 20:06	1	Perc_06082018A_025.d	Anion HR 4.6(mm)
240-95742-7 MSD		06/08/2018 20:19	1	Perc_06082018A_026.d	Anion HR 4.6(mm)
CCV 320-228148/24		06/08/2018 20:46	1	Perc_06082018A_028.d	Anion HR 4.6(mm)
ZZZZZ		06/08/2018 20:59	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 21:12	1		Anion HR 4.6(mm)
INF 320-226450/3-A		06/08/2018 21:26	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 21:39	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 21:52	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 22:05	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 22:19	1		Anion HR 4.6(mm)
CCV 320-228148/33		06/08/2018 22:45	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 22:59	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:12	1		Anion HR 4.6(mm)
INF 320-226711/3-A		06/08/2018 23:25	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:39	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:52	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:05	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:18	1		Anion HR 4.6(mm)
CCV 320-228148/42		06/09/2018 00:45	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:58	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:12	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:25	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:38	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:52	1		Anion HR 4.6(mm)
INF 320-225721/6-A		06/09/2018 02:05	1		Anion HR 4.6(mm)
CCV 320-228148/49		06/09/2018 02:32	1		Anion HR 4.6(mm)
CCVL 320-228148/50		06/09/2018 02:45	1	Perc_06082018A_055.d	Anion HR 4.6(mm)

6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Instrument ID: A5 Start Date: 06/08/2018 14:04

Analysis Batch Number: 228148 End Date: 06/09/2018 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 320-228148/51		06/09/2018 02:58	1	Perc_06082018A_056.d	Anion HR 4.6(mm)

6850

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab Sample ID: CCV 320-228148/1 Calibration Date: 06/08/2018 14:04

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	1.009		2.03	2.00	1.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab Sample ID: CCVL 320-228148/2 Calibration Date: 06/08/2018 14:17

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9640		0.486	0.500	-2.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab Sample ID: CCV 320-228148/13 Calibration Date: 06/08/2018 18:06

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9620		0.969	1.00	-3.1	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab Sample ID: CCV 320-228148/24 Calibration Date: 06/08/2018 20:46

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.996		2.01	2.00	0.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Lab Sample ID: CCVL 320-228148/50 Calibration Date: 06/09/2018 02:45

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_055.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9032		0.455	0.500	-9.0	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-227464/4

Matrix: Water Lab File ID: Perc_06052018A_004.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/05/2018 17:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 227464 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-227464/13

Matrix: Water Lab File ID: Perc_06052018A_013.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/05/2018 19:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 227464 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-228148/3

Matrix: Water Lab File ID: Perc_06082018A_006.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/08/2018 14:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-228148/51

Matrix: Water Lab File ID: Perc_06082018A_056.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/09/2018 02:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-228148/52

Matrix: Water Lab File ID: Perc_06082018A_017.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/08/2018 18:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-95742-2

SDG No.:

Batch Number: 226303 Batch Start Date: 05/30/18 18:48 Batch Analyst: Rodriguez, Edson R

Batch Method: Filtration Batch End Date: 05/30/18 20:28

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00048		
MB 320-226303/1		Filtration, 6850		4.0 mL	4.0 mL	40 uL			
LCS 320-226303/2		Filtration, 6850		4.0 mL	4.0 mL	40 uL	20 uL		
INF 320-226303/3		Filtration, 6850		4.0 mL	4.0 mL	40 uL	20 uL		
240-95742-F-6	MSA-MW-20I-051618	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL			
240-95742-F-7	MSA-MW-20D-051618	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL			
240-95742-F-7 MS	MSA-MW-20D-051618	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL	20 uL		
240-95742-F-7 MSD	MSA-MW-20D-051618	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL	20 uL		

Batch Notes	
BA/AG/H Cartridge ID	180503
Batch Comment	Sample labels match client IDs ERR 5/30/18
Filter #2 ID	0.22 um 00251378
Filter ID	0.45 Filter R7PA83892
Interference check solution ID	1249895
Internal Standard ID#	1128148
Pipette ID	FS007212010110/R40536G
Analyst ID - IS Reagent Drop	VPM
Analyst ID - IS Reagent Drop Witness	ERR
Analyst ID - TA Reagent Drop	VPM
Analyst ID - TA Reagent Drop Witness	ERR
Reagent Water ID	5/30/18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 24, 2018**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / SVOC / GRO / DRO/ SELECT TOTAL AND DISSOLVED METALS**
MSA – GROUNDWATER MONITORING – FULL REVIEW SAMPLE DELIVERY GROUP (SDG) 240-96003-1

SAMPLES: 8 / Aqueous /
VOC, SVOC, Select Total and Dissolved Metals

MSA-MW-22D-052118	MSA-MW-23D-052218	MSA-MW-23S-052218
MSA-MW-26S-052118	MSA-MW-41I-052218	MSA-MW-41S-052218
MSA-MW-42I-052118	MSA-MW-42S-052118	

4 / Aqueous /
GRO, DRO

MSA-MW-23S-052218	MSA-MW-26S-052118	MSA-MW-41S-052218
MSA-MW-42S-052118		

1/Trip Blank/
VOC

TB-052118

OVERVIEW

The sample set for MSA Groundwater Monitoring, SDG 240-96003-1, consists of eight (8) aqueous environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), gas range organics (C6-C10), diesel range organics (C10-C32) and select total and dissolved metals as referenced above. Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on May 21 and 22, 2018, and analyzed by Test America. Analyses were conducted in accordance to SW-846 Methods 8260C, 8270D, 8015C, 6020A and 7470A analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip/instrument blank results, ICP interference recoveries, surrogate spike recoveries, laboratory control sample results, matrix spike / matrix spike duplicate results, internal standard recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

- The VOC matrix spike / matrix spike duplicate (MS/MSD) percent recoveries (%Rs) for 2-chloroethyl vinyl ether were 0% for sample MSA-MW-22D-052118. The nondetected result reported for 2-chloroethyl vinyl ether in the affected samples was qualified as rejected (UR).

MINOR PROBLEMS

- The VOC initial calibration verification performed on 05/24/18 @ 14:59 on instrument A3UX12 had a percent difference (%D) that were greater than the 20% quality control limit for vinyl acetate. All samples were affected. The non-detected results for vinyl acetate were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration verifications performed on 05/31/18 @ 17:05 and 17:52 on instrument A3UX12 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, diisopropyl ether, ethyl tert-butyl ether, tert-amyl methyl ether and 1,2,3-trimethylbenzene. All samples were affected. The detected and non-detected results for the aforementioned compounds were qualified as estimated (J) and (UJ), respectively, in the affected samples.

- The metals continuing calibration verification %Rs on 05/26/2018 @ 2:18, 3:12 and 4:05 were above the quality control limits for beryllium. All total and dissolved sample results were affected. The detected results reported in the affected samples were qualified as estimated (J).

- The following VOC analyte was detected in the trip blank at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Tertiary-butyl alcohol	2.6 ug/L	< RL

The detected results reported below the reporting limit (RL) were qualified as non-detected, (U). Field quality control samples are not qualified for field blank contamination.

- The DRO surrogate recovery for o-terphenyl was below the quality control limit for sample MSA-MW-26S-052118. The laboratory re-prepared the sample 3 days past hold time and the surrogate recovery was within quality control limits. The reanalysis was used for validation. The detected result reported in the affected sample was qualified as estimated (J), as a result of hold time exceedances.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Nondetects were reported to the MDL.

The following samples were analyzed at a dilution. Detection limits of the non-detected results were elevated.

Sample	Compound	Dilution
MSA-MW-42S-052118	All VOCs	200X
MSA-MW-42I-052118	All VOCs	40X
MSA-MW-41S-052218	All VOCs	100X
MSA-MW-41I-052218	All VOCs	40X

A TIC search was performed for the compound chlorodifluoromethane.

The VOC laboratory control sample (LCS) had a percent recovery above the quality control limit for 1,1,2-trichlorotrifluoroethane. All samples were affected. No validation actions were required as all sample results for the aforementioned compound were nondetects.

It was noted that the VOC LCS was not analyzed for the following compounds: 1,2,3-trimethylbenzene, 1,2-dibromoethane, diisopropyl ether, ethyl tert-butyl ether and tert-amyl methyl ether. LCS recoveries could not be evaluated.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample MSA-MW-26S-052118 was re-prepared outside of hold time. Several initial and continuing calibration %Ds were noncompliant for the VOC fraction. The continuing calibration %R for beryllium was noncompliant. A contaminant was detected in the trip blank. The MS/MSD %Rs for 2-chloroethyl vinyl ether were 0%. A DRO surrogate recovery was noncompliant.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Detected results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Terri L Solomon

Tetra Tech
Terri Solomon
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE		0.32	U		0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,1-DICHLOROPROPENE		0.28	U		0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.35	U		0.35	U		0.35	U	
1,2,3-TRICHLOROPROPANE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.47	U		0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE		0.38	J	P	0.3	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE		0.3	U		0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE		0.29	U		0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE		0.23	U		0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE		0.34	U		0.34	U		0.34	U		0.34	U	
2-BUTANONE		1	U		1	U		1	U		1	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE		0.28	U		0.28	U		0.28	U		0.28	U	
2-HEXANONE		1.2	U		1.2	U		1.2	U		1.2	U	
4-CHLOROTOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE		0.29	U		0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE		0.71	U		0.71	U		0.71	U		0.71	U	
ACETONE		1.8	U		2.8	U	B	3	U	B	1.8	U	B
BENZENE		0.28	U		0.28	U		0.28	U		0.28	U	
BROMOBENZENE		0.31	U		0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.47	U		0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOFORM		0.43	U		0.43	U		0.43	U		0.43	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.46	U		0.46	U		0.46	U	
1,1,1-TRICHLOROETHANE	0.23	U		0.23	U		0.23	U	
1,1,2,2-TETRACHLOROETHANE	0.32	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.41	UJ	C	0.41	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE	0.25	U		0.25	U		0.25	U	
1,1-DICHLOROETHENE	0.33	J	P	0.27	U		0.27	U	
1,1-DICHLOROPROPENE	0.28	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE	0.35	U		0.35	U		0.35	U	
1,2,3-TRICHLOROPROPANE	0.54	U		0.54	U		0.54	U	
1,2,3-TRIMETHYLBENZENE	0.22	U		0.22	U		0.22	U	
1,2,4-TRICHLOROBENZENE	0.27	U		0.27	U		0.27	U	
1,2,4-TRIMETHYLBENZENE	0.24	U		0.24	U		0.24	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.47	U		0.47	U		0.47	U	
1,2-DIBROMOETHANE	0.23	U		0.23	U		0.23	U	
1,2-DICHLOROBENZENE	0.26	U		0.26	U		0.26	U	
1,2-DICHLOROETHANE	0.3	U		0.74	J	P	0.3	U	
1,2-DICHLOROPROPANE	0.3	U		0.3	U		0.3	U	
1,3-DICHLOROBENZENE	0.32	U		0.32	U		0.32	U	
1,3-DICHLOROPROPANE	0.29	U		0.29	U		0.29	U	
1,4-DICHLOROBENZENE	0.23	U		0.23	U		0.23	U	
2,2-DICHLOROPROPANE	0.34	U		0.34	U		0.34	U	
2-BUTANONE	1	U		1	U		1.2	J	P
2-CHLOROETHYL VINYL ETHER	0.65	UR	M	0.65	UR	M	0.65	UR	M
2-CHLOROTOLUENE	0.28	U		0.28	U		0.28	U	
2-HEXANONE	1.2	U		1.2	U		1.2	U	
4-CHLOROTOLUENE	0.23	U		0.23	U		0.23	U	
4-ISOPROPYLTOLUENE	0.29	U		0.29	U		0.29	U	
4-METHYL-2-PENTANONE	0.71	U		0.71	U		0.71	U	
ACETONE	1.8	U		2.5	U	B	11		
BENZENE	0.28	U		0.54	J	P	0.28	U	
BROMOBENZENE	0.31	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE	0.47	U		0.47	U		0.47	U	
BROMODICHLOROMETHANE	0.3	U		0.3	U		0.3	U	
BROMOFORM	0.43	U		0.43	U		0.43	U	
BROMOMETHANE	0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.34	U		0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE		0.35	U		0.35	U		0.35	U		0.35	U	
CHLOROBENZENE		0.32	U		0.32	U		0.62	J	P	0.32	U	
CHLORODIBROMOMETHANE		0.25	U		0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
CHLOROFORM		0.31	U		0.31	U		0.31	U		0.31	U	
CHLOROMETHANE		0.43	U		0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE		2			0.3	U		5.8			0.34	J	P
CIS-1,3-DICHLOROPROPENE		0.26	U		0.26	U		0.26	U		0.26	U	
DIBROMOMETHANE		0.46	U		0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER		0.44	U		0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER		0.35	U		0.35	U		0.35	U		0.35	U	
ETHYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE		0.36	U		0.36	U		0.36	U		0.36	U	
ISOPROPYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
M+P-XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.27	U		0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE		0.53	U		0.53	U		0.53	U		0.53	U	
NAPHTHALENE		0.25	U		0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.45	U		0.45	U		0.45	U		0.45	U	
O-XYLENE		0.28	U		0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE		0.27	U		0.27	U		0.27	U		0.27	U	
STYRENE		0.23	U		0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER		0.29	U		0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		4.6	UJ	C	4.6	UJ	C	4.6	UJ	C	4.6	U	
TETRACHLOROETHENE		0.3	U		0.3	U		0.3	U		0.3	U	
TOLUENE		0.23	U		0.23	U		0.23	U		0.23	U	
TOTAL XYLENES		0.24	U		0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE		17			0.33	U		0.88	J	P	0.33	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.34	U		0.34	U		0.34	U	
CARBON TETRACHLORIDE	0.35	U		0.35	U		0.35	U	
CHLOROBENZENE	0.32	U		1			0.32	U	
CHLORODIBROMOMETHANE	0.25	U		0.25	U		0.25	U	
CHLORODIFLUOROMETHANE	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE	0.41	U		0.41	U		0.41	U	
CHLOROFORM	0.31	U		0.31	U		0.31	U	
CHLOROMETHANE	0.43	U		0.43	U		0.43	U	
CIS-1,2-DICHLOROETHENE	58			1.3			0.3	U	
CIS-1,3-DICHLOROPROPENE	0.26	U		0.26	U		0.26	U	
DIBROMOMETHANE	0.46	U		0.46	U		0.46	U	
DICHLORODIFLUOROMETHANE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
DIISOPROPYL ETHER	0.44	U		0.44	U		0.44	U	
ETHYL TERT-BUTYL ETHER	0.35	U		0.35	U		0.35	U	
ETHYLBENZENE	0.26	U		0.26	U		0.26	U	
HEXACHLOROBUTADIENE	0.36	U		0.36	U		0.36	U	
ISOPROPYLBENZENE	0.21	U		0.21	U		0.21	U	
M+P-XYLENES	0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.27	U		0.27	U		0.27	U	
METHYLENE CHLORIDE	0.53	U		0.53	U		0.53	U	
NAPHTHALENE	0.25	U		0.25	U		0.25	U	
N-BUTYLBENZENE	0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE	0.45	U		0.45	U		0.45	U	
O-XYLENE	0.28	U		0.28	U		0.28	U	
SEC-BUTYLBENZENE	0.27	U		0.27	U		0.27	U	
STYRENE	0.23	U		0.23	U		0.23	U	
TERT-AMYL METHYL ETHER	0.29	U		0.29	U		0.29	U	
TERT-BUTYLBENZENE	0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL	4.6	U		4.6	UJ	C	4.6	U	
TETRACHLOROETHENE	0.3	U		0.3	U		0.3	U	
TOLUENE	0.23	U		0.23	U		0.23	U	
TOTAL XYLENES	0.24	U		0.24	U		0.24	U	
TRANS-1,2-DICHLOROETHENE	2			0.84	J	P	0.29	U	
TRANS-1,3-DICHLOROPROPENE	0.31	U		0.31	U		0.31	U	
TRICHLOROETHENE	0.39	J	P	0.33	U		0.33	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-20D-051618			MSA-MW-20I-051618			MSA-MW-20S-051618			MSA-MW-25I-051518		
SDG: 240-95742-1	LAB_ID	240-95742-7			240-95742-6			240-95742-5			240-95742-3		
FRACTION: OV	SAMP_DATE	5/16/2018			5/16/2018			5/16/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	UJ	C	0.28	UJ	C	0.28	UJ	C	0.28	UJ	C
VINYL CHLORIDE		0.45	U		0.45	U		2.7			0.45	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-25S-051518			MSA-MW-4-051518			TB-051518		
SDG: 240-95742-1	LAB_ID	240-95742-2			240-95742-4			240-95742-1		
FRACTION: OV	SAMP_DATE	5/15/2018			5/15/2018			5/15/2018		
MEDIA: WATER	QC_TYPE	NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL ACETATE		0.28	UJ	C	0.28	UJ	C	0.28	UJ	C
VINYL CHLORIDE		17			2			0.45	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-22D-052118			MSA-MW-23D-052218			MSA-MW-23S-052218			MSA-MW-26S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-2			240-96003-7			240-96003-6			240-96003-3		
FRACTION: OS	SAMP_DATE	5/21/2018			5/22/2018			5/22/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		0.37	U		4			0.34	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-41I-052218			MSA-MW-41S-052218			MSA-MW-42I-052118			MSA-MW-42S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-9			240-96003-8			240-96003-5			240-96003-4		
FRACTION: OS	SAMP_DATE	5/22/2018			5/22/2018			5/21/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		380			210			43			0.34	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-23S-052218			MSA-MW-26S-052118			MSA-MW-41S-052218			MSA-MW-42S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-6			240-96003-3			240-96003-8			240-96003-4		
FRACTION: PET	SAMP_DATE	5/22/2018			5/21/2018			5/22/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U		68	J	P	49	U		65	J	P
TPH (C10-C32)		820			280	J	HP	490			1000		

PROJ_NO: 08424	NSAMPLE	MSA-MW-22D-052118			MSA-MW-23D-052218			MSA-MW-23S-052218			MSA-MW-26S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-2			240-96003-7			240-96003-6			240-96003-3		
FRACTION: M	SAMP_DATE	5/21/2018			5/22/2018			5/22/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.3	J	P	0.57	U		0.57	U		0.77	J	P
ARSENIC		9.5			0.75	U		2.1	J	P	12		
BARIUM		67			88			29			120		
BERYLLIUM		0.31	U		0.66	J	CP	0.31	U		0.31	J	CP
CADMIUM		0.32	J	P	42			0.65	J	P	0.21	U	
CHROMIUM		3.5			0.98	U		5.9			7.1		
COBALT		6.5			100			2.8			0.71	J	P
COPPER		9.3			9.6			12			8.2		
IRON		840			47	U		5600			30000		
LEAD		4.2			0.45	U		4.4			2.2		
MANGANESE		53			820			82			570		
MERCURY		0.13	U		0.28			0.13	U		0.13	U	
MOLYBDENUM		2.3	J	P	1.1	U		1.1	U		1.1	J	P
NICKEL		6.8			110			5.9			1.5	U	
SELENIUM		0.89	U		2.5	J	P	0.89	U		1.6	J	P
SILVER		0.11	J	P	0.053	U		0.24	J	P	0.054	J	P
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		10			0.82	U		2.6	J	P	7.1		

PROJ_NO: 08424	NSAMPLE	MSA-MW-41I-052218			MSA-MW-41S-052218			MSA-MW-42I-052118			MSA-MW-42S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-9			240-96003-8			240-96003-5			240-96003-4		
FRACTION: M	SAMP_DATE	5/22/2018			5/22/2018			5/21/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.5	J	P	4.1	J	P	6.5			1.8	J	P
BARIUM		100			26			140			31		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		6.9			0.26	J	P	0.21	U	
CHROMIUM		1.7	J	P	1.6	J	P	3.6			2.3		
COBALT		0.41	J	P	43			2.4			3.6		
COPPER		7.9			2.5			2.7			2.9		
IRON		2000			30000			26000			7600		
LEAD		2.9			0.45	U		0.85	J	P	0.45	J	P
MANGANESE		2000			2800			850			140		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.5	J	P	1.1	U	
NICKEL		1.5	U		26			7.7			3.5		
SELENIUM		1.4	J	P	2.1	J	P	1.2	J	P	0.91	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.074	J	P
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		17			0.82	U		1.5	J	P	3.3	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-22D-052118			MSA-MW-23D-052218			MSA-MW-23S-052218			MSA-MW-26S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-2			240-96003-7			240-96003-6			240-96003-3		
FRACTION: MF	SAMP_DATE	5/21/2018			5/22/2018			5/22/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.3	J	P	0.57	U		0.57	U		0.57	U	
ARSENIC		10			0.75	U		1.5	J	P	11		
BARIUM		60			88			20			120		
BERYLLIUM		0.39	J	CP	0.7	J	CP	0.31	U		0.31	U	
CADMIUM		0.21	J	P	47			0.21	U		0.21	U	
CHROMIUM		2.9			0.98	U		1.7	J	P	6.7		
COBALT		7.7			110			2.5			0.55	J	P
COPPER		6.1			17			1.7	U		1.7	U	
IRON		590			47	U		4700			32000		
LEAD		1.6			0.45	U		0.45	U		0.45	U	
MANGANESE		58			930			80			600		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		2.2	J	P	1.1	U		1.1	U		1.1	U	
NICKEL		6.4			120			4.2			1.5	U	
SELENIUM		0.89	U		2.8	J	P	0.89	U		1	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		10			0.82	U		0.82	U		6.6		

PROJ_NO: 08424	NSAMPLE	MSA-MW-41I-052218			MSA-MW-41S-052218			MSA-MW-42I-052118			MSA-MW-42S-052118		
SDG: 240-96003-1	LAB_ID	240-96003-9			240-96003-8			240-96003-5			240-96003-4		
FRACTION: MF	SAMP_DATE	5/22/2018			5/22/2018			5/21/2018			5/21/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		4.5	J	P	6.6			1.8	J	P
BARIUM		100			19			140			30		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		1.8			0.21	U		0.21	U	
CHROMIUM		0.98	U		1.2	J	P	2.7			2.1		
COBALT		0.23	J	P	43			2.2			3.6		
COPPER		1.7	U		1.7	U		1.7	U		1.7	U	
IRON		1800			32000			26000			7500		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MANGANESE		670			2800			860			140		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.5	J	P	1.1	U	
NICKEL		1.5	U		26			7.3			3.4		
SELENIUM		0.89	U		2.1	J	P	1.1	J	P	0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		1.8	J	P	0.82	U		0.92	J	P	2.6	J	P

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: TB-052118 | Lab Sample ID: 240-96003-1

Matrix: Water | Lab File ID: U1264066.D

Analysis Method: 8260C | Date Collected: 05/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 23:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: TB-052118 | Lab Sample ID: 240-96003-1

Matrix: Water | Lab File ID: U1264066.D

Analysis Method: 8260C | Date Collected: 05/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 23:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	2.6	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: TB-052118 Lab Sample ID: 240-96003-1

Matrix: Water Lab File ID: U1264066.D

Analysis Method: 8260C Date Collected: 05/21/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2018 23:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	113		73-120
1868-53-7	Dibromofluoromethane (Surr)	113		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: TB-052118 | Lab Sample ID: 240-96003-1

Matrix: Water | Lab File ID: U1264066.D

Analysis Method: 8260C | Date Collected: 05/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 23:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: TB-052118 Lab Sample ID: 240-96003-1

Matrix: Water Lab File ID: U1264066.D

Analysis Method: 8260C Date Collected: 05/21/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2018 23:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 | Lab Sample ID: 240-96003-2

Matrix: Water | Lab File ID: U1264067.D

Analysis Method: 8260C | Date Collected: 05/21/2018 09:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U F1	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 | Lab Sample ID: 240-96003-2

Matrix: Water | Lab File ID: U1264067.D

Analysis Method: 8260C | Date Collected: 05/21/2018 09:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 Lab Sample ID: 240-96003-2

Matrix: Water Lab File ID: U1264067.D

Analysis Method: 8260C Date Collected: 05/21/2018 09:58

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 00:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	110		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 | Lab Sample ID: 240-96003-2

Matrix: Water | Lab File ID: U1264067.D

Analysis Method: 8260C | Date Collected: 05/21/2018 09:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 | Lab Sample ID: 240-96003-2

Matrix: Water | Lab File ID: U1264067.D

Analysis Method: 8260C | Date Collected: 05/21/2018 09:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: U1264068.D

Analysis Method: 8260C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: U1264068.D

Analysis Method: 8260C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.51	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.32	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: U1264068.D

Analysis Method: 8260C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: U1264068.D

Analysis Method: 8260C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: U1264068.D

Analysis Method: 8260C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: U1264069.D

Analysis Method: 8260C | Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:46

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	28	U	200	28
71-55-6	1,1,1-Trichloroethane	48	U	200	48
79-34-5	1,1,2,2-Tetrachloroethane	26	U	200	26
76-13-1	1,1,2-Trichlorotrifluoroethane	82	U *	200	82
75-34-3	1,1-Dichloroethane	34	U	200	34
75-35-4	1,1-Dichloroethene	38	U	200	38
563-58-6	1,1-Dichloropropene	28	U	200	28
87-61-6	1,2,3-Trichlorobenzene	110	U	200	110
96-18-4	1,2,3-Trichloropropane	48	U	200	48
526-73-8	1,2,3-Trimethylbenzene	28	U	1000	28
120-82-1	1,2,4-Trichlorobenzene	52	U	200	52
95-63-6	1,2,4-Trimethylbenzene	54	J	200	14
96-12-8	1,2-Dibromo-3-Chloropropane	180	U	400	180
95-50-1	1,2-Dichlorobenzene	30	U	200	30
107-06-2	1,2-Dichloroethane	42	U	200	42
78-87-5	1,2-Dichloropropane	30	U	200	30
541-73-1	1,3-Dichlorobenzene	30	U	200	30
142-28-9	1,3-Dichloropropane	42	U	200	42
106-46-7	1,4-Dichlorobenzene	32	U	200	32
594-20-7	2,2-Dichloropropane	62	U	200	62
78-93-3	2-Butanone (MEK)	230	U	2000	230
110-75-8	2-Chloroethyl vinyl ether	52	U	2000	52
95-49-8	2-Chlorotoluene	30	U	200	30
591-78-6	2-Hexanone	110	U	2000	110
106-43-4	4-Chlorotoluene	18	U	200	18
99-87-6	4-Isopropyltoluene	26	U	200	26
108-10-1	4-Methyl-2-pentanone (MIBK)	84	U	2000	84
67-64-1	Acetone	1100	U	2000	1100
71-43-2	Benzene	26	U	200	26
108-86-1	Bromobenzene	24	U	200	24
75-25-2	Bromoform	150	U	200	150
74-83-9	Bromomethane	84	U	200	84
75-15-0	Carbon disulfide	56	U	200	56
56-23-5	Carbon tetrachloride	52	U	200	52
108-90-7	Chlorobenzene	28	U	200	28
124-48-1	Chlorodibromomethane	78	U	200	78

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: U1264069.D

Analysis Method: 8260C | Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:46

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	170	U	200	170
67-66-3	Chloroform	26	U	200	26
74-87-3	Chloromethane	40	U	200	40
156-59-2	cis-1,2-Dichloroethene	600		200	32
10061-01-5	cis-1,3-Dichloropropene	120	U	200	120
74-95-3	Dibromomethane	18	U	200	18
74-97-5	Bromochloromethane	28	U	200	28
75-71-8	Dichlorodifluoromethane	70	U	200	70
75-27-4	Bromodichloromethane	34	U	200	34
75-65-0	tert-Butyl alcohol	340	U	10000	340
100-41-4	Ethylbenzene	200		200	22
87-68-3	Hexachlorobutadiene	170	U	200	170
108-20-3	Diisopropyl ether	34	U	2000	34
98-82-8	Isopropylbenzene	18	U	200	18
1634-04-4	Methyl tert-butyl ether	14	U	200	14
75-09-2	Methylene Chloride	520	U	1000	520
179601-23-1	m-Xylene & p-Xylene	3900		400	16
91-20-3	Naphthalene	64	U	200	64
104-51-8	n-Butylbenzene	28	U	200	28
103-65-1	N-Propylbenzene	30	U	200	30
95-47-6	o-Xylene	320		200	18
135-98-8	sec-Butylbenzene	26	U	200	26
100-42-5	Styrene	20	U	200	20
994-05-8	Tert-amyl methyl ether	22	U	1000	22
637-92-3	Ethyl tert-butyl ether	30	U	1000	30
127-18-4	Tetrachloroethene	30	U	200	30
108-88-3	Toluene	170	J	200	28
156-60-5	trans-1,2-Dichloroethene	38	U	200	38
10061-02-6	trans-1,3-Dichloropropene	130	U	200	130
79-01-6	Trichloroethene	20	U	200	20
75-69-4	Trichlorofluoromethane	90	U	200	90
108-05-4	Vinyl acetate	38	U	400	38
75-01-4	Vinyl chloride	270		200	40
1330-20-7	Xylenes, Total	4200		400	30
98-06-6	tert-Butylbenzene	28	U	200	28
106-93-4	1,2-Dibromoethane	24	U	200	24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 Lab Sample ID: 240-96003-4

Matrix: Water Lab File ID: U1264069.D

Analysis Method: 8260C Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 00:46

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	121		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: U1264069.D

Analysis Method: 8260C | Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:46

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: U1264069.D

Analysis Method: 8260C | Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 00:46

Soil Aliquot Vol: | Dilution Factor: 200

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		200	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 | Lab Sample ID: 240-96003-5

Matrix: Water | Lab File ID: U1264070.D

Analysis Method: 8260C | Date Collected: 05/21/2018 16:11

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:10

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	40	5.6
71-55-6	1,1,1-Trichloroethane	9.6	U	40	9.6
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	40	5.2
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U *	40	16
75-34-3	1,1-Dichloroethane	6.8	U	40	6.8
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.6	U	40	5.6
87-61-6	1,2,3-Trichlorobenzene	22	U	40	22
96-18-4	1,2,3-Trichloropropane	9.6	U	40	9.6
526-73-8	1,2,3-Trimethylbenzene	5.6	U	200	5.6
120-82-1	1,2,4-Trichlorobenzene	10	U	40	10
95-63-6	1,2,4-Trimethylbenzene	2.8	U	40	2.8
96-12-8	1,2-Dibromo-3-Chloropropane	36	U	80	36
95-50-1	1,2-Dichlorobenzene	6.0	U	40	6.0
107-06-2	1,2-Dichloroethane	8.4	U	40	8.4
78-87-5	1,2-Dichloropropane	6.0	U	40	6.0
541-73-1	1,3-Dichlorobenzene	6.0	U	40	6.0
142-28-9	1,3-Dichloropropane	8.4	U	40	8.4
106-46-7	1,4-Dichlorobenzene	6.4	U	40	6.4
594-20-7	2,2-Dichloropropane	12	U	40	12
78-93-3	2-Butanone (MEK)	46	U	400	46
110-75-8	2-Chloroethyl vinyl ether	10	U	400	10
95-49-8	2-Chlorotoluene	6.0	U	40	6.0
591-78-6	2-Hexanone	22	U	400	22
106-43-4	4-Chlorotoluene	3.6	U	40	3.6
99-87-6	4-Isopropyltoluene	5.2	U	40	5.2
108-10-1	4-Methyl-2-pentanone (MIBK)	17	U	400	17
67-64-1	Acetone	220	U	400	220
71-43-2	Benzene	7.1	J	40	5.2
108-86-1	Bromobenzene	4.8	U	40	4.8
75-25-2	Bromoform	30	U	40	30
74-83-9	Bromomethane	17	U	40	17
75-15-0	Carbon disulfide	11	U	40	11
56-23-5	Carbon tetrachloride	10	U	40	10
108-90-7	Chlorobenzene	5.6	U	40	5.6
124-48-1	Chlorodibromomethane	16	U	40	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 | Lab Sample ID: 240-96003-5

Matrix: Water | Lab File ID: U1264070.D

Analysis Method: 8260C | Date Collected: 05/21/2018 16:11

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:10

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	33	U	40	33
67-66-3	Chloroform	5.2	U	40	5.2
74-87-3	Chloromethane	8.0	U	40	8.0
156-59-2	cis-1,2-Dichloroethene	820		40	6.4
10061-01-5	cis-1,3-Dichloropropene	24	U	40	24
74-95-3	Dibromomethane	3.6	U	40	3.6
74-97-5	Bromochloromethane	5.6	U	40	5.6
75-71-8	Dichlorodifluoromethane	14	U	40	14
75-27-4	Bromodichloromethane	6.8	U	40	6.8
75-65-0	tert-Butyl alcohol	68	U	2000	68
100-41-4	Ethylbenzene	4.4	U	40	4.4
87-68-3	Hexachlorobutadiene	33	U	40	33
108-20-3	Diisopropyl ether	6.8	U	400	6.8
98-82-8	Isopropylbenzene	3.6	U	40	3.6
1634-04-4	Methyl tert-butyl ether	2.8	U	40	2.8
75-09-2	Methylene Chloride	100	U	200	100
179601-23-1	m-Xylene & p-Xylene	99		80	3.2
91-20-3	Naphthalene	13	U	40	13
104-51-8	n-Butylbenzene	5.6	U	40	5.6
103-65-1	N-Propylbenzene	6.0	U	40	6.0
95-47-6	o-Xylene	25	J	40	3.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.0	U	40	4.0
994-05-8	Tert-amyl methyl ether	4.4	U	200	4.4
637-92-3	Ethyl tert-butyl ether	6.0	U	200	6.0
127-18-4	Tetrachloroethene	6.0	U	40	6.0
108-88-3	Toluene	10	J	40	5.6
156-60-5	trans-1,2-Dichloroethene	7.6	U	40	7.6
10061-02-6	trans-1,3-Dichloropropene	27	U	40	27
79-01-6	Trichloroethene	7.9	J	40	4.0
75-69-4	Trichlorofluoromethane	18	U	40	18
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	340		40	8.0
1330-20-7	Xylenes, Total	120		80	6.0
98-06-6	tert-Butylbenzene	5.6	U	40	5.6
106-93-4	1,2-Dibromoethane	4.8	U	40	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 Lab Sample ID: 240-96003-5

Matrix: Water Lab File ID: U1264070.D

Analysis Method: 8260C Date Collected: 05/21/2018 16:11

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 01:10

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	113		73-120
1868-53-7	Dibromofluoromethane (Surr)	113		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 | Lab Sample ID: 240-96003-5

Matrix: Water | Lab File ID: U1264070.D

Analysis Method: 8260C | Date Collected: 05/21/2018 16:11

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:10

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 | Lab Sample ID: 240-96003-5

Matrix: Water | Lab File ID: U1264070.D

Analysis Method: 8260C | Date Collected: 05/21/2018 16:11

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:10

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		40	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: U1264071.D

Analysis Method: 8260C | Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	J	1.0	0.15
107-06-2	1,2-Dichloroethane	0.35	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	2.5		1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.42	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: U1264071.D

Analysis Method: 8260C | Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.7		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.31	J	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	5.4		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.29	J	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 Lab Sample ID: 240-96003-6

Matrix: Water Lab File ID: U1264071.D

Analysis Method: 8260C Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 01:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	85		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: U1264071.D

Analysis Method: 8260C | Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: U1264071.D

Analysis Method: 8260C | Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 | Lab Sample ID: 240-96003-7

Matrix: Water | Lab File ID: U1264072.D

Analysis Method: 8260C | Date Collected: 05/22/2018 10:31

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	3.3		1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 | Lab Sample ID: 240-96003-7

Matrix: Water | Lab File ID: U1264072.D

Analysis Method: 8260C | Date Collected: 05/22/2018 10:31

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	1.6		1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	1.3		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 Lab Sample ID: 240-96003-7

Matrix: Water Lab File ID: U1264072.D

Analysis Method: 8260C Date Collected: 05/22/2018 10:31

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 01:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	111		69-124
460-00-4	4-Bromofluorobenzene (Surr)	100		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 | Lab Sample ID: 240-96003-7

Matrix: Water | Lab File ID: U1264072.D

Analysis Method: 8260C | Date Collected: 05/22/2018 10:31

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 | Lab Sample ID: 240-96003-7

Matrix: Water | Lab File ID: U1264072.D

Analysis Method: 8260C | Date Collected: 05/22/2018 10:31

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 01:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: U1264073.D

Analysis Method: 8260C | Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:20

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	14	U	100	14
71-55-6	1,1,1-Trichloroethane	24	U	100	24
79-34-5	1,1,2,2-Tetrachloroethane	13	U	100	13
76-13-1	1,1,2-Trichlorotrifluoroethane	41	U *	100	41
75-34-3	1,1-Dichloroethane	17	U	100	17
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	14	U	100	14
87-61-6	1,2,3-Trichlorobenzene	54	U	100	54
96-18-4	1,2,3-Trichloropropane	24	U	100	24
526-73-8	1,2,3-Trimethylbenzene	14	U	500	14
120-82-1	1,2,4-Trichlorobenzene	26	U	100	26
95-63-6	1,2,4-Trimethylbenzene	7.0	U	100	7.0
96-12-8	1,2-Dibromo-3-Chloropropane	91	U	200	91
95-50-1	1,2-Dichlorobenzene	15	U	100	15
107-06-2	1,2-Dichloroethane	50	J	100	21
78-87-5	1,2-Dichloropropane	15	U	100	15
541-73-1	1,3-Dichlorobenzene	15	U	100	15
142-28-9	1,3-Dichloropropane	21	U	100	21
106-46-7	1,4-Dichlorobenzene	16	U	100	16
594-20-7	2,2-Dichloropropane	31	U	100	31
78-93-3	2-Butanone (MEK)	120	U	1000	120
110-75-8	2-Chloroethyl vinyl ether	26	U	1000	26
95-49-8	2-Chlorotoluene	15	U	100	15
591-78-6	2-Hexanone	54	U	1000	54
106-43-4	4-Chlorotoluene	9.0	U	100	9.0
99-87-6	4-Isopropyltoluene	13	U	100	13
108-10-1	4-Methyl-2-pentanone (MIBK)	42	U	1000	42
67-64-1	Acetone	540	U	1000	540
71-43-2	Benzene	21	J	100	13
108-86-1	Bromobenzene	12	U	100	12
75-25-2	Bromoform	76	U	100	76
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	28	U	100	28
56-23-5	Carbon tetrachloride	26	U	100	26
108-90-7	Chlorobenzene	14	U	100	14
124-48-1	Chlorodibromomethane	39	U	100	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: U1264073.D

Analysis Method: 8260C | Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:20

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	83	U	100	83
67-66-3	Chloroform	13	U	100	13
74-87-3	Chloromethane	20	U	100	20
156-59-2	cis-1,2-Dichloroethene	1100		100	16
10061-01-5	cis-1,3-Dichloropropene	61	U	100	61
74-95-3	Dibromomethane	9.0	U	100	9.0
74-97-5	Bromochloromethane	14	U	100	14
75-71-8	Dichlorodifluoromethane	35	U	100	35
75-27-4	Bromodichloromethane	17	U	100	17
75-65-0	tert-Butyl alcohol	200	J	5000	170
100-41-4	Ethylbenzene	11	U	100	11
87-68-3	Hexachlorobutadiene	83	U	100	83
108-20-3	Diisopropyl ether	17	U	1000	17
98-82-8	Isopropylbenzene	9.0	U	100	9.0
1634-04-4	Methyl tert-butyl ether	7.0	U	100	7.0
75-09-2	Methylene Chloride	260	U	500	260
179601-23-1	m-Xylene & p-Xylene	8.0	U	200	8.0
91-20-3	Naphthalene	32	U	100	32
104-51-8	n-Butylbenzene	14	U	100	14
103-65-1	N-Propylbenzene	15	U	100	15
95-47-6	o-Xylene	9.0	U	100	9.0
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	10	U	100	10
994-05-8	Tert-amyl methyl ether	11	U	500	11
637-92-3	Ethyl tert-butyl ether	15	U	500	15
127-18-4	Tetrachloroethene	15	U	100	15
108-88-3	Toluene	14	U	100	14
156-60-5	trans-1,2-Dichloroethene	19	U	100	19
10061-02-6	trans-1,3-Dichloropropene	67	U	100	67
79-01-6	Trichloroethene	2400		100	10
75-69-4	Trichlorofluoromethane	45	U	100	45
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	770		100	20
1330-20-7	Xylenes, Total	15	U	200	15
98-06-6	tert-Butylbenzene	14	U	100	14
106-93-4	1,2-Dibromoethane	12	U	100	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 Lab Sample ID: 240-96003-8

Matrix: Water Lab File ID: U1264073.D

Analysis Method: 8260C Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 02:20

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	84		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: U1264073.D

Analysis Method: 8260C | Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:20

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: U1264073.D

Analysis Method: 8260C | Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:20

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		100	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 | Lab Sample ID: 240-96003-9

Matrix: Water | Lab File ID: U1264074.D

Analysis Method: 8260C | Date Collected: 05/22/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:43

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	40	5.6
71-55-6	1,1,1-Trichloroethane	9.6	U	40	9.6
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	40	5.2
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U *	40	16
75-34-3	1,1-Dichloroethane	6.8	U	40	6.8
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.6	U	40	5.6
87-61-6	1,2,3-Trichlorobenzene	22	U	40	22
96-18-4	1,2,3-Trichloropropane	9.6	U	40	9.6
526-73-8	1,2,3-Trimethylbenzene	5.6	U	200	5.6
120-82-1	1,2,4-Trichlorobenzene	15	J	40	10
95-63-6	1,2,4-Trimethylbenzene	2.8	U	40	2.8
96-12-8	1,2-Dibromo-3-Chloropropane	36	U	80	36
95-50-1	1,2-Dichlorobenzene	6.0	U	40	6.0
107-06-2	1,2-Dichloroethane	110		40	8.4
78-87-5	1,2-Dichloropropane	6.0	U	40	6.0
541-73-1	1,3-Dichlorobenzene	6.0	U	40	6.0
142-28-9	1,3-Dichloropropane	8.4	U	40	8.4
106-46-7	1,4-Dichlorobenzene	7.6	J	40	6.4
594-20-7	2,2-Dichloropropane	12	U	40	12
78-93-3	2-Butanone (MEK)	46	U	400	46
110-75-8	2-Chloroethyl vinyl ether	10	U	400	10
95-49-8	2-Chlorotoluene	6.0	U	40	6.0
591-78-6	2-Hexanone	22	U	400	22
106-43-4	4-Chlorotoluene	3.6	U	40	3.6
99-87-6	4-Isopropyltoluene	5.2	U	40	5.2
108-10-1	4-Methyl-2-pentanone (MIBK)	17	U	400	17
67-64-1	Acetone	220	U	400	220
71-43-2	Benzene	28	J	40	5.2
108-86-1	Bromobenzene	4.8	U	40	4.8
75-25-2	Bromoform	30	U	40	30
74-83-9	Bromomethane	17	U	40	17
75-15-0	Carbon disulfide	11	U	40	11
56-23-5	Carbon tetrachloride	10	U	40	10
108-90-7	Chlorobenzene	310		40	5.6
124-48-1	Chlorodibromomethane	16	U	40	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 | Lab Sample ID: 240-96003-9

Matrix: Water | Lab File ID: U1264074.D

Analysis Method: 8260C | Date Collected: 05/22/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:43

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	33	U	40	33
67-66-3	Chloroform	5.2	U	40	5.2
74-87-3	Chloromethane	8.0	U	40	8.0
156-59-2	cis-1,2-Dichloroethene	950		40	6.4
10061-01-5	cis-1,3-Dichloropropene	24	U	40	24
74-95-3	Dibromomethane	3.6	U	40	3.6
74-97-5	Bromochloromethane	5.6	U	40	5.6
75-71-8	Dichlorodifluoromethane	14	U	40	14
75-27-4	Bromodichloromethane	6.8	U	40	6.8
75-65-0	tert-Butyl alcohol	180	J	2000	68
100-41-4	Ethylbenzene	4.4	U	40	4.4
87-68-3	Hexachlorobutadiene	33	U	40	33
108-20-3	Diisopropyl ether	6.8	U	400	6.8
98-82-8	Isopropylbenzene	3.6	U	40	3.6
1634-04-4	Methyl tert-butyl ether	2.8	U	40	2.8
75-09-2	Methylene Chloride	100	U	200	100
179601-23-1	m-Xylene & p-Xylene	3.2	U	80	3.2
91-20-3	Naphthalene	13	U	40	13
104-51-8	n-Butylbenzene	5.6	U	40	5.6
103-65-1	N-Propylbenzene	6.0	U	40	6.0
95-47-6	o-Xylene	3.6	U	40	3.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.0	U	40	4.0
994-05-8	Tert-amyl methyl ether	4.4	U	200	4.4
637-92-3	Ethyl tert-butyl ether	6.0	U	200	6.0
127-18-4	Tetrachloroethene	6.0	U	40	6.0
108-88-3	Toluene	5.6	U	40	5.6
156-60-5	trans-1,2-Dichloroethene	7.9	J	40	7.6
10061-02-6	trans-1,3-Dichloropropene	27	U	40	27
79-01-6	Trichloroethene	280		40	4.0
75-69-4	Trichlorofluoromethane	18	U	40	18
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	1100		40	8.0
1330-20-7	Xylenes, Total	6.0	U	80	6.0
98-06-6	tert-Butylbenzene	5.6	U	40	5.6
106-93-4	1,2-Dibromoethane	4.8	U	40	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 Lab Sample ID: 240-96003-9

Matrix: Water Lab File ID: U1264074.D

Analysis Method: 8260C Date Collected: 05/22/2018 14:50

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 02:43

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	107		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 | Lab Sample ID: 240-96003-9

Matrix: Water | Lab File ID: U1264074.D

Analysis Method: 8260C | Date Collected: 05/22/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:43

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 | Lab Sample ID: 240-96003-9

Matrix: Water | Lab File ID: U1264074.D

Analysis Method: 8260C | Date Collected: 05/22/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 02:43

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		40	U	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-22D-052118 | Lab Sample ID: 240-96003-2

Matrix: Water | Lab File ID: 80528010.D

Analysis Method: 8270D | Date Collected: 05/21/2018 09:58

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 270(mL) | Date Analyzed: 05/28/2018 11:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	41		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	51		17-120
321-60-8	2-Fluorobiphenyl (Surr)	64		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	85		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: 80528013.D

Analysis Method: 8270D | Date Collected: 05/21/2018 11:49

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 280(mL) | Date Analyzed: 05/28/2018 12:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	37		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	54		35-120
367-12-4	2-Fluorophenol (Surr)	41		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	81		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: 80528017.D

Analysis Method: 8270D | Date Collected: 05/21/2018 14:33

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 280(mL) | Date Analyzed: 05/28/2018 14:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		28-128
4165-62-2	Phenol-d5 (Surr)	37		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		35-120
367-12-4	2-Fluorophenol (Surr)	72		17-120
321-60-8	2-Fluorobiphenyl (Surr)	68		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	96		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42I-052118 | Lab Sample ID: 240-96003-5

Matrix: Water | Lab File ID: 80528018.D

Analysis Method: 8270D | Date Collected: 05/21/2018 16:11

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 260(mL) | Date Analyzed: 05/28/2018 14:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	43		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		28-128
4165-62-2	Phenol-d5 (Surr)	56		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	61		17-120
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	88		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: 80528019.D

Analysis Method: 8270D | Date Collected: 05/22/2018 08:15

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 270(mL) | Date Analyzed: 05/28/2018 14:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.0		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	82		35-120
367-12-4	2-Fluorophenol (Surr)	57		17-120
321-60-8	2-Fluorobiphenyl (Surr)	76		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	111		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23D-052218 | Lab Sample ID: 240-96003-7

Matrix: Water | Lab File ID: 80528020.D

Analysis Method: 8270D | Date Collected: 05/22/2018 10:31

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 260(mL) | Date Analyzed: 05/28/2018 15:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		28-128
4165-62-2	Phenol-d5 (Surr)	49		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	66		35-120
367-12-4	2-Fluorophenol (Surr)	57		17-120
321-60-8	2-Fluorobiphenyl (Surr)	72		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	91		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: 80530008.D

Analysis Method: 8270D | Date Collected: 05/22/2018 12:26

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 09:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	210		9.3	3.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	52		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	59		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41I-052218 | Lab Sample ID: 240-96003-9

Matrix: Water | Lab File ID: 80530009.D

Analysis Method: 8270D | Date Collected: 05/22/2018 14:50

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 260(mL) | Date Analyzed: 05/30/2018 09:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 20

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	380		19	7.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	75		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	76		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	70		33-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: Y0052518.D

Analysis Method: 8015C | Date Collected: 05/21/2018 11:49

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 23:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328572 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	68	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	95		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: Y0052519.D

Analysis Method: 8015C | Date Collected: 05/21/2018 14:33

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 23:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328572 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	65	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	97		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: Y0052520.D

Analysis Method: 8015C | Date Collected: 05/22/2018 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 00:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328572 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	95		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: Y0052521.D

Analysis Method: 8015C | Date Collected: 05/22/2018 12:26

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2018 01:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328572 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	94		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 | Lab Sample ID: 240-96003-3

Matrix: Water | Lab File ID: R052510.D

Analysis Method: 8015C | Date Collected: 05/21/2018 11:49

Extraction Method: 3520C | Date Extracted: 05/24/2018 08:06

Sample wt/vol: 250(mL) | Date Analyzed: 05/25/2018 20:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	35	X	37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-26S-052118 RE | Lab Sample ID: 240-96003-3 RE

Matrix: Water | Lab File ID: R060110.D

Analysis Method: 8015C | Date Collected: 05/21/2018 11:49

Extraction Method: 3520C | Date Extracted: 05/31/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 06/01/2018 18:37

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329629 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	*Total Petroleum Hydrocarbons (C10-C32)*	*280*	*J H*	*460*	*210*

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	79		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-42S-052118 | Lab Sample ID: 240-96003-4

Matrix: Water | Lab File ID: R052511.D

Analysis Method: 8015C | Date Collected: 05/21/2018 14:33

Extraction Method: 3520C | Date Extracted: 05/24/2018 08:06

Sample wt/vol: 280(mL) | Date Analyzed: 05/25/2018 21:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1000		450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	71		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-23S-052218 | Lab Sample ID: 240-96003-6

Matrix: Water | Lab File ID: R052512.D

Analysis Method: 8015C | Date Collected: 05/22/2018 08:15

Extraction Method: 3520C | Date Extracted: 05/24/2018 08:06

Sample wt/vol: 280(mL) | Date Analyzed: 05/25/2018 21:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	820		450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	72		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: MSA-MW-41S-052218 | Lab Sample ID: 240-96003-8

Matrix: Water | Lab File ID: R052513.D

Analysis Method: 8015C | Date Collected: 05/22/2018 12:26

Extraction Method: 3520C | Date Extracted: 05/24/2018 08:06

Sample wt/vol: 260(mL) | Date Analyzed: 05/25/2018 22:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	490		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-22D-052118 Lab Sample ID: 240-96003-2

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 09:58

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-22D-052118 Lab Sample ID: 240-96003-2

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 09:58

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.3	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	9.5	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	67	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.32	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	6.5	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	9.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	840	100	47	ug/L			1	6020A
7439-96-5	Manganese	53	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	6.8	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	4.2	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	10	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.11	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-22D-052118 Lab Sample ID: 240-96003-2

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 09:58

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	1.3	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	10	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	60	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.39	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	7.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	6.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	590	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	58	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	2.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	6.4	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.6	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	10	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-26S-052118 Lab Sample ID: 240-96003-3

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 11:49

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-26S-052118 Lab Sample ID: 240-96003-3

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 11:49

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.77	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	12	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	120	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.71	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	7.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	8.2	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Manganese	570	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	2.2	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.6	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	7.1	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.054	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-26S-052118 Lab Sample ID: 240-96003-3

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 11:49

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	11	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	120	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.55	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	6.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	32000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	600	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	6.6	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-42S-052118 Lab Sample ID: 240-96003-4

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 14:33

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-42S-052118 Lab Sample ID: 240-96003-4

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 14:33

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	31	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	3.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.3	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	7600	100	47	ug/L			1	6020A
7439-96-5	Manganese	140	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	3.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.91	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	3.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.074	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-42S-052118 Lab Sample ID: 240-96003-4

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 14:33

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	30	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	3.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	7500	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	140	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	3.4	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-42I-052118 Lab Sample ID: 240-96003-5

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 16:11

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-42I-052118 Lab Sample ID: 240-96003-5

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 16:11

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	6.5	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	140	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.26	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	2.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	26000	100	47	ug/L			1	6020A
7439-96-5	Manganese	850	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.5	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	7.7	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.85	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.2	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-42I-052118 Lab Sample ID: 240-96003-5

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/21/2018 16:11

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	6.6	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	140	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	2.2	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	26000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	860	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.5	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	7.3	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.92	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-23S-052218 Lab Sample ID: 240-96003-6

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 08:15

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-23S-052218 Lab Sample ID: 240-96003-6

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 08:15

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	29	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.65	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	2.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	12	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	5600	100	47	ug/L			1	6020A
7439-96-5	Manganese	82	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	5.9	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	4.4	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.24	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-23S-052218 Lab Sample ID: 240-96003-6

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 08:15

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	20	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	2.5	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.7	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	4700	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	80	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	4.2	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-23D-052218 Lab Sample ID: 240-96003-7

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 10:31

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.28	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-23D-052218 Lab Sample ID: 240-96003-7

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 10:31

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	88	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.66	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Cadmium	42	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	9.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	820	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	2.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-23D-052218 Lab Sample ID: 240-96003-7

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 10:31

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	88	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.70	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Dissolved Cadmium	47	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	110	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	17	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	930	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	120	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	2.8	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-41S-052218 Lab Sample ID: 240-96003-8

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 12:26

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-41S-052218 Lab Sample ID: 240-96003-8

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 12:26

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	6.9	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	43	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.6	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	2.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2800	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	26	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	2.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-41S-052218 Lab Sample ID: 240-96003-8

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 12:26

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	4.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	1.8	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	43	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.2	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	32000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2800	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	26	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	2.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-41I-052218 Lab Sample ID: 240-96003-9

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 14:50

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-41I-052218 Lab Sample ID: 240-96003-9

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 14:50

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	100	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.41	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	1.7	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	7.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	2000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2000	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	2.9	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.4	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	17	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-41I-052218 Lab Sample ID: 240-96003-9

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG ID.:

Matrix: Water Date Sampled: 05/22/2018 14:50

Reporting Basis: WET Date Received: 05/23/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	100	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.23	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	1800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	670	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

Appendix C

Support Documentation

1.0/C1.1 2.2/C2.3 1.8/C1.9

6' 5' 5'

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

180325

TestAmerica

Client Information	Sampler: Walt Pacon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com	BALTIMORE	Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone:	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011891~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, ...decahydrate, ...e, ...pecify)

240-96003 Chain of Custody

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gro (8015C)	Dro (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Total Numb	Special Instructions/Note:
			Preservation Code:				A							
TB-052118	5/21/18	–	G	Water			2	–	–	–	–	–		
MSA-MW-22D-052118	↓	0958	↓	↓			9	–	–	6	3	3		*MS/MSD*
MSA-MW-26S-052118	↓	1149	↓	↓			3	2	2	2	1	1		
MSA-MW-42S-052118	↓	1433	↓	↓			3	2	2	2	1	1		
MSA-MW-42I-052118	↓	1611	↓	↓			3	–	–	2	1	1		
MSA-MW-23S-052218	5/22/18	0815	↓	↓			3	2	2	2	1	1		
MSA-MW-23D-052218	↓	1031	↓	↓			3	–	–	2	1	1		
MSA-MW-41S-052218	↓	1226	↓	↓			3	2	2	2	1	1		
MSA-MW-41I-052218	↓	1450	↓	↓			3	–	–	2	1	1		

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pa[illegible]	5/22/18 / 1541	14 INC	[signature]	5/22/18 1541	TA
[signature]	5/22/18 1632		SOP	5/23/18 930	TAL

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-96003-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/23/2018 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.1º C, 1.9º C and 2.3º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-052118 (240-96003-1), MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 05/31/2018 and 06/01/2018.

Samples MSA-MW-42S-052118 (240-96003-4)[200X], MSA-MW-42I-052118 (240-96003-5)[40X], MSA-MW-41S-052218 (240-96003-8) [100X] and MSA-MW-41I-052218 (240-96003-9)[40X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The laboratory control sample (LCS) for analytical batch 240-329448 recovered outside control limits for 1,1,2-Trichloro-1,2,2-trifluoroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 240-329448 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TB-052118 (240-96003-1), MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8), MSA-MW-41I-052218 (240-96003-9), (CCV 240-329448/5) and (CCVIS 240-329448/3).

The following samples were received preserved with hydrochloric acid: TB-052118 (240-96003-1), MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4),

MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/24/2018 and analyzed on 05/28/2018 and 05/30/2018.

Samples MSA-MW-41S-052218 (240-96003-8)[10X] and MSA-MW-41I-052218 (240-96003-9)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-23S-052218 (240-96003-6) and MSA-MW-41S-052218 (240-96003-8) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 05/25/2018 and 05/26/2018.

Surrogate recovery for the following sample was outside control limits: MSA-MW-26S-052118 (240-96003-3). Re-extraction and re-analysis was performed outside of holding time with acceptable results. Both sets of data are reported.

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

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-23S-052218 (240-96003-6) and MSA-MW-41S-052218 (240-96003-8) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 05/24/2018 and 05/31/2018 and analyzed on 05/25/2018 and 06/01/2018.

o-Terphenyl (Surr) failed the surrogate recovery criteria low for MSA-MW-26S-052118 (240-96003-3).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-328316 and 240-329310.

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

DISSOLVED METALS (ICPMS)

Samples MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 05/24/2018 and analyzed on 05/26/2018 and 05/27/2018.

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

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/24/2018 and analyzed on 05/26/2018 and 05/27/2018.

The continuing calibration verification (CCV) associated with batch 240-328800 recovered above the upper control limit for Beryllium. The samples associated with this CCV were below the requested reporting limit for the affected analyte; therefore, the data have been reported. The following samples are impacted: MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9).

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

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/24/2018 and analyzed on 05/29/2018.

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

TOTAL MERCURY

Samples MSA-MW-22D-052118 (240-96003-2), MSA-MW-26S-052118 (240-96003-3), MSA-MW-42S-052118 (240-96003-4), MSA-MW-42I-052118 (240-96003-5), MSA-MW-23S-052218 (240-96003-6), MSA-MW-23D-052218 (240-96003-7), MSA-MW-41S-052218 (240-96003-8) and MSA-MW-41I-052218 (240-96003-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/24/2018 and analyzed on 05/29/2018.

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
U	Indicates the analyte was analyzed for but not detected.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-96003-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-96003-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-96003-1	TB-052118	Water	05/21/18 00:00	05/23/18 09:30
240-96003-2	MSA-MW-22D-052118	Water	05/21/18 09:58	05/23/18 09:30
240-96003-3	MSA-MW-26S-052118	Water	05/21/18 11:49	05/23/18 09:30
240-96003-4	MSA-MW-42S-052118	Water	05/21/18 14:33	05/23/18 09:30
240-96003-5	MSA-MW-42I-052118	Water	05/21/18 16:11	05/23/18 09:30
240-96003-6	MSA-MW-23S-052218	Water	05/22/18 08:15	05/23/18 09:30
240-96003-7	MSA-MW-23D-052218	Water	05/22/18 10:31	05/23/18 09:30
240-96003-8	MSA-MW-41S-052218	Water	05/22/18 12:26	05/23/18 09:30
240-96003-9	MSA-MW-41I-052218	Water	05/22/18 14:50	05/23/18 09:30

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-052118	240-96003-1	113	105	113	102
MSA-MW-22D-052118	240-96003-2	110	103	109	93
MSA-MW-26S-052118	240-96003-3	97	90	96	89
MSA-MW-42S-052118	240-96003-4	121	113	110	101
MSA-MW-42I-052118	240-96003-5	113	106	113	103
MSA-MW-23S-052218	240-96003-6	100	92	95	85
MSA-MW-23D-052218	240-96003-7	111	101	108	100
MSA-MW-41S-052218	240-96003-8	96	89	94	84
MSA-MW-41I-052218	240-96003-9	107	101	104	95
	MB 240-329448/8	113	107	111	98
	LCS 240-329448/4	116	105	115	108
MSA-MW-22D-052118 MS	240-96003-2 MS	115	107	115	107
MSA-MW-22D-052118 MSD	240-96003-2 MSD	113	100	110	103

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264050.D

Lab ID: LCS 240-329448/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	22.9	114	73-136	
1,1,1-Trichloroethane	20.0	22.6	113	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.7	103	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	29.5	147	65-144	*
1,1-Dichloroethane	20.0	23.5	118	74-120	
1,1-Dichloroethene	20.0	23.8	119	65-127	
1,1-Dichloropropene	20.0	22.4	112	80-122	
1,2,3-Trichlorobenzene	20.0	22.0	110	31-144	
1,2,3-Trichloropropane	20.0	20.9	105	53-134	
1,2,4-Trichlorobenzene	20.0	22.5	112	34-141	
1,2,4-Trimethylbenzene	20.0	22.2	111	80-120	
1,2-Dibromo-3-Chloropropane	20.0	23.0	115	50-130	
1,2-Dichlorobenzene	20.0	22.1	110	80-120	
1,2-Dichloroethane	20.0	20.1	101	68-133	
1,2-Dichloropropane	20.0	21.6	108	78-127	
1,3-Dichlorobenzene	20.0	21.0	105	80-120	
1,3-Dichloropropane	20.0	20.7	104	71-124	
1,4-Dichlorobenzene	20.0	21.7	109	80-120	
2,2-Dichloropropane	20.0	22.2	111	32-178	
2-Butanone (MEK)	40.0	45.3	113	43-149	
2-Chloroethyl vinyl ether	20.0	21.2	106	58-123	
2-Chlorotoluene	20.0	22.8	114	80-120	
2-Hexanone	40.0	40.1	100	28-169	
4-Chlorotoluene	20.0	21.9	109	79-120	
4-Isopropyltoluene	20.0	23.0	115	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	40.9	102	53-144	
Acetone	40.0	45.3	113	35-131	
Benzene	20.0	21.2	106	79-120	
Bromobenzene	20.0	21.0	105	73-120	
Bromoform	20.0	22.6	113	55-145	
Bromomethane	20.0	20.7	103	17-158	
Carbon disulfide	20.0	23.4	117	49-141	
Carbon tetrachloride	20.0	24.3	121	55-171	
Chlorobenzene	20.0	21.7	109	80-120	
Chlorodibromomethane	20.0	22.6	113	64-129	
Chloroethane	20.0	20.9	105	10-149	
Chloroform	20.0	22.8	114	80-120	
Chloromethane	20.0	20.8	104	59-124	
cis-1,2-Dichloroethene	20.0	22.8	114	77-120	
cis-1,3-Dichloropropene	20.0	22.1	111	75-120	
Dibromomethane	20.0	20.4	102	80-120	
Bromochloromethane	20.0	21.0	105	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264050.D

Lab ID: LCS 240-329448/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	24.5	122	42-141	
Bromodichloromethane	20.0	22.0	110	79-125	
tert-Butyl alcohol	200	259	130	52-136	
Ethylbenzene	20.0	20.8	104	80-120	
Hexachlorobutadiene	20.0	22.5	113	36-146	
Isopropylbenzene	20.0	22.3	112	80-128	
Methyl tert-butyl ether	20.0	22.1	111	73-120	
Methylene Chloride	20.0	22.6	113	64-140	
m-Xylene & p-Xylene	20.0	22.0	110	80-120	
Naphthalene	20.0	22.5	112	31-127	
n-Butylbenzene	20.0	22.8	114	60-137	
N-Propylbenzene	20.0	22.3	111	76-120	
o-Xylene	20.0	22.0	110	80-120	
sec-Butylbenzene	20.0	22.3	112	76-124	
Styrene	20.0	22.2	111	80-121	
Tetrachloroethene	20.0	21.1	106	80-122	
Toluene	20.0	22.1	110	78-120	
trans-1,2-Dichloroethene	20.0	23.0	115	74-124	
trans-1,3-Dichloropropene	20.0	21.0	105	67-120	
Trichloroethene	20.0	21.3	107	76-124	
Trichlorofluoromethane	20.0	26.7	133	27-176	
Vinyl acetate	20.0	26.3	131	42-141	
Vinyl chloride	20.0	22.1	111	65-124	
Xylenes, Total	40.0	44.0	110	80-120	
tert-Butylbenzene	20.0	22.4	112	79-120	
1,2-Dibromoethane	20.0	21.1	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264076.D

Lab ID: 240-96003-2 MS Client ID: MSA-MW-22D-052118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	0.14 U	22.9	114	67-142	
1,1,1-Trichloroethane	20.0	0.24 U	23.5	117	57-156	
1,1,2,2-Tetrachloroethane	20.0	0.13 U	20.5	103	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	0.41 U	25.9	130	58-137	
1,1-Dichloroethane	20.0	0.17 U	24.4	122	69-122	
1,1-Dichloroethene	20.0	0.19 U	23.3	116	62-127	
1,1-Dichloropropene	20.0	0.14 U	22.5	112	55-136	
1,2,3-Trichlorobenzene	20.0	0.54 U	21.7	109	40-139	
1,2,3-Trichloropropane	20.0	0.24 U	20.7	103	41-152	
1,2,4-Trichlorobenzene	20.0	0.26 U	21.5	108	26-138	
1,2,4-Trimethylbenzene	20.0	0.070 U	22.1	111	64-120	
1,2-Dibromo-3-Chloropropane	20.0	0.91 U	20.7	103	48-130	
1,2-Dichlorobenzene	20.0	0.15 U	21.9	110	70-120	
1,2-Dichloroethane	20.0	0.21 U	21.1	105	64-138	
1,2-Dichloropropane	20.0	0.15 U	22.2	111	72-131	
1,3-Dichlorobenzene	20.0	0.15 U	21.2	106	71-120	
1,3-Dichloropropane	20.0	0.21 U	20.8	104	58-137	
1,4-Dichlorobenzene	20.0	0.16 U	21.2	106	72-120	
2,2-Dichloropropane	20.0	0.31 U	20.3	102	34-153	
2-Butanone (MEK)	40.0	1.2 U	44.3	111	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0.26 U	0	10-120	F1
2-Chlorotoluene	20.0	0.15 U	22.5	113	52-134	
2-Hexanone	40.0	0.54 U	38.2	95	21-184	
4-Chlorotoluene	20.0	0.090 U	21.8	109	52-133	
4-Isopropyltoluene	20.0	0.13 U	21.9	110	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	0.42 U	38.6	97	53-147	
Acetone	40.0	5.4 U	41.3	103	19-133	
Benzene	20.0	0.13 U	22.2	111	69-127	
Bromobenzene	20.0	0.12 U	20.9	104	59-131	
Bromoform	20.0	0.76 U	20.7	104	61-135	
Bromomethane	20.0	0.42 U	21.3	107	10-148	
Carbon disulfide	20.0	0.28 U	23.0	115	46-143	
Carbon tetrachloride	20.0	0.26 U	23.3	116	53-175	
Chlorobenzene	20.0	0.14 U	22.1	111	76-120	
Chlorodibromomethane	20.0	0.39 U	21.8	109	62-131	
Chloroethane	20.0	0.83 U	21.3	107	10-141	
Chloroform	20.0	0.13 U	23.3	117	74-125	
Chloromethane	20.0	0.20 U	20.6	103	34-127	
cis-1,2-Dichloroethene	20.0	0.16 U	24.1	120	69-127	
cis-1,3-Dichloropropene	20.0	0.61 U	20.8	104	68-120	
Dibromomethane	20.0	0.090 U	20.9	105	73-120	
Bromochloromethane	20.0	0.14 U	21.1	105	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264076.D

Lab ID: 240-96003-2 MS Client ID: MSA-MW-22D-052118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	0.35 U	21.7	108	45-130	
Bromodichloromethane	20.0	0.17 U	22.2	111	75-128	
tert-Butyl alcohol	200	1.7 U	228	114	70-130	
Ethylbenzene	20.0	0.11 U	21.7	109	72-121	
Hexachlorobutadiene	20.0	0.83 U	20.8	104	30-134	
Isopropylbenzene	20.0	0.090 U	22.2	111	70-132	
Methyl tert-butyl ether	20.0	0.070 U	22.3	111	67-125	
Methylene Chloride	20.0	2.6 U	22.5	112	52-137	
m-Xylene & p-Xylene	20.0	0.080 U	22.2	111	70-121	
Naphthalene	20.0	0.32 U	21.7	109	28-150	
n-Butylbenzene	20.0	0.14 U	20.7	104	38-133	
N-Propylbenzene	20.0	0.15 U	22.0	110	50-134	
o-Xylene	20.0	0.090 U	22.5	112	71-125	
sec-Butylbenzene	20.0	0.13 U	21.4	107	43-133	
Styrene	20.0	0.10 U	22.1	110	74-125	
Tetrachloroethene	20.0	0.15 U	21.4	107	69-126	
Toluene	20.0	0.14 U	21.8	109	69-125	
trans-1,2-Dichloroethene	20.0	0.19 U	23.1	116	66-131	
trans-1,3-Dichloropropene	20.0	0.67 U	19.3	96	59-120	
Trichloroethene	20.0	0.10 U	22.0	110	68-129	
Trichlorofluoromethane	20.0	0.45 U	24.7	124	28-172	
Vinyl acetate	20.0	0.19 U	23.3	117	51-134	
Vinyl chloride	20.0	0.20 U	21.9	110	55-123	
Xylenes, Total	40.0	0.15 U	44.7	112	71-122	
tert-Butylbenzene	20.0	0.14 U	21.7	109	48-131	
1,2-Dibromoethane	20.0	0.12 U	21.5	107	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264077.D

Lab ID: 240-96003-2 MSD Client ID: MSA-MW-22D-052118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	22.0	110	4	18	67-142	
1,1,1-Trichloroethane	20.0	22.6	113	4	13	57-156	
1,1,2,2-Tetrachloroethane	20.0	20.3	102	1	17	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	25.5	127	2	35	58-137	
1,1-Dichloroethane	20.0	23.3	116	5	11	69-122	
1,1-Dichloroethene	20.0	23.1	115	1	14	62-127	
1,1-Dichloropropene	20.0	21.2	106	6	35	55-136	
1,2,3-Trichlorobenzene	20.0	22.2	111	2	35	40-139	
1,2,3-Trichloropropane	20.0	20.4	102	1	12	41-152	
1,2,4-Trichlorobenzene	20.0	21.7	109	1	35	26-138	
1,2,4-Trimethylbenzene	20.0	22.0	110	1	22	64-120	
1,2-Dibromo-3-Chloropropane	20.0	21.2	106	2	31	48-130	
1,2-Dichlorobenzene	20.0	21.7	109	1	19	70-120	
1,2-Dichloroethane	20.0	19.7	98	7	11	64-138	
1,2-Dichloropropane	20.0	21.3	107	4	12	72-131	
1,3-Dichlorobenzene	20.0	21.5	108	1	18	71-120	
1,3-Dichloropropane	20.0	19.9	100	4	35	58-137	
1,4-Dichlorobenzene	20.0	21.5	108	2	17	72-120	
2,2-Dichloropropane	20.0	20.1	100	1	35	34-153	
2-Butanone (MEK)	40.0	40.3	101	9	23	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0	NC	35	10-120	F1
2-Chlorotoluene	20.0	22.2	111	1	35	52-134	
2-Hexanone	40.0	37.7	94	1	12	21-184	
4-Chlorotoluene	20.0	21.9	109	1	35	52-133	
4-Isopropyltoluene	20.0	22.2	111	1	22	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	37.5	94	3	16	53-147	
Acetone	40.0	41.2	103	0	35	19-133	
Benzene	20.0	21.2	106	5	10	69-127	
Bromobenzene	20.0	21.2	106	1	35	59-131	
Bromoform	20.0	19.8	99	5	13	61-135	
Bromomethane	20.0	20.1	101	6	35	10-148	
Carbon disulfide	20.0	22.8	114	1	18	46-143	
Carbon tetrachloride	20.0	23.0	115	1	17	53-175	
Chlorobenzene	20.0	21.2	106	4	12	76-120	
Chlorodibromomethane	20.0	20.8	104	5	15	62-131	
Chloroethane	20.0	20.8	104	2	35	10-141	
Chloroform	20.0	22.5	112	4	11	74-125	
Chloromethane	20.0	20.6	103	0	25	34-127	
cis-1,2-Dichloroethene	20.0	23.5	117	3	11	69-127	
cis-1,3-Dichloropropene	20.0	19.9	99	4	13	68-120	
Dibromomethane	20.0	19.9	100	5	16	73-120	
Bromochloromethane	20.0	20.8	104	1	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264077.D

Lab ID: 240-96003-2 MSD Client ID: MSA-MW-22D-052118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	20.5	103	5	34	45-130	
Bromodichloromethane	20.0	21.3	107	4	13	75-128	
tert-Butyl alcohol	200	222	111	3	35	70-130	
Ethylbenzene	20.0	20.5	103	6	15	72-121	
Hexachlorobutadiene	20.0	22.0	110	6	35	30-134	
Isopropylbenzene	20.0	21.6	108	3	16	70-132	
Methyl tert-butyl ether	20.0	21.5	107	4	12	67-125	
Methylene Chloride	20.0	21.6	108	4	12	52-137	
m-Xylene & p-Xylene	20.0	21.2	106	5	15	70-121	
Naphthalene	20.0	22.0	110	1	35	28-150	
n-Butylbenzene	20.0	21.0	105	1	35	38-133	
N-Propylbenzene	20.0	22.9	115	4	35	50-134	
o-Xylene	20.0	21.5	108	4	15	71-125	
sec-Butylbenzene	20.0	21.4	107	0	35	43-133	
Styrene	20.0	21.6	108	2	14	74-125	
Tetrachloroethene	20.0	20.5	103	4	18	69-126	
Toluene	20.0	21.0	105	4	14	69-125	
trans-1,2-Dichloroethene	20.0	22.8	114	2	11	66-131	
trans-1,3-Dichloropropene	20.0	19.2	96	0	14	59-120	
Trichloroethene	20.0	21.6	108	2	12	68-129	
Trichlorofluoromethane	20.0	23.8	119	4	26	28-172	
Vinyl acetate	20.0	22.6	113	3	12	51-134	
Vinyl chloride	20.0	21.0	105	5	12	55-123	
Xylenes, Total	40.0	42.7	107	5	14	71-122	
tert-Butylbenzene	20.0	21.9	110	1	35	48-131	
1,2-Dibromoethane	20.0	20.8	104	3	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: U1264054.D Lab Sample ID: MB 240-329448/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 05/31/2018 19:01

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329448/4	U1264050.D	05/31/2018 17:29
TB-052118	240-96003-1	U1264066.D	05/31/2018 23:37
MSA-MW-22D-052118	240-96003-2	U1264067.D	06/01/2018 00:00
MSA-MW-26S-052118	240-96003-3	U1264068.D	06/01/2018 00:23
MSA-MW-42S-052118	240-96003-4	U1264069.D	06/01/2018 00:46
MSA-MW-42I-052118	240-96003-5	U1264070.D	06/01/2018 01:10
MSA-MW-23S-052218	240-96003-6	U1264071.D	06/01/2018 01:33
MSA-MW-23D-052218	240-96003-7	U1264072.D	06/01/2018 01:56
MSA-MW-41S-052218	240-96003-8	U1264073.D	06/01/2018 02:20
MSA-MW-41I-052218	240-96003-9	U1264074.D	06/01/2018 02:43
MSA-MW-22D-052118 MS	240-96003-2 MS	U1264076.D	06/01/2018 03:30
MSA-MW-22D-052118 MSD	240-96003-2 MSD	U1264077.D	06/01/2018 03:53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329448/8

Matrix: Water | Lab File ID: U1264054.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329448/8

Matrix: Water | Lab File ID: U1264054.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329448 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329448/8

Matrix: Water Lab File ID: U1264054.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2018 19:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	113		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329448/8

Matrix: Water Lab File ID: U1264054.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2018 19:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329448/8

Matrix: Water Lab File ID: U1264054.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2018 19:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329448 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: BFB3839.D BFB Injection Date: 05/24/2018

Instrument ID: A3UX12 BFB Injection Time: 11:19

Analysis Batch No.: 328331

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	87.1	
175	5.0 - 9.0 % of mass 174	6.9	(8.0) 1
176	95.0 - 101.0 % of mass 174	85.5	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-328331/10	U1263873.D	05/24/2018	12:04
	STD8260 240-328331/11	U1263874.D	05/24/2018	12:27
	STD8260 240-328331/12	U1263875.D	05/24/2018	12:51
	ICIS 240-328331/13	U1263876a.D	05/24/2018	13:14
	STD8260 240-328331/14	U1263877.D	05/24/2018	13:37
	STD8260 240-328331/15	U1263878.D	05/24/2018	14:01
	STD8260 240-328331/16	U1263879.D	05/24/2018	14:24
	ICV 240-328331/17	U1263880.D	05/24/2018	14:59
	STDA9 240-328331/20	U1263883.D	05/24/2018	16:09
	STDA9 240-328331/21	U1263884.D	05/24/2018	16:32
	STDA9 240-328331/22	U1263885.D	05/24/2018	16:55
	STDA9 240-328331/23	U1263886.D	05/24/2018	17:19
	STDA9 240-328331/24	U1263887.D	05/24/2018	17:42
	STDA9 240-328331/25	U1263888.D	05/24/2018	18:05
	ICV 240-328331/26	U1263889.D	05/24/2018	18:28

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2603	0.1596 0.2588	0.1879	0.2097	0.2205	Ave		0.2161			0.1000	18.3		20.0			
Chloromethane	0.2074 0.1888	0.1877 0.1804	0.1977	0.1856	0.1846	Ave		0.1903			0.1000	4.8		20.0			
Vinyl chloride	0.2355 0.2253	0.2131 0.2200	0.2267	0.2184	0.2153	Ave		0.2220			0.1000	3.5		20.0			
Butadiene	0.1940 0.1994	0.1514 0.1974	0.1906	0.1873	0.1866	Ave		0.1867				8.7		20.0			
Bromomethane	0.2520 0.2446	0.2310 0.2444	0.2365	0.2318	0.2332	Ave		0.2391			0.0500	3.4		20.0			
Chloroethane	+++++ 0.1670	0.1522 0.1660	0.1773	0.1694	0.1669	Ave		0.1665			0.0500	4.9		20.0			
Dichlorofluoromethane	0.4008 0.3897	0.3845 0.3741	0.4047	0.3774	0.3746	Ave		0.3865				3.2		20.0			
Trichlorofluoromethane	0.3368 0.4334	0.3271 0.4354	0.3952	0.3978	0.4019	Ave		0.3897			0.1000	11.0		20.0			
Ethyl ether	0.1493 0.1341	0.1445 0.1280	0.1452	0.1377	0.1283	Ave		0.1382				6.1		20.0			
Acrolein	+++++ 0.0159	0.0173 0.0153	0.0166	0.0153	0.0155	Ave		0.0160				5.2		20.0			
1,1-Dichloroethene	0.2449 0.2791	0.2600 0.2719	0.2932	0.2858	0.2708	Ave		0.2722			0.1000	5.9		20.0			
1,1,2-Trichlorotrifluoroethane	0.1633 0.2132	0.1574 0.2146	0.1765	0.2150	0.1920	Ave		0.1903			0.0500	13.1		20.0			
Acetone	0.1362 0.0312	0.0816 0.0284	0.0371	0.0355	0.0297	Lin1	0.1094	0.0290			0.0100	9.0			0.9950		0.9900
Iodomethane	0.3231 0.3397	0.3218 0.3308	0.3571	0.3402	0.3221	Ave		0.3335				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6495 0.5749	0.5392 0.5649	0.5900	0.5818	0.5519	Ave		0.5789			0.1000	6.2		20.0			
3-Chloro-1-propene	0.2475 0.1995	0.2215 0.1969	0.2149	0.2060	0.1896	Ave		0.2108				9.2		20.0			
Methyl acetate	+++++ 0.0774	0.0837 0.0748	0.0851	0.0806	0.0755	Ave		0.0795		*	0.1000	5.4		20.0			
Methylene Chloride	0.4380 0.1993	0.3213 0.1925	0.2268	0.2134	0.1923	Lin1	0.1303	0.1948			0.1000	6.8			0.9980		0.9900
tert-Butyl alcohol	0.0171 0.0129	0.0156 0.0126	0.0141	0.0133	0.0121	Ave		0.0139				12.8		20.0			
Acrylonitrile	0.0417 0.0394	0.0367 0.0384	0.0414	0.0395	0.0376	Ave		0.0392				4.7		20.0			
trans-1,2-Dichloroethene	0.2490 0.2464	0.2315 0.2456	0.2530	0.2538	0.2385	Ave		0.2454			0.1000	3.3		20.0			
Methyl tert-butyl ether	0.5466 0.5478	0.5391 0.5434	0.5741	0.5509	0.5300	Ave		0.5474			0.1000	2.5		20.0			
Hexane	0.1442 0.2124	0.1444 0.2137	0.1655	0.2165	0.1829	Ave		0.1828				17.6		20.0			
1,1-Dichloroethane	0.2725 0.2856	0.2504 0.2795	0.2801	0.2750	0.2700	Ave		0.2733			0.2000	4.2		20.0			
Vinyl acetate	0.2049 0.1712	0.1486 0.1712	0.1684	0.1714	0.1637	Ave		0.1713				9.9		20.0			
2,2-Dichloropropane	0.3326 0.3112	0.3168 0.3086	0.3113	0.3073	0.2950	Ave		0.3118				3.6		20.0			
cis-1,2-Dichloroethene	0.2183 0.2381	0.2079 0.2310	0.2360	0.2380	0.2289	Ave		0.2283			0.1000	5.0		20.0			
2-Butanone (MEK)	0.0173 0.0168	0.0153 0.0169	0.0162	0.0165	0.0173	Ave		0.0166			0.0100	4.4		20.0			
Bromochloromethane	0.1044 0.1207	0.1401 0.1163	0.1338	0.1249	0.1142	Ave		0.1221				9.9		20.0			
Tetrahydrofuran	0.0443 0.0288	0.0332 0.0272	0.0329	0.0292	0.0268	Ave		0.0318				19.2		20.0			
Chloroform	0.3438 0.3710	0.3124 0.3603	0.3733	0.3631	0.3548	Ave		0.3541			0.2000	5.9		20.0			
1,1,1-Trichloroethane	0.3716 0.3736	0.3211 0.3687	0.3683	0.3664	0.3544	Ave		0.3606			0.1000	5.1		20.0			
Cyclohexane	0.2329 0.3488	0.2672 0.3461	0.3014	0.3503	0.3172	Ave		0.3091			0.1000	14.7		20.0			
1,1-Dichloropropene	0.2929 0.2971	0.2649 0.2887	0.2947	0.3019	0.2853	Ave		0.2894				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2662 0.3269	0.2488 0.3244	0.3003	0.3102	0.3070	Ave		0.2977			0.1000	9.9		20.0			
Isobutyl alcohol	0.0029 0.0027	0.0033 0.0026	0.0027	0.0027	0.0028	Ave		0.0028				8.3		20.0			
Benzene	0.8220 0.8347	0.8632 0.8053	0.8648	0.8617	0.8164	Ave		0.8383			0.5000	3.0		20.0			
1,2-Dichloroethane	0.2781 0.2490	0.2459 0.2375	0.2674	0.2543	0.2422	Ave		0.2535			0.1000	5.7		20.0			
n-Heptane	+++++ 0.1461	0.7106 0.1358	0.1626	0.1663	0.1391	Lin1	0.5718	0.1267				11.1			0.9960		0.9900
Trichloroethene	0.2773 0.2678	0.2388 0.2554	0.2699	0.2673	0.2548	Ave		0.2616			0.1500	4.9		20.0			
Methylcyclohexane	0.3305 0.4054	0.2970 0.4008	0.3354	0.4164	0.3766	Ave		0.3660			0.1000	12.4		20.0			
1,2-Dichloropropane	0.1712 0.1672	0.1493 0.1616	0.1772	0.1756	0.1655	Ave		0.1668			0.1000	5.7		20.0			
Dibromomethane	0.1515 0.1343	0.1266 0.1299	0.1422	0.1375	0.1292	Ave		0.1359				6.4		20.0			
1,4-Dioxane	+++++ 0.0009	0.0006 0.0009	0.0009	0.0010	0.0009	Ave		0.0009				13.1		20.0			
Bromodichloromethane	0.2416 0.2938	0.2446 0.2857	0.2836	0.2940	0.2801	Ave		0.2748			0.1500	8.1		20.0			
2-Chloroethyl vinyl ether	0.0806 0.0946	0.0897 0.0919	0.1013	0.0967	0.0908	Ave		0.0922				7.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.3094	0.2730 0.3008	0.3091	0.3181	0.2975	Ave		0.3013			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.1140 0.1171	0.1013 0.1094	0.1240	0.1197	0.1134	Ave		0.1141			0.0500	6.4		20.0			
Toluene	1.3467 1.3118	1.1191 1.2374	1.3358	1.3489	1.2626	Ave		1.2803			0.4000	6.5		20.0			
trans-1,3-Dichloropropene	0.3185 0.3610	0.3260 0.3476	0.3434	0.3500	0.3436	Ave		0.3414			0.1000	4.3		20.0			
Ethyl methacrylate	0.2428 0.2914	0.1957 0.2820	0.2901	0.2943	0.2828	Ave		0.2684				13.6		20.0			
1,1,2-Trichloroethane	0.2852 0.2262	0.2091 0.2131	0.2311	0.2343	0.2150	Ave		0.2306			0.1000	11.2		20.0			
Tetrachloroethene	0.3640 0.3537	0.3678 0.3338	0.3594	0.3555	0.3378	Ave		0.3532			0.1500	3.6		20.0			
1,3-Dichloropropane	0.3663 0.3709	0.3736 0.3436	0.3924	0.3874	0.3539	Ave		0.3697				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1137 0.1004	0.0944 0.0942	0.0980	0.1077	0.0963	Ave		0.1007			0.0500	7.3		20.0			
Chlorodibromomethane	0.2426 0.2756	0.2085 0.2695	0.2562	0.2580	0.2589	Ave		0.2528				8.8		20.0			
1,2-Dibromoethane	0.2253 0.2319	0.2226 0.2237	0.2249	0.2389	0.2258	Ave		0.2276				2.5		20.0			
Chlorobenzene	0.9032 0.8827	0.8855 0.8358	0.9087	0.9064	0.8416	Ave		0.8806			0.3000	3.4		20.0			
1,1,1,2-Tetrachloroethane	0.2269 0.3044	0.2708 0.2998	0.2923	0.3039	0.2896	Ave		0.2840				9.8		20.0			
Ethylbenzene	0.5365 0.5247	0.4708 0.4913	0.5155	0.5171	0.4914	Ave		0.5068				4.5		20.0			
m-Xylene & p-Xylene	0.5462 0.6441	0.5853 0.6064	0.6290	0.6595	0.6120	Ave		0.6118				6.2		20.0			
o-Xylene	0.5661 0.6282	0.5236 0.5896	0.6127	0.6224	0.5928	Ave		0.5908				6.2		20.0			
Styrene	0.8186 1.0437	0.8060 1.0026	0.9867	1.0463	0.9911	Ave		0.9564			0.3000	10.6		20.0			
Bromoform	0.1105 0.1602	0.1050 0.1610	0.1327	0.1459	0.1493	Ave		0.1378			0.1000	16.4		20.0			
Isopropylbenzene	1.3938 1.6579	1.3584 1.5726	1.6265	1.6491	1.6098	Ave		1.5526			0.1000	8.0		20.0			
1,1,2,2-Tetrachloroethane	0.5045 0.4821	0.5217 0.4622	0.5362	0.5136	0.4747	Ave		0.4993			0.3000	5.4		20.0			
Bromobenzene	0.7775 0.6744	0.6592 0.6375	0.7145	0.6830	0.6534	Ave		0.6856				6.9		20.0			
1,2,3-Trichloropropane	0.2212 0.1853	0.1986 0.1774	0.2004	0.2035	0.1816	Ave		0.1954				7.8		20.0			
trans-1,4-Dichloro-2-butene	0.1209 0.1066	0.1082 0.1041	0.1067	0.1106	0.1087	Ave		0.1094				5.0		20.0			
N-Propylbenzene	0.7810 0.8362	0.7719 0.7988	0.8577	0.8470	0.8190	Ave		0.8159				4.1		20.0			
2-Chlorotoluene	0.5876 0.6916	0.6326 0.6547	0.7137	0.7013	0.6731	Ave		0.6649				6.6		20.0			
1,3,5-Trimethylbenzene	2.1686 2.4046	2.1972 2.2268	2.5058	2.4349	2.3842	Ave		2.3317				5.7		20.0			
4-Chlorotoluene	0.6197 0.7362	0.7190 0.6968	0.7891	0.7523	0.7173	Ave		0.7186				7.3		20.0			
tert-Butylbenzene	1.8792 2.1952	2.1226 2.0625	2.2747	2.2647	2.1429	Ave		2.1345				6.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1653 2.4838	2.1121 2.3064	2.5623	2.5789	2.4738	Ave		2.3832				8.0		20.0			
sec-Butylbenzene	2.7737 3.1879	2.9667 2.9457	3.2622	3.2796	3.1613	Ave		3.0824				6.2		20.0			
1,3-Dichlorobenzene	1.5385 1.4184	1.3127 1.3284	1.4509	1.4168	1.3707	Ave		1.4052			0.6000	5.5		20.0			
4-Isopropyltoluene	2.2676 2.7935	2.2972 2.6408	2.8270	2.9023	2.7638	Ave		2.6417				9.8		20.0			
1,4-Dichlorobenzene	1.4706 1.4265	1.4330 1.3421	1.5140	1.4335	1.4032	Ave		1.4318			0.5000	3.7		20.0			
n-Butylbenzene	1.9934 2.2812	2.0508 2.1308	2.2919	2.4064	2.2477	Ave		2.2003				6.7		20.0			
1,2-Dichlorobenzene	1.3934 1.3187	1.2311 1.2432	1.3592	1.3305	1.2923	Ave		1.3098			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.1032 0.1100	0.0809 0.1011	0.1044	0.1122	0.1037	Ave		0.1022			0.0500	10.0		20.0			
1,2,4-Trichlorobenzene	0.7311 0.8173	0.7877 0.7727	0.8469	0.8445	0.7941	Ave		0.7992			0.2000	5.1		20.0			
Hexachlorobutadiene	0.2879 0.3170	0.2808 0.2948	0.3381	0.3375	0.3085	Ave		0.3092				7.4		20.0			
Naphthalene	1.6292 1.8963	1.5873 1.7441	1.9389	1.9038	1.8201	Ave		1.7885				7.8		20.0			
1,2,3-Trichlorobenzene	0.7541 0.7429	0.7203 0.6908	0.7879	0.7603	0.7277	Ave		0.7406				4.2		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2216	0.2440 0.2155	0.2291	0.2485	0.2201	Ave		0.2298				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2164	0.2762 0.2040	0.2290	0.2496	0.2251	Ave		0.2334				11.1		20.0			
Toluene-d8 (Surr)	+++++ 1.1675	1.1849 1.0961	1.1790	1.3154	1.1696	Ave		1.1854				6.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4427	0.5009 0.4124	0.4521	0.4866	0.4365	Ave		0.4552				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 836716	10659 1356845	129504	307447	527839	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	6573 606767	12534 945518	136250	272132	441934	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	7466 724175	14233 1153367	156204	320226	515473	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	6149 641049	10115 1034602	131327	274536	446820	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	7989 786266	15428 1281423	162987	339913	558324	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	+++++ 536782	10167 870008	122182	248430	399560	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	12704 1252708	25683 1961196	278895	553280	896806	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Ave	10676 1393219	21847 2282675	272303	583216	962155	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	4731 431146	9649 670873	100073	201952	307128	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	+++++ 255151	5789 401377	57110	111900	185343	+++++ 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	7762 897045	17367 1425304	202037	418960	648405	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	5177 685245	10512 1125177	121624	315153	459532	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	8636 200513	10906 297733	51152	103989	141984	1.00 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	10240 1092137	21497 1733962	246046	498788	771044	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	20586 1848049	36013 2961360	406574	852996	1321243	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	7845 641173	14794 1032415	148046	302041	453905	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	+++++ 497671	11179 784563	117215	236205	361615	+++++ 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Lin1	13884 640679	21463 1009068	156249	312803	460479	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butyl alcohol	FB	Ave	5405 413396	10432 660089	96856	194350	290646	5.00 400	10.0 600	100	200	300
Acrylonitrile	FB	Ave	13224 1265136	24514 2014229	285524	578925	900156	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	7894 792117	15466 1287479	174318	372117	570882	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	17327 1760853	36007 2848507	395602	807630	1268870	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	4572 682811	9647 1120146	114071	317391	437966	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	8637 918050	16722 1465220	192994	403240	646322	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	6494 550377	9924 897393	116069	251270	391830	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2,2-Dichloropropane	FB	Ave	10542 1000311	21160 1617945	214490	450555	706156	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	6920 765388	13888 1211170	162638	348873	548052	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1099 107946	2039 177321	22285	48377	82812	1.00 80.0	2.00 120	20.0	40.0	60.0
Bromochloromethane	FB	Ave	3309 387997	9357 609521	92218	183091	273510	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	2811 185117	4434 284989	45365	85475	128248	1.00 80.0	2.00 120	20.0	40.0	60.0
Chloroform	FB	Ave	10896 1192612	20868 1888956	257197	532313	849391	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	11778 1201100	21445 1932932	253811	537246	848496	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	7382 1121309	17850 1814262	207704	513648	759439	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	9285 955093	17695 1513250	203081	442674	682919	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	8439 1050762	16620 1700503	206908	454802	735068	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	2281 219722	5559 342515	46801	99816	167628	12.5 1000	25.0 1500	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	26054 2683174	57658 4221296	595916	1263408	1954561	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	8815 800372	16427 1245124	184229	372901	579790	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Lin1	+++++ 469684	47464 711684	112066	243761	332888	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	8790 860920	15949 1338647	185998	391958	610011	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	10475 1303087	19836 2101031	231084	610517	901520	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	5426 537548	9973 847063	122090	257442	396260	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	4803 431685	8453 681210	98005	201657	309359	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 58909	859 92887	12208	28340	43042	+++++ 800	20.0 1200	200	400	600
Bromodichloromethane	FB	Ave	7658 944342	16340 1497600	195430	430996	670514	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	5108 608105	11983 963771	139592	283678	434942	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	9555 994497	18238 1577074	213023	466323	712122	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	7226 752921	13539 1147394	170870	350895	542899	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	33763 3383969	60013 5227197	758286	1597185	2445935	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7985 931257	17482 1468166	194915	414417	665678	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	6087 751622	10497 1191373	164680	348434	547863	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7149 583454	11216 900112	131179	277419	416554	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	9126 912389	19725 1410194	204025	420995	654320	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	9182 956812	20035 1451437	222736	458728	685491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	5700 518082	10122 795884	111241	255113	373063	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	6083 711006	11180 1138432	145413	305548	501614	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromoethane	CBNZ d5	Ave	5649 598330	11937 944967	127659	282834	437354	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22642 2277174	47489 3530784	515849	1073289	1630422	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5688 785271	14524 1266544	165922	359896	561051	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	13451 1353560	25247 2075431	292638	612293	952035	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13693 1661542	31386 2561742	357074	780858	1185491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	14191 1620511	28079 2490453	347825	736984	1148412	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	20523 2692449	43221 4235085	560106	1238894	1920005	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	2771 413209	5633 680252	75312	172781	289170	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	34943 4276917	72849 6643081	923332	1952636	3118455	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6482 726920	14014 1151993	162720	342254	524399	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	9990 1016942	17706 1588832	216825	455070	721754	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	2842 279423	5335 442197	60819	135587	200642	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1553 160803	2905 259472	32370	73667	120023	0.500 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	10035 1260863	20733 1990915	260304	564400	904727	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	7550 1042842	16993 1631918	216589	467282	743492	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27866 3625921	59018 5550188	760465	1622449	2633651	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	7963 1110149	19313 1736739	239483	501248	792316	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	24147 3310251	57014 5140650	690332	1509038	2367105	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27823 3745450	56731 5748723	777610	1718376	2732590	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	35641 4807054	79687 7341976	990023	2185251	3492121	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	19769 2138839	35261 3310983	440321	944059	1514166	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	29137 4212380	61703 6582081	857947	1933833	3053017	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	18896 2150985	38491 3345122	459469	955199	1550073	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	25614 3439902	55086 5310842	695561	1603447	2482925	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	17905 1988542	33068 3098556	412500	886511	1427528	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1326 165910	2173 251884	31697	74782	114565	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9394 1232350	21159 1925969	257019	562699	877240	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Ave	3700 477944	7542 734897	102618	224900	340816	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	20935 2859477	42636 4347233	588415	1268563	2010582	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9690 1120212	19347 1721913	239101	506574	803821	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 712237	16295 1129611	157886	364266	526872	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 695647	18449 1069518	157765	365938	538919	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3011915	63545 4630386	669298	1557504	2265712	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1142168	26861 1742177	256666	576212	845559	+++++ 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	-7.8						50					
Methylene Chloride	-8.9						50					
n-Heptane	+++++	9.6						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0149 0.0086	0.0117	0.0096	0.0091	0.0087	Lin1	0.0331	0.0087				5.1			0.9990		0.9900
Diisopropyl ether	0.2136 0.1661	0.1537	0.1706	0.1671	0.1641	Ave		0.1725				12.1		20.0			
2-Chloro-1,3-butadiene	0.2218 0.2515	0.2229	0.2470	0.2431	0.2439	Ave		0.2384				5.4		20.0			
Ethyl tert-butyl ether	0.4589 0.4718	0.4486	0.4746	0.4744	0.4625	Ave		0.4651				2.2		20.0			
Ethyl acetate	0.0909 0.0956	0.1013	0.0981	0.0965	0.0934	Ave		0.0960				3.8		20.0			
Propionitrile	0.0135 0.0124	0.0112	0.0123	0.0130	0.0121	Ave		0.0124				6.4		20.0			
Methacrylonitrile	0.0559 0.0581	0.0518	0.0576	0.0577	0.0565	Ave		0.0563				4.2		20.0			
Tert-amyl methyl ether	0.5437 0.6092	0.5168	0.5806	0.5993	0.5972	Ave		0.5745				6.3		20.0			
n-Butanol	0.0011 0.0022	0.0012	0.0018	0.0021	0.0020	Lin1	-0.019	0.0021				12.8			0.9970		0.9900
Ethyl acrylate	0.1408 0.1655	0.1361	0.1640	0.1551	0.1612	Ave		0.1538				8.1		20.0			
Methyl methacrylate	0.1001 0.0981	0.0960	0.0956	0.0962	0.0964	Ave		0.0971				1.8		20.0			
2-Nitropropane	0.0241 0.0213	0.0177	0.0173	0.0177	0.0202	Ave		0.0197				13.8		20.0			
n-Butyl acetate	0.2041 0.2537	0.2303	0.2253	0.2361	0.2392	Ave		0.2314				7.1		20.0			
1-Chlorohexane	0.4105 0.4711	0.4132	0.4259	0.4405	0.4652	Ave		0.4377				5.9		20.0			
Cyclohexanone	+++++ 0.0034	0.0033	0.0028	0.0032	0.0032	Ave		0.0032				7.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2700 0.3211	0.2502	0.3057	0.3057	0.3364	Ave		0.2982				10.8		20.0			
1,2,3-Trimethylbenzene	1.8506 2.6441	2.0229	2.4674	2.5828	2.6602	Ave		2.3713				14.7		20.0			
Benzyl chloride	+++++ 1.0064	0.5621	0.6642	0.8127	0.9426	Ave		0.7976				23.3	*	20.0			
1,3,5-Trichlorobenzene	0.7965 1.0155	0.8427	0.9496	1.0009	1.0090	Ave		0.9357				10.1		20.0			
2-Methylnaphthalene	0.6928 1.3694	0.7960	1.0557	1.2692	1.3391	Lin1	-0.934	1.3355				14.4			0.9970		0.9900
1-Chloro-1-fluoroethane TIC	+++++ 0.0074	+++++	0.0043	0.0087	0.0081	Ave		0.0072				27.2	*	20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	5250 423243	8044	67959	133267	269967	5.00 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	7539 817942	10575	120398	243520	511789	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7826 1238431	15336	174290	354278	760814	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	16194 2323130	30867	334911	691479	1442619	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	6415 941575	13940	138394	281195	582740	1.00 120	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	4770 611325	7693	86742	188891	378461	5.00 600	10.0	100	200	400
Methacrylonitrile	FB	Ave	19726 2859077	35630	406374	840863	1763537	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	19188 2999911	35557	409724	873561	1862508	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Lin1	931 270622	2047	31540	74794	157631	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4969 814876	9363	115737	226113	502874	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	7065 965742	13209	134968	280528	601425	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1704 209992	2435	24345	51463	125697	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	5784 923078	12659	127078	266124	558797	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	11635 1714225	22715	240265	496450	1086662	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	+++++ 125128	1814	15861	36026	74201	+++++ 600	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	7922 1187211	13520	176938	345649	778009	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	27150 4888493	54649	714091	1460244	3076169	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	+++++ 1860588	15185	192228	459481	1090030	+++++ 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11685 1877495	22765	274829	565868	1166769	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	20328 5063616	43010	611047	1435115	3097024	1.00 120	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	+++++ 36645	+++++	3064	12753	25187	+++++ 60.0	+++++	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	-4.8						50					
n-Butanol	20.3						50					
2-Methylnaphthalene	21.8						50					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.1825	0.1000	0.0169	0.0200	-15.6	30.0
Chloromethane	Ave	0.1903	0.1844	0.1000	0.0194	0.0200	-3.1	30.0
Vinyl chloride	Ave	0.2220	0.2246	0.1000	0.0202	0.0200	1.2	30.0
Butadiene	Ave	0.1867	0.1724		0.0185	0.0200	-7.6	30.0
Bromomethane	Ave	0.2391	0.2246	0.0500	0.0188	0.0200	-6.1	30.0
Chloroethane	Ave	0.1665	0.1615	0.0500	0.0194	0.0200	-3.0	30.0
Dichlorofluoromethane	Ave	0.3865	0.4011		0.0208	0.0200	3.8	30.0
Trichlorofluoromethane	Ave	0.3897	0.3981	0.1000	0.0204	0.0200	2.2	30.0
Ethyl ether	Ave	0.1382	0.1458		0.0211	0.0200	5.5	30.0
Acrolein	Ave	0.0160	0.0101		0.0634	0.100	-36.6	50.0
1,1-Dichloroethene	Ave	0.2722	0.2970	0.1000	0.0218	0.0200	9.1	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.1896	0.0500	0.0199	0.0200	-0.4	30.0
Acetone	Lin1		0.0304	0.0100	0.0381	0.0400	-4.8	50.0
Iodomethane	Ave	0.3335	0.3759		0.0225	0.0200	12.7	30.0
Carbon disulfide	Ave	0.5789	0.6356	0.1000	0.0220	0.0200	9.8	30.0
3-Chloro-1-propene	Ave	0.2108	0.2169		0.0206	0.0200	2.9	30.0
Methyl acetate	Ave	0.0795	0.0728*	0.1000	0.0366	0.0400	-8.4	30.0
Methylene Chloride	Lin1		0.2159	0.1000	0.0215	0.0200	7.5	50.0
tert-Butyl alcohol	Ave	0.0139	0.0123		0.176	0.200	-11.8	50.0
Acrylonitrile	Ave	0.0392	0.0395		0.201	0.200	0.7	30.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2696	0.1000	0.0220	0.0200	9.9	30.0
Methyl tert-butyl ether	Ave	0.5474	0.5572	0.1000	0.0204	0.0200	1.8	30.0
Hexane	Ave	0.1828	0.1797		0.0197	0.0200	-1.7	30.0
1,1-Dichloroethane	Ave	0.2733	0.3017	0.2000	0.0221	0.0200	10.4	30.0
Vinyl acetate	Ave	0.1713	0.2072		0.0242	0.0200	20.9	50.0
2,2-Dichloropropane	Ave	0.3118	0.3218		0.0206	0.0200	3.2	30.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2549	0.1000	0.0223	0.0200	11.7	30.0
2-Butanone (MEK)	Ave	0.0166	0.0177	0.0100	0.0426	0.0400	6.4	30.0
Bromochloromethane	Ave	0.1221	0.1248		0.0204	0.0200	2.2	30.0
Tetrahydrofuran	Ave	0.0318	0.0283		0.0357	0.0400	-10.8	30.0
Chloroform	Ave	0.3541	0.3881	0.2000	0.0219	0.0200	9.6	30.0
1,1,1-Trichloroethane	Ave	0.3606	0.3898	0.1000	0.0216	0.0200	8.1	30.0
Cyclohexane	Ave	0.3091	0.3100	0.1000	0.0201	0.0200	0.3	30.0
1,1-Dichloropropene	Ave	0.2894	0.3051		0.0211	0.0200	5.4	30.0
Carbon tetrachloride	Ave	0.2977	0.3337	0.1000	0.0224	0.0200	12.1	30.0
Isobutyl alcohol	Ave	0.0028	0.0023		0.412	0.500	-17.7	30.0
Benzene	Ave	0.8383	0.8536	0.5000	0.0204	0.0200	1.8	30.0
1,2-Dichloroethane	Ave	0.2535	0.2576	0.1000	0.0203	0.0200	1.6	30.0
n-Heptane	Lin1		0.1449		0.0184	0.0200	-8.2	30.0
Trichloroethene	Ave	0.2616	0.2786	0.1500	0.0213	0.0200	6.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.3532	0.1000	0.0193	0.0200	-3.5	30.0
1,2-Dichloropropane	Ave	0.1668	0.1792	0.1000	0.0215	0.0200	7.5	30.0
Dibromomethane	Ave	0.1359	0.1350		0.0199	0.0200	-0.7	30.0
1,4-Dioxane	Ave	0.0009	0.0010		0.469	0.400	17.4	50.0
Bromodichloromethane	Ave	0.2748	0.2951	0.1500	0.0215	0.0200	7.4	30.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0973		0.0211	0.0200	5.4	30.0
cis-1,3-Dichloropropene	Ave	0.3013	0.3301	0.1500	0.0219	0.0200	9.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1119	0.0500	0.0392	0.0400	-2.0	30.0
Toluene	Ave	1.280	1.339	0.4000	0.0209	0.0200	4.6	30.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3504	0.1000	0.0205	0.0200	2.6	30.0
Ethyl methacrylate	Ave	0.2684	0.2767		0.0206	0.0200	3.1	30.0
1,1,2-Trichloroethane	Ave	0.2306	0.2325	0.1000	0.0202	0.0200	0.8	30.0
Tetrachloroethene	Ave	0.3532	0.3576	0.1500	0.0203	0.0200	1.3	30.0
1,3-Dichloropropane	Ave	0.3697	0.3589		0.0194	0.0200	-2.9	30.0
2-Hexanone	Ave	0.1007	0.0975	0.0500	0.0387	0.0400	-3.2	30.0
Chlorodibromomethane	Ave	0.2528	0.2657		0.0210	0.0200	5.1	30.0
1,2-Dibromoethane	Ave	0.2276	0.2301		0.0202	0.0200	1.1	30.0
Chlorobenzene	Ave	0.8806	0.9033	0.3000	0.0205	0.0200	2.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.3063		0.0216	0.0200	7.9	30.0
Ethylbenzene	Ave	0.5068	0.5153		0.0203	0.0200	1.7	30.0
m-Xylene & p-Xylene	Ave	0.6118	0.6451		0.0211	0.0200	5.4	30.0
o-Xylene	Ave	0.5908	0.6139		0.0208	0.0200	3.9	30.0
Styrene	Ave	0.9564	0.9916	0.3000	0.0207	0.0200	3.7	30.0
Bromoform	Ave	0.1378	0.1469	0.1000	0.0213	0.0200	6.6	30.0
Isopropylbenzene	Ave	1.553	1.657	0.1000	0.0213	0.0200	6.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4932	0.3000	0.0198	0.0200	-1.2	30.0
Bromobenzene	Ave	0.6856	0.6787		0.0198	0.0200	-1.0	30.0
1,2,3-Trichloropropane	Ave	0.1954	0.1847		0.0189	0.0200	-5.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1156		0.0211	0.0200	5.7	30.0
N-Propylbenzene	Ave	0.8159	0.8582		0.0210	0.0200	5.2	30.0
2-Chlorotoluene	Ave	0.6649	0.7139		0.0215	0.0200	7.4	30.0
1,3,5-Trimethylbenzene	Ave	2.332	2.419		0.0207	0.0200	3.7	30.0
4-Chlorotoluene	Ave	0.7186	0.7375		0.0205	0.0200	2.6	30.0
tert-Butylbenzene	Ave	2.135	2.255		0.0211	0.0200	5.6	30.0
1,2,4-Trimethylbenzene	Ave	2.383	2.489		0.0209	0.0200	4.4	30.0
sec-Butylbenzene	Ave	3.082	3.237		0.0210	0.0200	5.0	30.0
1,3-Dichlorobenzene	Ave	1.405	1.408	0.6000	0.0200	0.0200	0.2	30.0
4-Isopropyltoluene	Ave	2.642	2.890		0.0219	0.0200	9.4	30.0
1,4-Dichlorobenzene	Ave	1.432	1.444	0.5000	0.0202	0.0200	0.8	30.0
n-Butylbenzene	Ave	2.200	2.350		0.0214	0.0200	6.8	30.0
1,2-Dichlorobenzene	Ave	1.310	1.313	0.4000	0.0200	0.0200	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1045	0.0500	0.0204	0.0200	2.2	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8250	0.2000	0.0206	0.0200	3.2	50.0
Hexachlorobutadiene	Ave	0.3092	0.3464		0.0224	0.0200	12.0	30.0
Naphthalene	Ave	1.789	1.876		0.0210	0.0200	4.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7670		0.0207	0.0200	3.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2573		0.0224	0.0200	12.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2471		0.0212	0.0200	5.9	30.0
Toluene-d8 (Surr)	Ave	1.185	1.315		0.0222	0.0200	11.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4784		0.0210	0.0200	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2298	0.2443		0.0213	0.0200	6.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2489		0.0213	0.0200	6.6	30.0
Toluene-d8 (Surr)	Ave	1.185	1.303		0.0220	0.0200	9.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4324		0.0190	0.0200	-5.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0091		0.206	0.200	2.8	30.0
Diisopropyl ether	Ave	0.1725	0.1813		0.0210	0.0200	5.1	30.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2607		0.0219	0.0200	9.4	30.0
Ethyl tert-butyl ether	Ave	0.4651	0.5016		0.0216	0.0200	7.8	30.0
Ethyl acetate	Ave	0.0960	0.0951		0.0396	0.0400	-0.9	50.0
Propionitrile	Ave	0.0124	0.0130		0.209	0.200	4.6	30.0
Methacrylonitrile	Ave	0.0563	0.0586		0.208	0.200	4.2	30.0
Tert-amyl methyl ether	Ave	0.5745	0.6127		0.0213	0.0200	6.6	30.0
n-Butanol	Lin1		0.0022		0.518	0.500	3.6	30.0
Ethyl acrylate	Ave	0.1538	0.1592		0.0207	0.0200	3.5	30.0
Methyl methacrylate	Ave	0.0971	0.0975		0.0402	0.0400	0.4	30.0
2-Nitropropane	Ave	0.0197	0.0188		0.0382	0.0400	-4.5	30.0
n-Butyl acetate	Ave	0.2314	0.2409		0.0208	0.0200	4.1	30.0
1-Chlorohexane	Ave	0.4377	0.4642		0.0212	0.0200	6.0	30.0
Cyclohexanone	Ave	0.0032	0.0033		0.210	0.200	4.9	30.0
Pentachloroethane	Ave	0.2982	0.3135		0.0421	0.0400	5.1	30.0
1,2,3-Trimethylbenzene	Ave	2.371	2.696		0.0227	0.0200	13.7	30.0
Benzyl chloride	Ave	0.7976	0.8396		0.0211	0.0200	5.3	30.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.031		0.0220	0.0200	10.2	30.0
2-Methylnaphthalene	Lin1		1.249		0.0381	0.0400	-4.7	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: BFB3851.D BFB Injection Date: 05/31/2018

Instrument ID: A3UX12 BFB Injection Time: 16:41

Analysis Batch No.: 329448

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	51.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	80.9	
175	5.0 - 9.0 % of mass 174	6.6	(8.2) 1
176	95.0 - 101.0 % of mass 174	78.3	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-329448/3	U1264049.D	05/31/2018	17:05
	LCS 240-329448/4	U1264050.D	05/31/2018	17:29
	CCV 240-329448/5	U1264051.D	05/31/2018	17:52
	MB 240-329448/8	U1264054.D	05/31/2018	19:01
TB-052118	240-96003-1	U1264066.D	05/31/2018	23:37
MSA-MW-22D-052118	240-96003-2	U1264067.D	06/01/2018	00:00
MSA-MW-26S-052118	240-96003-3	U1264068.D	06/01/2018	00:23
MSA-MW-42S-052118	240-96003-4	U1264069.D	06/01/2018	00:46
MSA-MW-42I-052118	240-96003-5	U1264070.D	06/01/2018	01:10
MSA-MW-23S-052218	240-96003-6	U1264071.D	06/01/2018	01:33
MSA-MW-23D-052218	240-96003-7	U1264072.D	06/01/2018	01:56
MSA-MW-41S-052218	240-96003-8	U1264073.D	06/01/2018	02:20
MSA-MW-41I-052218	240-96003-9	U1264074.D	06/01/2018	02:43
MSA-MW-22D-052118 MS	240-96003-2 MS	U1264076.D	06/01/2018	03:30
MSA-MW-22D-052118 MSD	240-96003-2 MSD	U1264077.D	06/01/2018	03:53

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCVIS 240-329448/3 Calibration Date: 05/31/2018 17:05

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264049.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.3234	0.1000	0.0299	0.0200	49.6*	20.0
Chloromethane	Ave	0.1903	0.2123	0.1000	0.0223	0.0200	11.6	20.0
Vinyl chloride	Ave	0.2220	0.2393	0.1000	0.0216	0.0200	7.8	20.0
Butadiene	Ave	0.1867	0.2212		0.0237	0.0200	18.5	20.0
Bromomethane	Ave	0.2391	0.2563	0.0500	0.0214	0.0200	7.2	20.0
Chloroethane	Ave	0.1665	0.1822	0.0500	0.0219	0.0200	9.5	20.0
Dichlorofluoromethane	Ave	0.3865	0.4128		0.0214	0.0200	6.8	20.0
Trichlorofluoromethane	Ave	0.3897	0.5015	0.1000	0.0257	0.0200	28.7*	20.0
Ethyl ether	Ave	0.1382	0.1445		0.0209	0.0200	4.6	20.0
Acrolein	Ave	0.0160	0.0144		0.0900	0.100	-10.0	50.0
1,1-Dichloroethene	Ave	0.2722	0.3167	0.1000	0.0233	0.0200	16.3	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.2727	0.0500	0.0287	0.0200	43.3*	20.0
Acetone	Lin1		0.0346	0.0100	0.0440	0.0400	9.9	50.0
Iodomethane	Ave	0.3335	0.3929		0.0236	0.0200	17.8	20.0
Carbon disulfide	Ave	0.5789	0.6797	0.1000	0.0235	0.0200	17.4	20.0
3-Chloro-1-propene	Ave	0.2108	0.2271		0.0215	0.0200	7.7	20.0
Methyl acetate	Ave	0.0795	0.0836*	0.1000	0.0420	0.0400	5.1	20.0
Methylene Chloride	Lin1		0.2214	0.1000	0.0221	0.0200	10.3	50.0
tert-Butyl alcohol	Ave	0.0139	0.0167		0.239	0.200	19.5	50.0
Acrylonitrile	Ave	0.0392	0.0415		0.212	0.200	5.8	20.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2754	0.1000	0.0224	0.0200	12.2	20.0
Methyl tert-butyl ether	Ave	0.5474	0.5799	0.1000	0.0212	0.0200	5.9	20.0
Hexane	Ave	0.1828	0.2757		0.0302	0.0200	50.8*	20.0
1,1-Dichloroethane	Ave	0.2733	0.3261	0.2000	0.0239	0.0200	19.3	20.0
Vinyl acetate	Ave	0.1713	0.1805		0.0211	0.0200	5.4	50.0
2,2-Dichloropropane	Ave	0.3118	0.3468		0.0222	0.0200	11.2	20.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2589	0.1000	0.0227	0.0200	13.4	20.0
2-Butanone (MEK)	Ave	0.0166	0.0172	0.0100	0.0415	0.0400	3.7	20.0
Bromochloromethane	Ave	0.1221	0.1256		0.0206	0.0200	2.9	20.0
Tetrahydrofuran	Ave	0.0318	0.0275		0.0346	0.0400	-13.4	20.0
Chloroform	Ave	0.3541	0.3926	0.2000	0.0222	0.0200	10.9	20.0
1,1,1-Trichloroethane	Ave	0.3606	0.4007	0.1000	0.0222	0.0200	11.1	20.0
Cyclohexane	Ave	0.3091	0.4113	0.1000	0.0266	0.0200	33.1*	20.0
1,1-Dichloropropene	Ave	0.2894	0.3206		0.0222	0.0200	10.8	20.0
Carbon tetrachloride	Ave	0.2977	0.3430	0.1000	0.0230	0.0200	15.2	20.0
Isobutyl alcohol	Ave	0.0028	0.0031		0.552	0.500	10.3	20.0
Benzene	Ave	0.8383	0.9120	0.5000	0.0218	0.0200	8.8	20.0
1,2-Dichloroethane	Ave	0.2535	0.2583	0.1000	0.0204	0.0200	1.9	20.0
n-Heptane	Lin1		0.1832		0.0244	0.0200	22.1*	20.0
Trichloroethene	Ave	0.2616	0.2770	0.1500	0.0212	0.0200	5.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCVIS 240-329448/3 Calibration Date: 05/31/2018 17:05

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264049.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.4740	0.1000	0.0259	0.0200	29.5*	20.0
1,2-Dichloropropane	Ave	0.1668	0.1772	0.1000	0.0212	0.0200	6.2	20.0
Dibromomethane	Ave	0.1359	0.1324		0.0195	0.0200	-2.6	20.0
1,4-Dioxane	Ave	0.0009	0.0014		0.648	0.400	61.9*	50.0
Bromodichloromethane	Ave	0.2748	0.3019	0.1500	0.0220	0.0200	9.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0910		0.0394	0.0400	-1.4	20.0
cis-1,3-Dichloropropene	Ave	0.3013	0.3140	0.1500	0.0208	0.0200	4.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1104	0.0500	0.0387	0.0400	-3.3	20.0
Toluene	Ave	1.280	1.409	0.4000	0.0220	0.0200	10.0	20.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3563	0.1000	0.0209	0.0200	4.4	20.0
Ethyl methacrylate	Ave	0.2684	0.2886		0.0215	0.0200	7.5	20.0
1,1,2-Trichloroethane	Ave	0.2306	0.2390	0.1000	0.0207	0.0200	3.7	20.0
Tetrachloroethene	Ave	0.3532	0.3755	0.1500	0.0213	0.0200	6.3	20.0
1,3-Dichloropropane	Ave	0.3697	0.3775		0.0204	0.0200	2.1	20.0
2-Hexanone	Ave	0.1007	0.0969	0.0500	0.0385	0.0400	-3.7	20.0
Chlorodibromomethane	Ave	0.2528	0.2745		0.0217	0.0200	8.6	20.0
1,2-Dibromoethane	Ave	0.2276	0.2347		0.0206	0.0200	3.1	20.0
Chlorobenzene	Ave	0.8806	0.9332	0.3000	0.0212	0.0200	6.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.3141		0.0221	0.0200	10.6	20.0
Ethylbenzene	Ave	0.5068	0.5479		0.0216	0.0200	8.1	20.0
m-Xylene & p-Xylene	Ave	0.6118	0.6693		0.0219	0.0200	9.4	20.0
o-Xylene	Ave	0.5908	0.6532		0.0221	0.0200	10.6	20.0
Styrene	Ave	0.9564	1.074	0.3000	0.0225	0.0200	12.3	20.0
Bromoform	Ave	0.1378	0.1513	0.1000	0.0220	0.0200	9.8	20.0
Isopropylbenzene	Ave	1.553	1.751	0.1000	0.0226	0.0200	12.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.5015	0.3000	0.0201	0.0200	0.5	20.0
Bromobenzene	Ave	0.6856	0.7010		0.0204	0.0200	2.2	20.0
1,2,3-Trichloropropane	Ave	0.1954	0.1949		0.0199	0.0200	-0.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1090		0.0199	0.0200	-0.4	20.0
N-Propylbenzene	Ave	0.8159	0.8944		0.0219	0.0200	9.6	20.0
2-Chlorotoluene	Ave	0.6649	0.7161		0.0215	0.0200	7.7	20.0
1,3,5-Trimethylbenzene	Ave	2.332	2.550		0.0219	0.0200	9.4	20.0
4-Chlorotoluene	Ave	0.7186	0.7737		0.0215	0.0200	7.7	20.0
tert-Butylbenzene	Ave	2.135	2.341		0.0219	0.0200	9.7	20.0
1,2,4-Trimethylbenzene	Ave	2.383	2.668		0.0224	0.0200	12.0	20.0
sec-Butylbenzene	Ave	3.082	3.489		0.0226	0.0200	13.2	20.0
1,3-Dichlorobenzene	Ave	1.405	1.426	0.6000	0.0203	0.0200	1.5	20.0
4-Isopropyltoluene	Ave	2.642	3.006		0.0228	0.0200	13.8	20.0
1,4-Dichlorobenzene	Ave	1.432	1.459	0.5000	0.0204	0.0200	1.9	20.0
n-Butylbenzene	Ave	2.200	2.482		0.0226	0.0200	12.8	20.0
1,2-Dichlorobenzene	Ave	1.310	1.354	0.4000	0.0207	0.0200	3.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCVIS 240-329448/3 Calibration Date: 05/31/2018 17:05

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264049.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1074	0.0500	0.0210	0.0200	5.1	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8428	0.2000	0.0211	0.0200	5.5	50.0
Hexachlorobutadiene	Ave	0.3092	0.3442		0.0223	0.0200	11.3	20.0
Naphthalene	Ave	1.789	1.881		0.0210	0.0200	5.2	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7651		0.0207	0.0200	3.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2459		0.0214	0.0200	7.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2378		0.0204	0.0200	1.9	20.0
Toluene-d8 (Surr)	Ave	1.185	1.286		0.0217	0.0200	8.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4708		0.0207	0.0200	3.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-329448/5 Calibration Date: 05/31/2018 17:52

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1264051.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0133		0.303	0.200	51.3*	20.0
Diisopropyl ether	Ave	0.1725	0.2299		0.0266	0.0200	33.2*	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.3327		0.0279	0.0200	39.6*	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.6174		0.0265	0.0200	32.7*	20.0
Ethyl acetate	Ave	0.0960	0.1235		0.0515	0.0400	28.7	50.0
Propionitrile	Ave	0.0124	0.0169		0.272	0.200	35.9*	20.0
Methacrylonitrile	Ave	0.0563	0.0708		0.252	0.200	25.8*	20.0
Tert-amyl methyl ether	Ave	0.5745	0.7414		0.0258	0.0200	29.1*	20.0
n-Butanol	Lin1		0.0037		0.879	0.500	75.8*	20.0
Ethyl acrylate	Ave	0.1538	0.1926		0.0250	0.0200	25.2*	20.0
Methyl methacrylate	Ave	0.0971	0.1152		0.0475	0.0400	18.6	20.0
2-Nitropropane	Ave	0.0197	0.0247		0.0501	0.0400	25.1*	20.0
n-Butyl acetate	Ave	0.2314	0.2791		0.0241	0.0200	20.6*	20.0
1-Chlorohexane	Ave	0.4377	0.5840		0.0267	0.0200	33.4*	20.0
Cyclohexanone	Ave	0.0032	0.0052		0.328	0.200	63.9*	20.0
Pentachloroethane	Ave	0.2982	0.4477		0.0601	0.0400	50.2*	20.0
1,2,3-Trimethylbenzene	Ave	2.371	3.224		0.0272	0.0200	36.0*	20.0
Benzyl chloride	Ave	0.7976	1.101		0.0276	0.0200	38.0*	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.210		0.0259	0.0200	29.4*	20.0
2-Methylnaphthalene	Lin1		1.543		0.0469	0.0400	17.3	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: ICIS 240-328331/13 Date Analyzed: 05/24/2018 13:14

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263876a.D Heated Purge: (Y/N) N

Calibration ID: 45345

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1466112	5.10	1184093	7.76	666320	9.97
UPPER LIMIT		2932224	5.60	2368186	8.26	1332640	10.47
LOWER LIMIT		733056	4.60	592047	7.26	333160	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-328331/17		1644962	5.10	1326619	7.76	746221	9.97
ICV 240-328331/26		1501263	5.10	1169376	7.76	574191	9.97
CCVIS 240-329448/3		1530889	5.10	1205012	7.76	680476	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: CCVIS 240-329448/3 Date Analyzed: 05/31/2018 17:05

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264049.D Heated Purge: (Y/N) N

Calibration ID: 45349

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1530889	5.10	1205012	7.76	680476	9.97
UPPER LIMIT		3061778	5.60	2410024	8.26	1360952	10.47
LOWER LIMIT		765445	4.60	602506	7.26	340238	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-329448/4		1551414	5.10	1215572	7.76	679331	9.97
CCV 240-329448/5		1366868	5.10	1071437	7.76	530231	9.97
MB 240-329448/8		1359103	5.10	1079762	7.76	549571	9.97
240-96003-1	TB-052118	1430348	5.10	1152344	7.76	561213	9.97
240-96003-2	MSA-MW-22D-052118	1383191	5.10	1104698	7.76	546723	9.97
240-96003-3	MSA-MW-26S-052118	1440530	5.10	1145393	7.76	557538	9.97
240-96003-4	MSA-MW-42S-052118	1336389	5.10	1115297	7.76	569112	9.97
240-96003-5	MSA-MW-42I-052118	1426377	5.10	1121631	7.76	571656	9.97
240-96003-6	MSA-MW-23S-052218	1360014	5.10	1097076	7.76	543181	9.97
240-96003-7	MSA-MW-23D-052218	1382616	5.10	1105305	7.76	552158	9.97
240-96003-8	MSA-MW-41S-052218	1429565	5.10	1131225	7.76	573456	9.97
240-96003-9	MSA-MW-41I-052218	1383667	5.10	1090608	7.76	532576	9.97
240-96003-2 MS	MSA-MW-22D-052118 MS	1373508	5.10	1098197	7.76	619065	9.97
240-96003-2 MSD	MSA-MW-22D-052118 MSD	1487118	5.10	1199220	7.76	653332	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A3UX12 Start Date: 05/24/2018 11:19

Analysis Batch Number: 328331 End Date: 05/24/2018 18:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-328331/1		05/24/2018 11:19	1	BFB3839.D	DB-624 0.18(mm)
STD8260 240-328331/10 IC		05/24/2018 12:04	1	U1263873.D	DB-624 0.18(mm)
STD8260 240-328331/11 IC		05/24/2018 12:27	1	U1263874.D	DB-624 0.18(mm)
STD8260 240-328331/12 IC		05/24/2018 12:51	1	U1263875.D	DB-624 0.18(mm)
ICIS 240-328331/13		05/24/2018 13:14	1	U1263876a.D	DB-624 0.18(mm)
STD8260 240-328331/14 IC		05/24/2018 13:37	1	U1263877.D	DB-624 0.18(mm)
STD8260 240-328331/15 IC		05/24/2018 14:01	1	U1263878.D	DB-624 0.18(mm)
STD8260 240-328331/16 IC		05/24/2018 14:24	1	U1263879.D	DB-624 0.18(mm)
ICV 240-328331/17		05/24/2018 14:59	1	U1263880.D	DB-624 0.18(mm)
STDA9 240-328331/20 IC		05/24/2018 16:09	1	U1263883.D	DB-624 0.18(mm)
STDA9 240-328331/21 IC		05/24/2018 16:32	1	U1263884.D	DB-624 0.18(mm)
STDA9 240-328331/22 IC		05/24/2018 16:55	1	U1263885.D	DB-624 0.18(mm)
STDA9 240-328331/23 IC		05/24/2018 17:19	1	U1263886.D	DB-624 0.18(mm)
STDA9 240-328331/24 IC		05/24/2018 17:42	1	U1263887.D	DB-624 0.18(mm)
STDA9 240-328331/25 IC		05/24/2018 18:05	1	U1263888.D	DB-624 0.18(mm)
ICV 240-328331/26		05/24/2018 18:28	1	U1263889.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A3UX12 Start Date: 05/31/2018 16:41

Analysis Batch Number: 329448 End Date: 06/01/2018 03:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-329448/1		05/31/2018 16:41	1	BFB3851.D	DB-624 0.18(mm)
CCVIS 240-329448/3		05/31/2018 17:05	1	U1264049.D	DB-624 0.18(mm)
LCS 240-329448/4		05/31/2018 17:29	1	U1264050.D	DB-624 0.18(mm)
CCV 240-329448/5		05/31/2018 17:52	1	U1264051.D	DB-624 0.18(mm)
MRL 240-329448/6 MDLV		05/31/2018 18:15	1		DB-624 0.18(mm)
MRL 240-329448/7 MDLV		05/31/2018 18:38	1		DB-624 0.18(mm)
MB 240-329448/8		05/31/2018 19:01	1	U1264054.D	DB-624 0.18(mm)
ZZZZZ		05/31/2018 21:19	1		DB-624 0.18(mm)
ZZZZZ		05/31/2018 21:42	1		DB-624 0.18(mm)
ZZZZZ		05/31/2018 22:05	1		DB-624 0.18(mm)
ZZZZZ		05/31/2018 22:28	1		DB-624 0.18(mm)
ZZZZZ		05/31/2018 22:51	1		DB-624 0.18(mm)
ZZZZZ		05/31/2018 23:14	1		DB-624 0.18(mm)
240-96003-1		05/31/2018 23:37	1	U1264066.D	DB-624 0.18(mm)
240-96003-2		06/01/2018 00:00	1	U1264067.D	DB-624 0.18(mm)
240-96003-3		06/01/2018 00:23	1	U1264068.D	DB-624 0.18(mm)
240-96003-4		06/01/2018 00:46	200	U1264069.D	DB-624 0.18(mm)
240-96003-5		06/01/2018 01:10	40	U1264070.D	DB-624 0.18(mm)
240-96003-6		06/01/2018 01:33	1	U1264071.D	DB-624 0.18(mm)
240-96003-7		06/01/2018 01:56	1	U1264072.D	DB-624 0.18(mm)
240-96003-8		06/01/2018 02:20	100	U1264073.D	DB-624 0.18(mm)
240-96003-9		06/01/2018 02:43	40	U1264074.D	DB-624 0.18(mm)
ZZZZZ		06/01/2018 03:06	1		DB-624 0.18(mm)
240-96003-2 MS		06/01/2018 03:30	1	U1264076.D	DB-624 0.18(mm)
240-96003-2 MSD		06/01/2018 03:53	1	U1264077.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
BFB 240-328331/1		8260C		1 mL	5 mL				
STD8260 240-328331/10 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
STD8260 240-328331/11 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-328331/12 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
ICIS 240-328331/13		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-328331/14 IC		8260C		5 mL	5 mL	2 uL	24 uL		24 uL
STD8260 240-328331/15 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-328331/16 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
ICV 240-328331/17		8260C		5 mL	5 mL	2 uL		2 uL	
STDA9 240-328331/20 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/21 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/22 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/23 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/24 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/25 IC		8260C		5 mL	5 mL	2 uL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
ICV 240-328331/26		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
BFB 240-328331/1		8260C		1 uL					
STD8260 240-328331/10 IC		8260C							
STD8260 240-328331/11 IC		8260C							
STD8260 240-328331/12 IC		8260C							
ICIS 240-328331/13		8260C							
STD8260 240-328331/14 IC		8260C							
STD8260 240-328331/15 IC		8260C							
STD8260 240-328331/16 IC		8260C							
ICV 240-328331/17		8260C				16 uL	16 uL	16 uL	
STDA9 240-328331/20 IC		8260C							0.4 uL
STDA9 240-328331/21 IC		8260C							0.8 uL
STDA9 240-328331/22 IC		8260C							8 uL
STDA9 240-328331/23 IC		8260C							16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
STDA9 240-328331/24 IC		8260C							32 uL
STDA9 240-328331/25 IC		8260C							48 uL
ICV 240-328331/26		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
BFB 240-328331/1		8260C							
STD8260 240-328331/10 IC		8260C		0.4 uL	0.4 uL				
STD8260 240-328331/11 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-328331/12 IC		8260C		8 uL	8 uL				
ICIS 240-328331/13		8260C		16 uL	16 uL				
STD8260 240-328331/14 IC		8260C		24 uL	24 uL				
STD8260 240-328331/15 IC		8260C		32 uL	32 uL				
STD8260 240-328331/16 IC		8260C		48 uL	48 uL				
ICV 240-328331/17		8260C							
STDA9 240-328331/20 IC		8260C							
STDA9 240-328331/21 IC		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
STDA9 240-328331/22 IC		8260C							
STDA9 240-328331/23 IC		8260C							
STDA9 240-328331/24 IC		8260C							
STDA9 240-328331/25 IC		8260C							
ICV 240-328331/26		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 329448 Batch Start Date: 05/31/18 16:41 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00249
BFB 240-329448/1		8260C		1 mL	5 mL				
CCVIS 240-329448/3		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-329448/4		8260C		5 mL	5 mL		2 uL	2 uL	
CCV 240-329448/5		8260C		5 mL	5 mL		2 uL		
MB 240-329448/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-96003-B-1	TB-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-C-2	MSA-MW-22D-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-3	MSA-MW-26S-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-4	MSA-MW-42S-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-5	MSA-MW-42I-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-6	MSA-MW-23S-052218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-7	MSA-MW-23D-052218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-8	MSA-MW-41S-052218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-B-9	MSA-MW-41I-052218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-H-2 MS	MSA-MW-22D-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96003-E-2 MSD	MSA-MW-22D-052118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00259	vmfaspw 00253	vmra9w 00252	vmrgas 00248
BFB 240-329448/1		8260C		1 uL					
CCVIS 240-329448/3		8260C							16 uL
LCS 240-329448/4		8260C			16 uL	16 uL	16 uL		
CCV 240-329448/5		8260C						16 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 329448 Batch Start Date: 05/31/18 16:41 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00259	vmfaspw 00253	vmra9w 00252	vmrgas 00248
MB 240-329448/8		8260C							
240-96003-B-1	TB-052118	8260C	T						
240-96003-C-2	MSA-MW-22D-052118	8260C	T						
240-96003-B-3	MSA-MW-26S-052118	8260C	T						
240-96003-B-4	MSA-MW-42S-052118	8260C	T						
240-96003-B-5	MSA-MW-42I-052118	8260C	T						
240-96003-B-6	MSA-MW-23S-052218	8260C	T						
240-96003-B-7	MSA-MW-23D-052218	8260C	T						
240-96003-B-8	MSA-MW-41S-052218	8260C	T						
240-96003-B-9	MSA-MW-41I-052218	8260C	T						
240-96003-H-2 MS	MSA-MW-22D-052118	8260C	T		16 uL	16 uL	16 uL		
240-96003-E-2 MSD	MSA-MW-22D-052118	8260C	T		16 uL	16 uL	16 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-329448/1		8260C							
CCVIS 240-329448/3		8260C		16 uL					
LCS 240-329448/4		8260C							
CCV 240-329448/5		8260C							
MB 240-329448/8		8260C							
240-96003-B-1	TB-052118	8260C	T						
240-96003-C-2	MSA-MW-22D-052118	8260C	T						
240-96003-B-3	MSA-MW-26S-052118	8260C	T						
240-96003-B-4	MSA-MW-42S-052118	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 329448 Batch Start Date: 05/31/18 16:41 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
240-96003-B-5	MSA-MW-42I-052118	8260C	T						
240-96003-B-6	MSA-MW-23S-052218	8260C	T						
240-96003-B-7	MSA-MW-23D-052218	8260C	T						
240-96003-B-8	MSA-MW-41S-052218	8260C	T						
240-96003-B-9	MSA-MW-41I-052218	8260C	T						
240-96003-H-2 MS	MSA-MW-22D-052118	8260C	T						
240-96003-E-2 MSD	MSA-MW-22D-052118	8260C	T						

Batch Notes	
pH Indicator ID	HC740840

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
MSA-MW-22D-052118	240-96003-2	51	41	61	64	85	77
MSA-MW-26S-052118	240-96003-3	41	37	54	61	81	75
MSA-MW-42S-052118	240-96003-4	72	37	71	68	96	66
MSA-MW-42I-052118	240-96003-5	61	56	72	65	88	70
MSA-MW-23S-052218	240-96003-6	57	55	82	76	111	82
MSA-MW-23D-052218	240-96003-7	57	49	66	72	91	72
MSA-MW-41S-052218	240-96003-8	52	44	63	62	59	69
MSA-MW-41I-052218	240-96003-9	67	53	75	76	70	82
	MB 240-328327/23-A	52	47	67	79	92	88
	LCS 240-328327/24-A	71	50	87	82	106	84
MSA-MW-22D-052118 MS	240-96003-2 MS	46	45	64	55	91	68
MSA-MW-22D-052118 MSD	240-96003-2 MSD	39	29	53	47	79	66

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80528005.D

Lab ID: LCS 240-328327/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	15.1	47	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80528011.D

Lab ID: 240-96003-2 MS Client ID: MSA-MW-22D-052118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	30.8	0.36 U	11.8	38	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80528012.D

Lab ID: 240-96003-2 MSD Client ID: MSA-MW-22D-052118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	30.8	8.72	28	30	35	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: 80528004.D Lab Sample ID: MB 240-328327/23-A

Matrix: Water Date Extracted: 05/24/2018 08:32

Instrument ID: A4AG2 Date Analyzed: 05/28/2018 08:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328327/24-A	80528005.D	05/28/2018 09:05
MSA-MW-22D-052118	240-96003-2	80528010.D	05/28/2018 11:10
MSA-MW-22D-052118 MS	240-96003-2 MS	80528011.D	05/28/2018 11:35
MSA-MW-22D-052118 MSD	240-96003-2 MSD	80528012.D	05/28/2018 12:00
MSA-MW-26S-052118	240-96003-3	80528013.D	05/28/2018 12:25
MSA-MW-42S-052118	240-96003-4	80528017.D	05/28/2018 14:06
MSA-MW-42I-052118	240-96003-5	80528018.D	05/28/2018 14:31
MSA-MW-23S-052218	240-96003-6	80528019.D	05/28/2018 14:56
MSA-MW-23D-052218	240-96003-7	80528020.D	05/28/2018 15:21
MSA-MW-41S-052218	240-96003-8	80530008.D	05/30/2018 09:25
MSA-MW-41I-052218	240-96003-9	80530009.D	05/30/2018 09:49

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328327/23-A

Matrix: Water | Lab File ID: 80528004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/24/2018 08:32

Sample wt/vol: 250(mL) | Date Analyzed: 05/28/2018 08:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	52		17-120
321-60-8	2-Fluorobiphenyl (Surr)	79		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	92		33-120

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: 80522001.D DFTPP Injection Date: 05/22/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:44

Analysis Batch No.: 327899

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.5	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	40.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	10.6	
442	40.0 - 110.0% of mass 198	72.1	
443	15.0 - 24.0% of mass 442	13.8	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-327899/2	80522002.D	05/22/2018	07:02
	STD8 240-327899/3	80522003.D	05/22/2018	07:26
	STD7 240-327899/4	80522004.D	05/22/2018	07:51
	STD6 240-327899/5	80522005.D	05/22/2018	08:16
	STD5 240-327899/6	80522006.D	05/22/2018	08:41
	STD4 240-327899/7	80522007.D	05/22/2018	09:06
	STD3 240-327899/8	80522008.D	05/22/2018	09:31
	STD2 240-327899/9	80522009.D	05/22/2018	09:55
	STD1 240-327899/10	80522010.D	05/22/2018	10:20
	ICV 240-327899/11	80522011.D	05/22/2018	10:45

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-327899/10	80522010.D
Level 2	STD2 240-327899/9	80522009.D
Level 3	STD3 240-327899/8	80522008.D
Level 4	STD4 240-327899/7	80522007.D
Level 5	STD5 240-327899/6	80522006.D
Level 6	STD6 240-327899/5	80522005.D
Level 7	STD7 240-327899/4	80522004.D
Level 8	STD8 240-327899/3	80522003.D
Level 9	STD9 240-327899/2	80522002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2629	0.2709 0.3448	0.2953 0.2859	0.2820 0.2887	0.2688	Ave		0.2874				8.9		20.0			
N-Nitrosodimethylamine	1.0029	0.9052 1.0332	0.9282 1.0058	0.9513 1.0373	1.0161	Ave		0.9850				5.1		20.0			
Pyridine	0.9820 0.8006	0.7708 1.1099	0.7848 0.9630	0.7922 0.9506	0.8115	Ave		0.8850				13.5		20.0			
Benzaldehyde	+++++ 1.0761	1.5315 0.9497	1.4329 0.8429	1.4386 0.7958	1.1853	Qua	80.573	1.1646	-0.000079		0.0100				0.9990		0.9900
Phenol	1.7224	1.9152 1.8101	1.8655 1.7980	1.8641 1.8374	1.7723	Ave		1.8231			0.8000	3.3		20.0			
Aniline	2.7455	2.4901 2.6053	2.5265 2.5047	2.6376 2.5027	2.4985	Ave		2.5639				3.6		20.0			
Bis(2-chloroethyl)ether	1.6877	1.9125 1.7200	1.9111 1.6678	1.9357 1.8965	1.9013	Ave		1.8291			0.7000	6.3		20.0			
n-Decane	1.6988	1.7320 1.6695	1.7234 1.5432	1.7123 1.5187	1.7097	Ave		1.6635				5.1		20.0			
2-Chlorophenol	1.3590	1.4151 1.5273	1.4404 1.4840	1.5147 1.5001	1.5472	Ave		1.4735			0.8000	4.3		20.0			
1,3-Dichlorobenzene	1.6491	1.5983 1.6943	1.6643 1.6233	1.6544 1.6486	1.6662	Ave		1.6498				1.8		20.0			
1,4-Dichlorobenzene	1.7043	1.7471 1.7015	1.6918 1.6759	1.6923 1.6784	1.7044	Ave		1.6995				1.3		20.0			
Benzyl alcohol	1.1278	0.9432 1.0823	1.0008 1.0440	1.0406 1.0714	1.0594	Ave		1.0462				5.3		20.0			
1,2-Dichlorobenzene	1.6143	1.6616 1.6341	1.6260 1.5781	1.6634 1.6171	1.6255	Ave		1.6275				1.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.5272	1.4588 1.4768	1.4211 1.4371	1.4998 1.4714	1.4203	Ave		1.4641			0.7000	2.6		20.0			
bis (2-chloroisopropyl) ether	2.6612	2.9674 2.5374	2.8726 2.4256	3.0229 2.4737	2.7391	Ave		2.7125				8.4		20.0			
Indene	2.8544	3.0860 2.8207	2.9745 2.6110	3.1405 2.6400	2.9825	Ave		2.8887				6.7		20.0			
3 & 4 Methylphenol	1.5870	1.4768 1.5140	1.3841 1.4259	1.4318 1.4486	1.5042	Ave		1.4716				4.3		20.0			
N-Nitrosodi-n-propylamine	1.2864	1.2988 1.2390	1.3062 1.1854	1.3904 1.2116	1.3126	Ave		1.2788			0.5000	5.1		20.0			
Acetophenone	2.2911	2.3193 2.2318	2.2571 2.1432	2.4517 2.2317	2.3152	Ave		2.2801			0.0100	3.9		20.0			
Hexachloroethane	0.6513	0.6588 0.6510	0.6426 0.6367	0.6518 0.6526	0.6549	Ave		0.6500			0.3000	1.1		20.0			
Nitrobenzene	0.4050	0.3727 0.3939	0.3855 0.3927	0.3973 0.3876	0.4140	Ave		0.3936			0.2000	3.2		20.0			
Isophorone	0.7173	0.6673 0.7050	0.7165 0.6959	0.7363 0.6841	0.7417	Ave		0.7080			0.4000	3.6		20.0			
2,4-Dimethylphenol	0.3481	0.3036 0.3342	0.3250 0.3312	0.3293 0.3347	0.3517	Ave		0.3322			0.2000	4.4		20.0			
2-Nitrophenol	0.1757	0.1162 0.1772	0.1336 0.1806	0.1502 0.1751	0.1685	Ave		0.1596			0.1000	14.9		20.0			
Benzoic acid	0.1493	+++++ 0.1564	0.0700 0.1589	0.1000 0.1553	0.1314	Lin1	-21.08	0.1611							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.4455	0.4384 0.4262	0.4546 0.4281	0.4703 0.4112	0.4580	Ave		0.4416			0.3000	4.4		20.0			
2,4-Dichlorophenol	0.2609	0.2089 0.2515	0.2233 0.2440	0.2207 0.2468	0.2472	Ave		0.2379			0.2000	7.6		20.0			
1,2,4-Trichlorobenzene	0.2940	0.2748 0.2950	0.2820 0.3001	0.2840 0.3019	0.2910	Ave		0.2904				3.2		20.0			
Naphthalene	1.1251 1.0950	1.0735 1.0756	1.1103 1.0620	1.1091 1.0371	1.1234	Ave		1.0901			0.7000	2.8		20.0			
4-Chloroaniline	0.5908	0.5199 0.5802	0.5505 0.5253	0.5843 0.4826	0.5958	Ave		0.5537			0.0100	7.4		20.0			
2,6-Dichlorophenol	0.2662	0.2169 0.2700	0.2367 0.2700	0.2474 0.2735	0.2651	Ave		0.2557				7.9		20.0			
Hexachlorobutadiene	0.1495	0.1412 0.1537	0.1415 0.1556	0.1463 0.1591	0.1478	Ave		0.1493			0.0100	4.3		20.0			
Caprolactam	0.0776 0.1179	0.0934 0.1026	0.1059 0.1165	0.1184 0.1164	0.1204	Ave		0.1077			0.0100	13.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.2966	0.2231 0.2981	0.2266 0.2959	0.2560 0.2911	0.2880	Ave		0.2719			0.2000	11.8		20.0			
2-Methylnaphthalene	0.7045 0.7196	0.7017 0.7150	0.7216 0.7187	0.7219 0.7136	0.7329	Ave		0.7166			0.4000	1.3		20.0			
1-Methylnaphthalene	0.6497 0.6732	0.6382 0.6746	0.6675 0.6785	0.6891 0.6721	0.6960	Ave		0.6710				2.7		20.0			
Hexachlorocyclopentadiene	0.3422	0.2348 0.3566	0.2489 0.3696	0.2752 0.3781	0.3116	Ave		0.3146			0.0500	17.8		20.0			
1,2,4,5-Tetrachlorobenzene	0.5625	0.5168 0.5749	0.5005 0.5879	0.5167 0.5896	0.5447	Ave		0.5492			0.0100	6.3		20.0			
2,4,6-Trichlorophenol	0.3583	0.2425 0.3660	0.2680 0.3685	0.2997 0.3673	0.3375	Ave		0.3260			0.2000	15.3		20.0			
2,4,5-Trichlorophenol	0.3583	0.1795 0.3789	0.1923 0.3698	0.2393 0.3872	0.3275	Lin1	-15.80	0.3822			0.2000				0.9970		0.9900
1,1'-Biphenyl	1.5954 1.6950	1.6603 1.6804	1.6388 1.6952	1.6975 1.6357	1.6805	Ave		1.6643			0.0100	2.1		20.0			
2-Chloronaphthalene	1.2518 1.2794	1.2360 1.2834	1.2046 1.2902	1.2508 1.2763	1.2641	Ave		1.2596			0.8000	2.2		20.0			
2-Nitroaniline	0.4329	0.2906 0.4246	0.3328 0.4165	0.3730 0.3985	0.4161	Ave		0.3856			0.0100	13.1		20.0			
Dimethyl phthalate	1.4384	1.3405 1.4304	1.3711 1.4193	1.4138 1.3579	1.4222	Ave		1.3992			0.0100	2.6		20.0			
1,3-Dinitrobenzene	0.2246	0.1086 0.2281	0.1388 0.2255	0.1683 0.2240	0.2094	Lin1	-7.682	0.2289							0.9990		0.9900
2,6-Dinitrotoluene	0.3263	0.2100 0.3298	0.2570 0.3257	0.3020 0.3202	0.3228	Ave		0.2992				14.5		20.0			
Acenaphthylene	1.7375 1.9054	1.7478 1.8832	1.7630 1.8870	1.8831 1.8587	1.8900	Ave		1.8395			0.9000	3.7		20.0			
3-Nitroaniline	0.3312	0.2083 0.2925	0.2615 0.2759	0.3170 0.2638	0.3370	Ave		0.2859			0.0100	15.0		20.0			
2,4-Dinitrophenol	0.1307	+++++ 0.1405	0.0635 0.1489	0.0762 0.1538	0.1147	Lin1	-24.28	0.1523			0.0100				0.9960		0.9900
4-Nitrophenol	0.1952	+++++ 0.1983	0.1273 0.1912	0.1583 0.1925	0.1840	Ave		0.1781				14.7		20.0			
Acenaphthene	1.3248 1.3377	1.3298 1.3360	1.3237 1.3156	1.3383 1.2834	1.3312	Ave		1.3245			0.9000	1.3		20.0			
2,4-Dinitrotoluene	0.4090	0.2441 0.4104	0.2997 0.4071	0.3565 0.4118	0.4040	Ave		0.3678			0.2000	17.3		20.0			
Dibenzofuran	1.6770 1.8056	1.7405 1.8159	1.7302 1.8172	1.7942 1.7555	1.7834	Ave		1.7688			0.8000	2.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.2516	0.1153 0.2533	0.1615 0.2649	0.2108 0.2681	0.2511	Lin1	-9.016	0.2667			0.0100				0.9990		0.9900
Hexadecane	1.0403	1.0967 0.9762	1.1179 0.9304	1.1636 0.8694	1.1011	Ave		1.0370				9.9		20.0			
Diethyl phthalate	1.4850	1.4935 1.4550	1.4226 1.4199	1.4848 1.3975	1.4832	Ave		1.4552			0.0100	2.6		20.0			
4-Chlorophenyl phenyl ether	0.6809	0.6084 0.6929	0.6225 0.6912	0.6445 0.6870	0.6655	Ave		0.6616			0.4000	5.0		20.0			
4-Nitroaniline	0.3009	0.2625 0.2841	0.3068 0.2572	0.3336 0.2314	0.3036	Ave		0.2850			0.0100	11.6		20.0			
Fluorene	1.4196 1.5042	1.3477 1.5095	1.3930 1.4930	1.4522 1.4565	1.4760	Ave		1.4502			0.9000	3.8		20.0			
4,6-Dinitro-2-methylphenol	0.1056	0.0397 0.1193	0.0480 0.1226	0.0649 0.1192	0.0853	Lin1	-12.90	0.1200			0.0100				0.9930		0.9900
Diphenylamine	0.7554	0.6395 0.7641	0.6805 0.7557	0.6960 0.7326	0.7447	Ave		0.7211				6.2		20.0			
N-Nitrosodiphenylamine	0.6421	0.5436 0.6495	0.5784 0.6423	0.5916 0.6227	0.6330	Ave		0.6129			0.0100	6.2		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.0304	0.9224 1.0250	0.9795 0.9870	0.9873 0.9238	1.0267	Ave		0.9850				4.4		20.0			
Azobenzene	1.0304	0.9202 1.0250	0.9785 0.9874	0.9872 0.9238	1.0273	Ave		0.9850				4.4		20.0			
4-Bromophenyl phenyl ether	0.2222	0.1818 0.2343	0.1923 0.2365	0.1972 0.2308	0.2086	Ave		0.2130			0.1000	9.8		20.0			
Atrazine	0.1877 0.2371	0.1937 0.2403	0.2036 0.2347	0.2010 0.2235	0.2189	Ave		0.2156			0.0100	9.2		20.0			
Hexachlorobenzene	0.1843 0.2374	0.1910 0.2461	0.2005 0.2486	0.2013 0.2474	0.2189	Ave		0.2195			0.1000	11.8		20.0			
n-Octadecane	0.6596	0.5966 0.6517	0.6480 0.6176	0.6617 0.5679	0.6736	Ave		0.6346				5.8		20.0			
Pentachlorophenol	0.1143	+++++ 0.1271	0.0643 0.1341	0.0773 0.1338	0.0980	Lin1	-19.46	0.1342			0.0500				0.9960		0.9900
Phenanthrene	1.2069 1.1637	1.1065 1.1833	1.1106 1.1866	1.1278 1.1545	1.1630	Ave		1.1559			0.7000	3.0		20.0			
Anthracene	1.1103 1.2177	1.0610 1.2459	1.1117 1.2437	1.1479 1.2216	1.2003	Ave		1.1733			0.7000	5.7		20.0			
Carbazole	1.0666	0.9810 1.0853	1.0285 1.0796	1.0034 1.0534	1.0328	Ave		1.0413			0.0100	3.5		20.0			
Di-n-butyl phthalate	1.4960	1.2872 1.4739	1.3564 1.4572	1.3438 1.4227	1.4451	Ave		1.4103			0.0100	5.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0095 1.2012	1.0207 1.2183	1.0498 1.2326	1.0369 1.2112	1.1308	Ave		1.1234			0.6000	8.4		20.0			
Benzidine	 0.7317	0.2936 0.7479	0.3795 0.7188	0.5109 0.7071	0.6895	Lin1	-56.38	0.7368							0.9980		0.9900
Pyrene	1.2854 1.2223	1.1779 1.2193	1.1959 1.2082	1.1669 1.2223	1.2371	Ave		1.2150			0.6000	2.9		20.0			
Butyl benzyl phthalate	 0.6673	0.4918 0.6768	0.5400 0.6688	0.5766 0.6677	0.6531	Ave		0.6178			0.0100	11.6		20.0			
Bis(2-ethylhexyl) phthalate	 0.9380	0.8187 0.9566	0.8507 0.9428	0.8596 0.9451	0.9345	Ave		0.9058			0.0100	5.9		20.0			
3,3'-Dichlorobenzidine	 0.4877	0.3363 0.5069	0.3825 0.5016	0.4212 0.5061	0.4722	Ave		0.4518			0.0100	14.3		20.0			
Benzo[a]anthracene	1.1231 1.2085	1.1074 1.2509	1.0830 1.2331	1.1214 1.2349	1.1873	Ave		1.1722			0.8000	5.4		20.0			
Chrysene	1.1775 1.1719	1.1329 1.1973	1.1110 1.1887	1.1218 1.2034	1.1952	Ave		1.1666			0.7000	3.0		20.0			
Di-n-octyl phthalate	 1.6461	0.9344 1.7415	1.1137 1.7585	1.3615 1.7338	1.5823	Lin1	-54.57	1.7539			0.0100				0.9990		0.9900
Benzo[b]fluoranthene	0.9372 1.2090	1.0202 1.3271	1.0986 1.2858	1.1299 1.3076	1.1680	Ave		1.1648			0.7000	11.4		20.0			
Benzo[k]fluoranthene	0.9979 1.3248	1.0967 1.3389	1.2225 1.3561	1.2576 1.3516	1.3071	Ave		1.2504			0.7000	10.0		20.0			
Benzo[a]pyrene	0.8665 1.1675	0.9834 1.2367	1.0339 1.2507	1.0631 1.2498	1.1534	Ave		1.1117			0.7000	12.1		20.0			
Indeno[1,2,3-cd]pyrene	0.9270 1.3293	1.0884 1.3909	1.1436 1.4175	1.2407 1.4012	1.3160	Ave		1.2505			0.5000	13.4		20.0			
Dibenz(a,h)anthracene	0.7796 1.1367	0.8874 1.1863	0.9783 1.2162	1.0268 1.2185	1.1116	Ave		1.0602			0.4000	14.5		20.0			
Benzo[g,h,i]perylene	0.8244 1.0686	0.9325 1.0911	0.9891 1.0891	1.0433 1.0671	1.0582	Ave		1.0181			0.5000	8.7		20.0			
2-Fluorophenol (Surr)	 0.7950	0.8530 1.0832	0.9036 0.9415	0.9090 0.8433	0.9503	Ave		0.9099				9.6		20.0			
Phenol-d5 (Surr)	 1.5366	1.6730 1.6253	1.6755 1.6145	1.6338 1.6383	1.5512	Ave		1.6185				3.1		20.0			
Nitrobenzene-d5 (Surr)	0.3679 0.4001	0.3566 0.3929	0.3748 0.3873	0.3861 0.3828	0.4041	Ave		0.3836				4.0		20.0			
2-Fluorobiphenyl (Surr)	1.4658 1.4359	1.3862 1.4200	1.3634 1.4139	1.4220 1.4016	1.4075	Ave		1.4129				2.1		20.0			
2,4,6-Tribromophenol (Surr)	 0.1488	0.0816 0.1493	0.1064 0.1525	0.1244 0.1541	0.1430	Ave		0.1325				19.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Terphenyl-d14 (Surr)	0.8502 0.8409	0.7883 0.8790	0.8025 0.8773	0.8189 0.8916	0.8512	Ave		0.8444				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-327899/10	80522010.D
Level 2	STD2 240-327899/9	80522009.D
Level 3	STD3 240-327899/8	80522008.D
Level 4	STD4 240-327899/7	80522007.D
Level 5	STD5 240-327899/6	80522006.D
Level 6	STD6 240-327899/5	80522005.D
Level 7	STD7 240-327899/4	80522004.D
Level 8	STD8 240-327899/3	80522003.D
Level 9	STD9 240-327899/2	80522002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	103804	5398 216110	11579 245701	21331 308850	56845	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	395926	18036 647475	36398 864501	71961 1109557	214881	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	7184 632181	30716 1391128	61553 1655422	119851 2033584	343237	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	+++++ 849664	61034 1190395	112380 1448993	217636 1702516	501304	+++++ 2000	100 3000	200 4000	400 5000	1000
Phenol	DCBd 4	Ave	680007	38162 1134384	73155 1545418	141005 1965311	374800	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	1083930	49617 1632690	99076 2152865	199515 2676941	528374	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	666307	38107 1077914	74940 1433533	146422 2028497	402064	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	670693	34511 1046279	67583 1326422	129522 1624396	361563	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	536520	28197 957113	56483 1275533	114576 1604595	327189	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	651054	31847 1061825	65262 1395256	125143 1763348	352351	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	672844	34812 1066288	66343 1440484	128015 1795239	360433	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	445255	18793 678278	39247 897335	78713 1146018	224037	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	637308	33109 1024046	63763 1356418	125823 1729705	343755	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	602950	29067 925503	55727 1235183	113451 1573862	300357	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCBd 4	Ave	1050650	59128 1590157	112646 2084812	228664 2645931	579239	1000	50.0 1500	100 2000	200 2500	500
Indene	DCBd 4	Ave	2253817	122981 3535394	233282 4488447	475117 5647650	1261449	2000	100 3000	200 4000	400 5000	1000
3 & 4 Methylphenol	DCBd 4	Ave	626535	29427 948782	54278 1225615	108305 1549479	318105	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodi-n-propylamine	DCBd 4	Ave	507882	25879 776462	51220 1018872	105177 1295933	277586	1000	50.0 1500	100 2000	200 2500	500
Acetophenone	DCBd 4	Ave	904512	46213 1398638	88511 1842094	185457 2387088	489610	1000	50.0 1500	100 2000	200 2500	500
Hexachloroethane	DCBd 4	Ave	257131	13127 407999	25200 547237	49308 698054	138498	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene	NPT	Ave	730590	34908 1115520	68436 1478518	141356 1911733	388458	1000	50.0 1500	100 2000	200 2500	500
Isophorone	NPT	Ave	1294116	62497 1996394	127192 2619898	261963 3374458	695977	1000	50.0 1500	100 2000	200 2500	500
2,4-Dimethylphenol	NPT	Ave	628055	28437 946537	57685 1247015	117156 1650850	330028	1000	50.0 1500	100 2000	200 2500	500
2-Nitrophenol	NPT	Ave	317037	10881 501733	23707 679801	53432 863932	158086	1000	50.0 1500	100 2000	200 2500	500
Benzoic acid	NPT	Lin1	538690	+++++ 885617	24847 1196119	71181 1531950	246531	2000	+++++ 3000	200 4000	400 5000	1000
Bis(2-chloroethoxy)methane	NPT	Ave	803793	41056 1207082	80705 1611556	167338 2028342	429840	1000	50.0 1500	100 2000	200 2500	500
2,4-Dichlorophenol	NPT	Ave	470629	19565 712245	39647 918643	78504 1217580	231983	1000	50.0 1500	100 2000	200 2500	500
1,2,4-Trichlorobenzene	NPT	Ave	530374	25739 835458	50056 1129844	101057 1489413	273103	1000	50.0 1500	100 2000	200 2500	500
Naphthalene	NPT	Ave	19555 1975502	100541 3045988	197092 3997982	394603 5115704	1054248	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Chloroaniline	NPT	Ave	1065904	48687 1642933	97714 1977451	207886 2380413	559066	1000	50.0 1500	100 2000	200 2500	500
2,6-Dichlorophenol	NPT	Ave	480237	20314 764520	42010 1016430	88021 1349116	248762	1000	50.0 1500	100 2000	200 2500	500
Hexachlorobutadiene	NPT	Ave	269733	13228 435140	25111 585859	52037 784611	138658	1000	50.0 1500	100 2000	200 2500	500
Caprolactam	NPT	Ave	2699 425322	17490 581385	37583 877469	84216 1148705	226056	20.0 2000	100 3000	200 4000	400 5000	1000
4-Chloro-3-methylphenol	NPT	Ave	535123	20898 844049	40221 1114010	91078 1436080	270229	1000	50.0 1500	100 2000	200 2500	500
2-Methylnaphthalene	NPT	Ave	12244 1298313	65714 2024709	128098 2705522	256844 3519779	687781	10.0 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	11293 1214481	59768 1910274	118492 2554397	245173 3315045	653154	10.0 1000	50.0 1500	100 2000	200 2500	500
Hexachlorocyclopentadiene	ANT	Ave	 303950	10657 498214	22208 690165	48824 936601	146742	 1000	50.0 1500	100 2000	200 2500	500
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 499612	23455 803306	44662 1097673	91692 1460462	256540	 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Trichlorophenol	ANT	Ave	 318257	11006 511403	23911 688013	53181 909791	158931	 1000	50.0 1500	100 2000	200 2500	500
2,4,5-Trichlorophenol	ANT	Lin1	 318194	8145 529341	17156 690511	42454 959157	154248	 1000	50.0 1500	100 2000	200 2500	500
1,1'-Biphenyl	ANT	Ave	12802 1505411	75355 2347883	146234 3165219	301208 4051920	791423	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Chloronaphthalene	ANT	Ave	10045 1136319	56098 1793203	107484 2409083	221954 3161576	595310	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Nitroaniline	ANT	Ave	 384462	13190 593180	29699 777642	66178 987105	195964	 1000	50.0 1500	100 2000	200 2500	500
Dimethyl phthalate	ANT	Ave	 1277494	60841 1998511	122346 2650130	250863 3363769	669742	 1000	50.0 1500	100 2000	200 2500	500
1,3-Dinitrobenzene	ANT	Lin1	 199459	4931 318638	12382 421022	29863 554972	98600	 1000	50.0 1500	100 2000	200 2500	500
2,6-Dinitrotoluene	ANT	Ave	 289817	9533 460765	22930 608213	53595 793069	152018	 1000	50.0 1500	100 2000	200 2500	500
Acenaphthylene	ANT	Ave	13942 1692256	79328 2631111	157314 3523335	334152 4604290	890086	10.0 1000	50.0 1500	100 2000	200 2500	500
3-Nitroaniline	ANT	Ave	 294134	9454 408624	23337 515246	56258 653429	158716	 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrophenol	ANT	Lin1	 232120	+++++ 392656	11326 556060	27055 761979	108048	 2000	+++++ 3000	200 4000	400 5000	1000
4-Nitrophenol	ANT	Ave	 346685	+++++ 554207	22719 714079	56181 953869	173333	 2000	+++++ 3000	200 4000	400 5000	1000
Acenaphthene	ANT	Ave	10631 1188053	60356 1866569	118111 2456453	237466 3179019	626887	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrotoluene	ANT	Ave	 363281	11077 573419	26743 760140	63251 1020015	190262	 1000	50.0 1500	100 2000	200 2500	500
Dibenzofuran	ANT	Ave	13457 1603646	78993 2537177	154390 3393079	318378 4348604	839880	10.0 1000	50.0 1500	100 2000	200 2500	500
2,3,4,6-Tetrachlorophenol	ANT	Lin1	 223502	5232 353920	14412 494555	37410 664165	118256	 1000	50.0 1500	100 2000	200 2500	500
Hexadecane	ANT	Ave	 923991	49777 1363877	99753 1737324	206472 2153537	518546	 1000	50.0 1500	100 2000	200 2500	500
Diethyl phthalate	ANT	Ave	 1318898	67786 2032948	126936 2651202	263463 3461845	698514	 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	604738	27613 968172	55547 1290578	114362 1701678	313406	1000	50.0 1500	100 2000	200 2500	500
4-Nitroaniline	ANT	Ave	267222	11914 396943	27373 480151	59202 573208	142991	1000	50.0 1500	100 2000	200 2500	500
Fluorene	ANT	Ave	11391 1335987	61168 2109091	124299 2787805	257679 3608016	695106	10.0 1000	50.0 1500	100 2000	200 2500	500
4,6-Dinitro-2-methylphenol	PHN	Lin1	313428	6449 544752	15104 750621	41311 991667	138118	2000	100 3000	200 4000	400 5000	1000
Diphenylamine	PHN	Ave	952561	44113 1482312	91024 1966182	188248 2590438	512189	850	42.5 1275	85.0 1700	170 2125	425
N-Nitrosodiphenylamine	PHN	Ave	952561	44113 1482312	91024 1966182	188248 2590438	512189	1000	50.0 1500	100 2000	200 2500	500
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1528548	74854 2339373	154140 3021257	314174 3843148	830748	1000	50.0 1500	100 2000	200 2500	500
Azobenzene	PHN	Ave	1528480	74674 2339373	153997 3022348	314132 3843148	831206	1000	50.0 1500	100 2000	200 2500	500
4-Bromophenyl phenyl ether	PHN	Ave	329685	14756 534665	30265 723797	62748 960090	168808	1000	50.0 1500	100 2000	200 2500	500
Atrazine	PHN	Ave	5578 703468	31442 1097040	64082 1436812	127945 1859175	354248	20.0 2000	100 3000	200 4000	400 5000	1000
Hexachlorobenzene	PHN	Ave	2739 352111	15497 561666	31556 760897	64042 1029188	177143	10.0 1000	50.0 1500	100 2000	200 2500	500
n-Octadecane	PHN	Ave	978516	48418 1487307	101984 1890312	210577 2362414	545033	1000	50.0 1500	100 2000	200 2500	500
Pentachlorophenol	PHN	Lin1	338972	+++++ 580182	20238 820971	49215 1113374	158668	2000	+++++ 3000	200 4000	400 5000	1000
Phenanthrene	PHN	Ave	17937 1726225	89797 2700596	174776 3632152	358887 4802641	941058	10.0 1000	50.0 1500	100 2000	200 2500	500
Anthracene	PHN	Ave	16501 1806394	86107 2843510	174955 3806887	365276 5081813	971180	10.0 1000	50.0 1500	100 2000	200 2500	500
Carbazole	PHN	Ave	1582300	79608 2477057	161855 3304480	319314 4382384	835704	1000	50.0 1500	100 2000	200 2500	500
Di-n-butyl phthalate	PHN	Ave	2219247	104457 3363937	213460 4460259	427623 5918563	1169331	1000	50.0 1500	100 2000	200 2500	500
Fluoranthene	PHN	Ave	15003 1781919	82832 2780463	165210 3772996	329964 5038659	914941	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzidine	CRY	Lin1	2138885	40009 3439055	104895 4530006	290083 5928862	1039818	2000	100 3000	200 4000	400 5000	1000
Pyrene	CRY	Ave	16215 1786514	80247 2803198	165248 3807189	331261 5124600	932837	10.0 1000	50.0 1500	100 2000	200 2500	500
Butyl benzyl phthalate	CRY	Ave	975280	33506 1555940	74620 2107384	163685 2799335	492447	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1371012	55777 2199378	117559 2970910	244028 3962214	704661	1000	50.0 1500	100 2000	200 2500	500
3,3'-Dichlorobenzidine	CRY	Ave	1425585	45824 2330835	105721 3161273	239165 4243908	712066	2000	100 3000	200 4000	400 5000	1000
Benzo[a]anthracene	CRY	Ave	14168 1766254	75445 2875851	149655 3885451	318348 5177282	895273	10.0 1000	50.0 1500	100 2000	200 2500	500
Chrysene	CRY	Ave	14854 1712801	77186 2752722	153526 3745780	318446 5045317	901207	10.0 1000	50.0 1500	100 2000	200 2500	500
Di-n-octyl phthalate	PRY	Lin1	2254598	60540 3694052	140664 5078357	350943 6764981	1107832	1000	50.0 1500	100 2000	200 2500	500
Benzo[b]fluoranthene	PRY	Ave	11395 1655916	66102 2815009	138763 3713345	291250 5102220	817779	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[k]fluoranthene	PRY	Ave	12133 1814562	71056 2840035	154413 3916185	324161 5273894	915159	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[a]pyrene	PRY	Ave	10536 1599064	63720 2623429	130591 3611876	274044 4876541	807510	10.0 1000	50.0 1500	100 2000	200 2500	500
Indeno[1,2,3-cd]pyrene	PRY	Ave	11271 1820668	70523 2950405	144441 4093393	319816 5467390	921352	10.0 1000	50.0 1500	100 2000	200 2500	500
Dibenz(a,h)anthracene	PRY	Ave	9479 1556859	57497 2516471	123560 3512205	264677 4754431	778268	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[g,h,i]perylene	PRY	Ave	10023 1463622	60419 2314445	124923 3145063	268935 4163726	740884	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorophenol (Surr)	DCBd 4	Ave	313857	16997 678857	35435 809267	68760 901970	200963	1000	50.0 1500	100 2000	200 2500	500
Phenol-d5 (Surr)	DCBd 4	Ave	606639	33336 1018554	65704 1387692	123586 1752324	328033	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene-d5 (Surr)	NPT	Ave	6394 721898	33396 1112670	66527 1457938	137369 1888112	379256	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorobiphenyl (Surr)	ANT	Ave	11762 1275352	62914 1983974	121661 2639958	252334 3471801	662837	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Tribromophenol (Surr)	ANT	Ave	132133	3705 208552	9498 284667	22067 381842	67335	1000	50.0 1500	100 2000	200 2500	500
Terphenyl-d14 (Surr)	CRY	Ave	10725 1228984	53707 2020931	110895 2764473	232479 3737946	641848	10.0 1000	50.0 1500	100 2000	200 2500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2800		0.974	1.00	-2.6	30.0
N-Nitrosodimethylamine	Ave	0.9850	0.9837		0.999	1.00	-0.1	30.0
Pyridine	Ave	0.8850	0.8585		1.94	2.00	-3.0	30.0
Benzaldehyde	Qua		1.058	0.0100	2.03	2.00	1.3	30.0
Phenol	Ave	1.823	1.822	0.8000	1.00	1.00	-0.0	30.0
Aniline	Ave	2.564	2.830		1.10	1.00	10.4	30.0
Bis(2-chloroethyl)ether	Ave	1.829	1.701	0.7000	0.930	1.00	-7.0	30.0
2-Chlorophenol	Ave	1.473	1.472	0.8000	0.999	1.00	-0.1	30.0
n-Decane	Ave	1.663	1.639		0.985	1.00	-1.5	30.0
1,3-Dichlorobenzene	Ave	1.650	1.586		0.962	1.00	-3.8	30.0
1,4-Dichlorobenzene	Ave	1.699	1.643		0.967	1.00	-3.3	30.0
Benzyl alcohol	Ave	1.046	1.068		1.02	1.00	2.1	30.0
1,2-Dichlorobenzene	Ave	1.628	1.614		0.992	1.00	-0.8	30.0
2-Methylphenol	Ave	1.464	1.474	0.7000	1.01	1.00	0.7	30.0
bis (2-chloroisopropyl) ether	Ave	2.712	2.620		0.966	1.00	-3.4	30.0
Indene	Ave	2.889	2.759		1.91	2.00	-4.5	30.0
3 & 4 Methylphenol	Ave	1.472	1.508		1.02	1.00	2.5	30.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.296	0.5000	1.01	1.00	1.3	30.0
Acetophenone	Ave	2.280	2.264	0.0100	0.993	1.00	-0.7	30.0
Hexachloroethane	Ave	0.6500	0.6276	0.3000	0.965	1.00	-3.5	30.0
Nitrobenzene	Ave	0.3936	0.3981	0.2000	1.01	1.00	1.1	30.0
Isophorone	Ave	0.7080	0.7240	0.4000	1.02	1.00	2.3	30.0
2,4-Dimethylphenol	Ave	0.3322	0.3271	0.2000	0.985	1.00	-1.5	30.0
2-Nitrophenol	Ave	0.1596	0.1618	0.1000	1.01	1.00	1.4	30.0
Benzoic acid	Lin1		0.1320		1.77	2.00	-11.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4365	0.3000	0.989	1.00	-1.1	30.0
2,4-Dichlorophenol	Ave	0.2379	0.2382	0.2000	1.00	1.00	0.1	30.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2805		0.966	1.00	-3.4	30.0
Naphthalene	Ave	1.090	1.060	0.7000	0.973	1.00	-2.7	30.0
4-Chloroaniline	Ave	0.5537	0.5781	0.0100	1.04	1.00	4.4	30.0
2,6-Dichlorophenol	Ave	0.2557	0.2582		1.01	1.00	1.0	30.0
Hexachlorobutadiene	Ave	0.1493	0.1480	0.0100	0.991	1.00	-0.9	30.0
Caprolactam	Ave	0.1077	0.1115	0.0100	2.07	2.00	3.6	30.0
4-Chloro-3-methylphenol	Ave	0.2719	0.2917	0.2000	1.07	1.00	7.3	30.0
2-Methylnaphthalene	Ave	0.7166	0.6987	0.4000	0.975	1.00	-2.5	30.0
1-Methylnaphthalene	Ave	0.6710	0.6618		0.986	1.00	-1.4	30.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3526	0.0500	1.12	1.00	12.1	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5405	0.0100	0.984	1.00	-1.6	30.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3428	0.2000	1.05	1.00	5.2	30.0
2,4,5-Trichlorophenol	Lin1		0.3566	0.2000	0.974	1.00	-2.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.659	0.0100	0.997	1.00	-0.3	30.0
2-Chloronaphthalene	Ave	1.260	1.252	0.8000	0.994	1.00	-0.6	30.0
2-Nitroaniline	Ave	0.3856	0.4274	0.0100	1.11	1.00	10.8	30.0
Dimethyl phthalate	Ave	1.399	1.377	0.0100	0.984	1.00	-1.6	30.0
1,3-Dinitrobenzene	Lin1		0.2068		0.937	1.00	-6.3	30.0
2,6-Dinitrotoluene	Ave	0.2992	0.3125		1.04	1.00	4.4	30.0
Acenaphthylene	Ave	1.840	2.015	0.9000	1.10	1.00	9.6	30.0
3-Nitroaniline	Ave	0.2859	0.3001	0.0100	1.05	1.00	5.0	30.0
2,4-Dinitrophenol	Lin1		0.1216	0.0100	1.76	2.00	-12.2	30.0
4-Nitrophenol	Ave	0.1781	0.1862		2.09	2.00	4.5	30.0
Acenaphthene	Ave	1.324	1.308	0.9000	0.987	1.00	-1.3	30.0
2,4-Dinitrotoluene	Ave	0.3678	0.3852	0.2000	1.05	1.00	4.7	30.0
Dibenzofuran	Ave	1.769	1.750	0.8000	0.990	1.00	-1.0	30.0
2,3,4,6-Tetrachlorophenol	Lin1		0.2419	0.0100	0.941	1.00	-5.9	30.0
Hexadecane	Ave	1.037	1.039		1.00	1.00	0.2	30.0
Diethyl phthalate	Ave	1.455	1.430	0.0100	0.982	1.00	-1.8	30.0
4-Chlorophenyl phenyl ether	Ave	0.6616	0.6364	0.4000	0.962	1.00	-3.8	30.0
4-Nitroaniline	Ave	0.2850	0.2772	0.0100	0.973	1.00	-2.7	30.0
Fluorene	Ave	1.450	1.465	0.9000	1.01	1.00	1.0	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1141	0.0100	2.01	2.00	0.5	30.0
Diphenylamine	Ave	0.7211	0.7395		0.872	0.850	2.6	30.0
N-Nitrosodiphenylamine	Ave	0.6129	0.6286	0.0100	1.03	1.00	2.6	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9853	1.038		1.05	1.00	5.4	30.0
Azobenzene	Ave	0.9850	1.037		1.05	1.00	5.3	30.0
4-Bromophenyl phenyl ether	Ave	0.2130	0.2140	0.1000	1.00	1.00	0.5	30.0
Atrazine	Ave	0.2156	0.2307	0.0100	2.14	2.00	7.0	30.0
Hexachlorobenzene	Ave	0.2195	0.2332	0.1000	1.06	1.00	6.2	30.0
n-Octadecane	Ave	0.6346	0.6710		1.06	1.00	5.7	30.0
Pentachlorophenol	Lin1		0.1177	0.0500	1.90	2.00	-5.0	30.0
Phenanthrene	Ave	1.156	1.135	0.7000	0.982	1.00	-1.8	30.0
Anthracene	Ave	1.173	1.176	0.7000	1.00	1.00	0.2	30.0
Carbazole	Ave	1.041	0.996	0.0100	0.956	1.00	-4.4	30.0
Di-n-butyl phthalate	Ave	1.410	1.471	0.0100	1.04	1.00	4.3	30.0
Fluoranthene	Ave	1.123	1.183	0.6000	1.05	1.00	5.3	30.0
Benzidine	Lin1		0.5903		1.68	2.00	-16.1	30.0
Pyrene	Ave	1.215	1.197	0.6000	0.985	1.00	-1.5	30.0
Butyl benzyl phthalate	Ave	0.6178	0.6494	0.0100	1.05	1.00	5.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.9058	0.9114	0.0100	1.01	1.00	0.6	30.0
3,3'-Dichlorobenzidine	Ave	0.4518	0.3732	0.0100	1.65	2.00	-17.4	30.0
Benzo[a]anthracene	Ave	1.172	1.171	0.8000	0.999	1.00	-0.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.167	1.138	0.7000	0.975	1.00	-2.5	30.0
Di-n-octyl phthalate	Lin1		1.600	0.0100	0.944	1.00	-5.6	30.0
Benzo[b]fluoranthene	Ave	1.165	1.194	0.7000	1.02	1.00	2.5	30.0
Benzo[k]fluoranthene	Ave	1.250	1.311	0.7000	1.05	1.00	4.8	30.0
Benzo[a]pyrene	Ave	1.112	1.169	0.7000	1.05	1.00	5.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.251	1.271	0.5000	1.02	1.00	1.6	30.0
Dibenz(a,h)anthracene	Ave	1.060	1.104	0.4000	1.04	1.00	4.1	30.0
Benzo[g,h,i]perylene	Ave	1.018	0.997	0.5000	0.980	1.00	-2.0	30.0
2-Fluorophenol (Surr)	Ave	0.9099	0.9492		1.04	1.00	4.3	30.0
Phenol-d5 (Surr)	Ave	1.619	1.690		1.04	1.00	4.4	30.0
Nitrobenzene-d5 (Surr)	Ave	0.3836	0.4028		1.05	1.00	5.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.413	1.455		1.03	1.00	2.9	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1325	0.1460		1.10	1.00	10.2	30.0
Terphenyl-d14 (Surr)	Ave	0.8444	0.8699		1.03	1.00	3.0	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: 80528001.D DFTPP Injection Date: 05/28/2018

Instrument ID: A4AG2 DFTPP Injection Time: 07:31

Analysis Batch No.: 328811

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.9	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.7	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	27.8	
365	Greater than 0.75% of mass 198	3.1	
441	Present, but less than mass 443	9.4	
442	40.0 - 110.0% of mass 198	63.6	
443	15.0 - 24.0% of mass 442	12.3	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-328811/2	80528002.D	05/28/2018	07:49
	MB 240-328327/23-A	80528004.D	05/28/2018	08:40
	LCS 240-328327/24-A	80528005.D	05/28/2018	09:05
MSA-MW-22D-052118	240-96003-2	80528010.D	05/28/2018	11:10
MSA-MW-22D-052118 MS	240-96003-2 MS	80528011.D	05/28/2018	11:35
MSA-MW-22D-052118 MSD	240-96003-2 MSD	80528012.D	05/28/2018	12:00
MSA-MW-26S-052118	240-96003-3	80528013.D	05/28/2018	12:25
MSA-MW-42S-052118	240-96003-4	80528017.D	05/28/2018	14:06
MSA-MW-42I-052118	240-96003-5	80528018.D	05/28/2018	14:31
MSA-MW-23S-052218	240-96003-6	80528019.D	05/28/2018	14:56
MSA-MW-23D-052218	240-96003-7	80528020.D	05/28/2018	15:21

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-328811/2 | Calibration Date: 05/28/2018 07:49

Instrument ID: A4AG2 | Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/22/2018 10:20

Lab File ID: 80528002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2663		0.926	1.00	-7.4	20.0
N-Nitrosodimethylamine	Ave	0.9850	0.9485		0.963	1.00	-3.7	20.0
Pyridine	Ave	0.8850	0.8069		1.82	2.00	-8.8	20.0
Benzaldehyde	Qua		1.195	0.0100	2.36	2.00	18.2	20.0
Phenol	Ave	1.823	1.113	0.8000	0.611	1.00	-38.9*	20.0
Aniline	Ave	2.564	2.462		0.960	1.00	-4.0	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.033	0.7000	1.11	1.00	11.2	20.0
2-Chlorophenol	Ave	1.473	1.516	0.8000	1.03	1.00	2.9	20.0
n-Decane	Ave	1.663	1.629		0.979	1.00	-2.1	20.0
1,3-Dichlorobenzene	Ave	1.650	1.631		0.989	1.00	-1.1	20.0
1,4-Dichlorobenzene	Ave	1.699	1.719		1.01	1.00	1.1	20.0
Benzyl alcohol	Ave	1.046	0.8837		0.845	1.00	-15.5	20.0
1,2-Dichlorobenzene	Ave	1.628	1.729		1.06	1.00	6.2	20.0
2-Methylphenol	Ave	1.464	1.103	0.7000	0.754	1.00	-24.6*	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.195		1.18	1.00	17.8	20.0
Indene	Ave	2.889	3.327		2.30	2.00	15.2	20.0
3 & 4 Methylphenol	Ave	1.472	1.015		0.689	1.00	-31.1*	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.501	0.5000	1.17	1.00	17.3	20.0
Acetophenone	Ave	2.280	2.635	0.0100	1.16	1.00	15.6	20.0
Hexachloroethane	Ave	0.6500	0.6910	0.3000	1.06	1.00	6.3	20.0
Nitrobenzene	Ave	0.3936	0.4136	0.2000	1.05	1.00	5.1	20.0
Isophorone	Ave	0.7080	0.7297	0.4000	1.03	1.00	3.1	20.0
2,4-Dimethylphenol	Ave	0.3322	0.2850	0.2000	0.858	1.00	-14.2	20.0
2-Nitrophenol	Ave	0.1596	0.1976	0.1000	1.24	1.00	23.8*	20.0
Benzoic acid	Lin1		0.1974		2.58	2.00	29.1*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4523	0.3000	1.02	1.00	2.4	20.0
2,4-Dichlorophenol	Ave	0.2379	0.1839*	0.2000	0.773	1.00	-22.7*	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2849		0.981	1.00	-1.9	20.0
Naphthalene	Ave	1.090	1.109	0.7000	1.02	1.00	1.7	20.0
4-Chloroaniline	Ave	0.5537	0.5835	0.0100	1.05	1.00	5.4	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2610		1.02	1.00	2.1	20.0
Hexachlorobutadiene	Ave	0.1493	0.1542	0.0100	1.03	1.00	3.3	20.0
Caprolactam	Ave	0.1077	0.1183	0.0100	2.20	2.00	9.8	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.3063	0.2000	1.13	1.00	12.7	20.0
2-Methylnaphthalene	Ave	0.7166	0.7386	0.4000	1.03	1.00	3.1	20.0
1-Methylnaphthalene	Ave	0.6710	0.6919		1.03	1.00	3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3578	0.0500	1.14	1.00	13.7	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5636	0.0100	1.03	1.00	2.6	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3793	0.2000	1.16	1.00	16.4	20.0
2,4,5-Trichlorophenol	Lin1		0.3657	0.2000	0.998	1.00	-0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-328811/2 Calibration Date: 05/28/2018 07:49

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80528002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.674	0.0100	1.01	1.00	0.6	20.0
2-Chloronaphthalene	Ave	1.260	1.264	0.8000	1.00	1.00	0.4	20.0
2-Nitroaniline	Ave	0.3856	0.4414	0.0100	1.14	1.00	14.5	20.0
Dimethyl phthalate	Ave	1.399	1.401	0.0100	1.00	1.00	0.1	20.0
1,3-Dinitrobenzene	Lin1		0.2304		1.04	1.00	4.0	20.0
2,6-Dinitrotoluene	Ave	0.2992	0.3275		1.09	1.00	9.5	20.0
Acenaphthylene	Ave	1.840	1.842	0.9000	1.00	1.00	0.1	20.0
3-Nitroaniline	Ave	0.2859	0.3374	0.0100	1.18	1.00	18.0	20.0
2,4-Dinitrophenol	Lin1		0.1746	0.0100	2.45	2.00	22.7*	20.0
Acenaphthene	Ave	1.324	1.335	0.9000	1.01	1.00	0.8	20.0
4-Nitrophenol	Ave	0.1781	0.2028		2.28	2.00	13.9	20.0
2,4-Dinitrotoluene	Ave	0.3678	0.4059	0.2000	1.10	1.00	10.4	20.0
Dibenzofuran	Ave	1.769	1.775	0.8000	1.00	1.00	0.4	20.0
2,3,4,6-Tetrachlorophenol	Lin1		0.2803	0.0100	1.08	1.00	8.5	20.0
Hexadecane	Ave	1.037	1.039		1.00	1.00	0.2	20.0
Diethyl phthalate	Ave	1.455	1.447	0.0100	0.994	1.00	-0.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6616	0.6644	0.4000	1.00	1.00	0.4	20.0
4-Nitroaniline	Ave	0.2850	0.3129	0.0100	1.10	1.00	9.8	20.0
Fluorene	Ave	1.450	1.488	0.9000	1.03	1.00	2.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1324	0.0100	2.31	2.00	15.7	20.0
Diphenylamine	Ave	0.7211	0.7556		0.891	0.850	4.8	20.0
N-Nitrosodiphenylamine	Ave	0.6129	0.6422	0.0100	1.05	1.00	4.8	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9853	1.024		1.04	1.00	4.0	20.0
Azobenzene	Ave	0.9850	1.024		1.04	1.00	4.0	20.0
4-Bromophenyl phenyl ether	Ave	0.2130	0.2281	0.1000	1.07	1.00	7.1	20.0
Atrazine	Ave	0.2156	0.2405	0.0100	2.23	2.00	11.5	20.0
Hexachlorobenzene	Ave	0.2195	0.2470	0.1000	1.13	1.00	12.5	20.0
n-Octadecane	Ave	0.6346	0.6605		1.04	1.00	4.1	20.0
Pentachlorophenol	Lin1		0.1376	0.0500	2.20	2.00	9.8	20.0
Phenanthrene	Ave	1.156	1.172	0.7000	1.01	1.00	1.4	20.0
Anthracene	Ave	1.173	1.228	0.7000	1.05	1.00	4.7	20.0
Carbazole	Ave	1.041	1.086	0.0100	1.04	1.00	4.3	20.0
Di-n-butyl phthalate	Ave	1.410	1.436	0.0100	1.02	1.00	1.8	20.0
Fluoranthene	Ave	1.123	1.204	0.6000	1.07	1.00	7.2	20.0
Benzidine	Lin1		0.6481		1.84	2.00	-8.2	20.0
Pyrene	Ave	1.215	1.231	0.6000	1.01	1.00	1.3	20.0
Butyl benzyl phthalate	Ave	0.6178	0.6606	0.0100	1.07	1.00	6.9	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9058	0.9060	0.0100	1.00	1.00	0.0	20.0
3,3'-Dichlorobenzidine	Ave	0.4518	0.4368	0.0100	1.93	2.00	-3.3	20.0
Benzo[a]anthracene	Ave	1.172	1.208	0.8000	1.03	1.00	3.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-328811/2 | Calibration Date: 05/28/2018 07:49

Instrument ID: A4AG2 | Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/22/2018 10:20

Lab File ID: 80528002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.167	1.173	0.7000	1.01	1.00	0.6	20.0
Di-n-octyl phthalate	Lin1		1.655	0.0100	0.975	1.00	-2.5	20.0
Benzo[b]fluoranthene	Ave	1.165	1.218	0.7000	1.05	1.00	4.6	20.0
Benzo[k]fluoranthene	Ave	1.250	1.296	0.7000	1.04	1.00	3.6	20.0
Benzo[a]pyrene	Ave	1.112	1.186	0.7000	1.07	1.00	6.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.251	1.371	0.5000	1.10	1.00	9.7	20.0
Dibenz(a,h)anthracene	Ave	1.060	1.164	0.4000	1.10	1.00	9.8	20.0
Benzo[g,h,i]perylene	Ave	1.018	1.087	0.5000	1.07	1.00	6.7	20.0
2-Fluorophenol (Surr)	Ave	0.9099	0.8516		0.936	1.00	-6.4	20.0
Phenol-d5 (Surr)	Ave	1.619	1.007		0.622	1.00	-37.8*	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3836	0.4052		1.06	1.00	5.6	20.0
2-Fluorobiphenyl (Surr)	Ave	1.413	1.437		1.02	1.00	1.7	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1325	0.1635		1.23	1.00	23.4*	20.0
Terphenyl-d14 (Surr)	Ave	0.8444	0.8361		0.990	1.00	-1.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab File ID: 80530001.D DFTPP Injection Date: 05/30/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:30

Analysis Batch No.: 329083

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.6	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.6	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	27.9	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	65.9	
443	15.0 - 24.0% of mass 442	12.9	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-329083/2	80530002.D	05/30/2018	06:54
MSA-MW-41S-052218	240-96003-8	80530008.D	05/30/2018	09:25
MSA-MW-41I-052218	240-96003-9	80530009.D	05/30/2018	09:49

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-329083/2 Calibration Date: 05/30/2018 06:54

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80530002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2669		0.929	1.00	-7.1	20.0
N-Nitrosodimethylamine	Ave	0.9850	1.109		1.13	1.00	12.6	20.0
Pyridine	Ave	0.8850	0.8552		1.93	2.00	-3.4	20.0
Benzaldehyde	Qua		1.205	0.0100	2.39	2.00	19.5	20.0
Phenol	Ave	1.823	1.790	0.8000	0.982	1.00	-1.8	20.0
Aniline	Ave	2.564	2.811		1.10	1.00	9.6	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.137	0.7000	1.17	1.00	16.8	20.0
n-Decane	Ave	1.663	1.761		1.06	1.00	5.9	20.0
2-Chlorophenol	Ave	1.473	1.602	0.8000	1.09	1.00	8.8	20.0
1,3-Dichlorobenzene	Ave	1.650	1.641		0.994	1.00	-0.6	20.0
1,4-Dichlorobenzene	Ave	1.699	1.723		1.01	1.00	1.4	20.0
Benzyl alcohol	Ave	1.046	1.022		0.977	1.00	-2.3	20.0
1,2-Dichlorobenzene	Ave	1.628	1.726		1.06	1.00	6.1	20.0
2-Methylphenol	Ave	1.464	1.527	0.7000	1.04	1.00	4.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.192		1.18	1.00	17.7	20.0
Indene	Ave	2.889	3.269		2.26	2.00	13.2	20.0
3 & 4 Methylphenol	Ave	1.472	1.416		0.962	1.00	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.453	0.5000	1.14	1.00	13.6	20.0
Acetophenone	Ave	2.280	2.500	0.0100	1.10	1.00	9.6	20.0
Hexachloroethane	Ave	0.6500	0.7038	0.3000	1.08	1.00	8.3	20.0
Nitrobenzene	Ave	0.3936	0.4268	0.2000	1.08	1.00	8.4	20.0
Isophorone	Ave	0.7080	0.7611	0.4000	1.07	1.00	7.5	20.0
2,4-Dimethylphenol	Ave	0.3322	0.2986	0.2000	0.899	1.00	-10.1	20.0
2-Nitrophenol	Ave	0.1596	0.1882	0.1000	1.18	1.00	17.9	20.0
Benzoic acid	Lin1		0.1561		2.07	2.00	3.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4650	0.3000	1.05	1.00	5.3	20.0
2,4-Dichlorophenol	Ave	0.2379	0.2060	0.2000	0.866	1.00	-13.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2902		0.999	1.00	-0.0	20.0
Naphthalene	Ave	1.090	1.111	0.7000	1.02	1.00	2.0	20.0
4-Chloroaniline	Ave	0.5537	0.5951	0.0100	1.07	1.00	7.5	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2530		0.989	1.00	-1.1	20.0
Hexachlorobutadiene	Ave	0.1493	0.1467	0.0100	0.983	1.00	-1.7	20.0
Caprolactam	Ave	0.1077	0.1085	0.0100	2.01	2.00	0.7	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.2981	0.2000	1.10	1.00	9.6	20.0
2-Methylnaphthalene	Ave	0.7166	0.7421	0.4000	1.04	1.00	3.6	20.0
1-Methylnaphthalene	Ave	0.6710	0.7007		1.04	1.00	4.4	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3193	0.0500	1.01	1.00	1.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5542	0.0100	1.01	1.00	0.9	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3648	0.2000	1.12	1.00	11.9	20.0
2,4,5-Trichlorophenol	Lin1		0.3559	0.2000	0.972	1.00	-2.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-329083/2 Calibration Date: 05/30/2018 06:54

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80530002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.750	0.0100	1.05	1.00	5.2	20.0
2-Chloronaphthalene	Ave	1.260	1.299	0.8000	1.03	1.00	3.1	20.0
2-Nitroaniline	Ave	0.3856	0.4638	0.0100	1.20	1.00	20.3*	20.0
Dimethyl phthalate	Ave	1.399	1.412	0.0100	1.01	1.00	0.9	20.0
1,3-Dinitrobenzene	Lin1		0.2208		0.998	1.00	-0.2	20.0
2,6-Dinitrotoluene	Ave	0.2992	0.3219		1.08	1.00	7.6	20.0
Acenaphthylene	Ave	1.840	1.894	0.9000	1.03	1.00	2.9	20.0
3-Nitroaniline	Ave	0.2859	0.3190	0.0100	1.12	1.00	11.6	20.0
2,4-Dinitrophenol	Lin1		0.1453	0.0100	2.07	2.00	3.4	20.0
4-Nitrophenol	Ave	0.1781	0.2049		2.30	2.00	15.0	20.0
Acenaphthene	Ave	1.324	1.382	0.9000	1.04	1.00	4.3	20.0
2,4-Dinitrotoluene	Ave	0.3678	0.3871	0.2000	1.05	1.00	5.2	20.0
Dibenzofuran	Ave	1.769	1.795	0.8000	1.01	1.00	1.5	20.0
2,3,4,6-Tetrachlorophenol	Lin1		0.2641	0.0100	1.02	1.00	2.4	20.0
Hexadecane	Ave	1.037	1.136		1.10	1.00	9.5	20.0
Diethyl phthalate	Ave	1.455	1.453	0.0100	0.998	1.00	-0.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.6616	0.6551	0.4000	0.990	1.00	-1.0	20.0
4-Nitroaniline	Ave	0.2850	0.3226	0.0100	1.13	1.00	13.2	20.0
Fluorene	Ave	1.450	1.508	0.9000	1.04	1.00	4.0	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1207	0.0100	2.12	2.00	5.9	20.0
Diphenylamine	Ave	0.7211	0.7833		0.923	0.850	8.6	20.0
N-Nitrosodiphenylamine	Ave	0.6129	0.6658	0.0100	1.09	1.00	8.6	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9853	1.125		1.14	1.00	14.2	20.0
Azobenzene	Ave	0.9850	1.125		1.14	1.00	14.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2130	0.2271	0.1000	1.07	1.00	6.6	20.0
Atrazine	Ave	0.2156	0.2511	0.0100	2.33	2.00	16.5	20.0
Hexachlorobenzene	Ave	0.2195	0.2284	0.1000	1.04	1.00	4.1	20.0
n-Octadecane	Ave	0.6346	0.7456		1.17	1.00	17.5	20.0
Pentachlorophenol	Lin1		0.1307	0.0500	2.09	2.00	4.6	20.0
Phenanthrene	Ave	1.156	1.193	0.7000	1.03	1.00	3.2	20.0
Anthracene	Ave	1.173	1.243	0.7000	1.06	1.00	6.0	20.0
Carbazole	Ave	1.041	1.038	0.0100	0.997	1.00	-0.3	20.0
Di-n-butyl phthalate	Ave	1.410	1.537	0.0100	1.09	1.00	9.0	20.0
Fluoranthene	Ave	1.123	1.271	0.6000	1.13	1.00	13.1	20.0
Benzidine	Lin1		0.5175		1.48	2.00	-25.9*	20.0
Pyrene	Ave	1.215	1.367	0.6000	1.12	1.00	12.5	20.0
Butyl benzyl phthalate	Ave	0.6178	0.6769	0.0100	1.10	1.00	9.6	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.9058	0.9390	0.0100	1.04	1.00	3.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4518	0.4190	0.0100	1.85	2.00	-7.3	20.0
Benzo[a]anthracene	Ave	1.172	1.227	0.8000	1.05	1.00	4.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: STD6 240-329083/2 Calibration Date: 05/30/2018 06:54

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80530002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.167	1.188	0.7000	1.02	1.00	1.8	20.0
Di-n-octyl phthalate	Lin1		1.725	0.0100	1.01	1.00	1.5	20.0
Benzo[b]fluoranthene	Ave	1.165	1.254	0.7000	1.08	1.00	7.7	20.0
Benzo[k]fluoranthene	Ave	1.250	1.305	0.7000	1.04	1.00	4.4	20.0
Benzo[a]pyrene	Ave	1.112	1.180	0.7000	1.06	1.00	6.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.251	1.302	0.5000	1.04	1.00	4.1	20.0
Dibenz(a,h)anthracene	Ave	1.060	1.114	0.4000	1.05	1.00	5.1	20.0
Benzo[g,h,i]perylene	Ave	1.018	1.037	0.5000	1.02	1.00	1.8	20.0
2-Fluorophenol (Surr)	Ave	0.9099	0.8343		0.917	1.00	-8.3	20.0
Phenol-d5 (Surr)	Ave	1.619	1.611		0.995	1.00	-0.5	20.0
Nitrobenzene-d5 (Surr)	Ave	0.3836	0.4214		1.10	1.00	9.8	20.0
2-Fluorobiphenyl (Surr)	Ave	1.413	1.443		1.02	1.00	2.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1325	0.1477		1.11	1.00	11.4	20.0
Terphenyl-d14 (Surr)	Ave	0.8444	0.8722		1.03	1.00	3.3	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		157920	6.85	721640	7.92	355264	9.41
UPPER LIMIT		315840	7.35	1443280	8.42	710528	9.91
LOWER LIMIT		78960	6.35	360820	7.42	177632	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		164461	6.85	767073	7.92	379963	9.42
STD6 240-328811/2 CCVIS		145455	6.80	755263	7.87	383800	9.37
STD6 240-329083/2 CCVIS		163319	6.86	792620	7.92	388503	9.42

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		593380	10.70	584623	13.65	547873	16.03
UPPER LIMIT		1186760	11.20	1169246	14.15	1095746	16.53
LOWER LIMIT		296690	10.20	292312	13.15	273937	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		625512	10.70	619445	13.66	556290	16.04
STD6 240-328811/2 CCVIS		625602	10.65	609975	13.58	562274	15.93
STD6 240-329083/2 CCVIS		613040	10.70	570621	13.67	508046	16.05

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-328811/2 Date Analyzed: 05/28/2018 07:49

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80528002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		145455	6.80	755263	7.87	383800	9.37
UPPER LIMIT		290910	7.30	1510526	8.37	767600	9.87
LOWER LIMIT		72728	6.30	377632	7.37	191900	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-328327/23-A		134903	6.80	738815	7.87	289660	9.37
LCS 240-328327/24-A		124748	6.80	656983	7.87	350350	9.37
240-96003-2	MSA-MW-22D-052118	114614	6.80	614906	7.87	261116	9.37
240-96003-2 MS	MSA-MW-22D-052118 MS	112622	6.80	664978	7.87	356747	9.37
240-96003-2 MSD	MSA-MW-22D-052118 MSD	127955	6.80	673950	7.87	382163	9.37
240-96003-3	MSA-MW-26S-052118	116307	6.80	661381	7.87	271883	9.37
240-96003-4	MSA-MW-42S-052118	109684	6.80	691510	7.87	415112	9.37
240-96003-5	MSA-MW-42I-052118	118053	6.80	707423	7.87	360354	9.37
240-96003-6	MSA-MW-23S-052218	118863	6.80	730093	7.87	387544	9.37
240-96003-7	MSA-MW-23D-052218	131288	6.80	679196	7.87	280729	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-328811/2 Date Analyzed: 05/28/2018 07:49

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80528002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		625602	10.65	609975	13.58	562274	15.93
UPPER LIMIT		1251204	11.15	1219950	14.08	1124548	16.43
LOWER LIMIT		312801	10.15	304988	13.08	281137	15.43
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-328327/23-A		747390	10.65	612668	13.57	587767	15.93
LCS 240-328327/24-A		613930	10.65	618882	13.57	549932	15.93
240-96003-2	MSA-MW-22D-052118	702182	10.65	598297	13.57	575509	15.93
240-96003-2 MS	MSA-MW-22D-052118 MS	659220	10.65	689786	13.58	609046	15.93
240-96003-2 MSD	MSA-MW-22D-052118 MSD	685136	10.65	684651	13.58	612946	15.93
240-96003-3	MSA-MW-26S-052118	729650	10.65	621285	13.57	582755	15.93
240-96003-4	MSA-MW-42S-052118	806925	10.65	718623	13.57	674540	15.93
240-96003-5	MSA-MW-42I-052118	760024	10.65	643898	13.57	636508	15.93
240-96003-6	MSA-MW-23S-052218	771837	10.65	689006	13.57	630713	15.93
240-96003-7	MSA-MW-23D-052218	736048	10.65	629776	13.57	608958	15.93

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-329083/2 Date Analyzed: 05/30/2018 06:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80530002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		163319	6.86	792620	7.92	388503	9.42
UPPER LIMIT		326638	7.36	1585240	8.42	777006	9.92
LOWER LIMIT		81660	6.36	396310	7.42	194252	8.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96003-8	MSA-MW-41S-052218	140113	6.86	720399	7.92	342202	9.42
240-96003-9	MSA-MW-41I-052218	144642	6.86	745585	7.92	342900	9.42

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD6 240-329083/2 Date Analyzed: 05/30/2018 06:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80530002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		613040	10.70	570621	13.67	508046	16.05
UPPER LIMIT		1226080	11.20	1141242	14.17	1016092	16.55
LOWER LIMIT		306520	10.20	285311	13.17	254023	15.55
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96003-8	MSA-MW-41S-052218	738650	10.70	594762	13.66	551153	16.05
240-96003-9	MSA-MW-41I-052218	731944	10.70	583423	13.66	530019	16.05

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A4AG2 Start Date: 05/22/2018 06:44

Analysis Batch Number: 327899 End Date: 05/22/2018 18:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-327899/1		05/22/2018 06:44	1	80522001.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/2 IC		05/22/2018 07:02	1	80522002.D	RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/3 IC		05/22/2018 07:26	1	80522003.D	RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/4 IC		05/22/2018 07:51	1	80522004.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/5 ICIS		05/22/2018 08:16	1	80522005.D	RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/6 IC		05/22/2018 08:41	1	80522006.D	RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/7 IC		05/22/2018 09:06	1	80522007.D	RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/8 IC		05/22/2018 09:31	1	80522008.D	RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/9 IC		05/22/2018 09:55	1	80522009.D	RXI-5SILMS/IIG 0.25(mm)
STD1 240-327899/10 IC		05/22/2018 10:20	1	80522010.D	RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/11		05/22/2018 10:45	1	80522011.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/12 IC		05/22/2018 11:10	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/13 IC		05/22/2018 11:35	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/14 IC		05/22/2018 12:00	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/15 IC		05/22/2018 12:24	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/16 IC		05/22/2018 12:49	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/17 IC		05/22/2018 13:14	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/18 IC		05/22/2018 13:39	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/19 IC		05/22/2018 14:04	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/20		05/22/2018 14:29	1		RXI-5SILMS/IIG 0.25(mm)
STD9 240-327899/21 IC		05/22/2018 14:54	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-327899/22 IC		05/22/2018 15:19	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-327899/23 IC		05/22/2018 15:44	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-327899/24 IC		05/22/2018 16:08	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-327899/25 IC		05/22/2018 16:33	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-327899/26 IC		05/22/2018 16:58	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-327899/27 IC		05/22/2018 17:23	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-327899/28 IC		05/22/2018 17:48	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-327899/29		05/22/2018 18:12	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/22/2018 18:37	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A4AG2 Start Date: 05/28/2018 07:31

Analysis Batch Number: 328811 End Date: 05/28/2018 19:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-328811/1		05/28/2018 07:31	1	80528001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-328811/2 CCVIS		05/28/2018 07:49	1	80528002.D	RXI-5SILMS/IIG 0.25(mm)
LODV 240-328811/3		05/28/2018 08:15	1		RXI-5SILMS/IIG 0.25(mm)
MB 240-328327/23-A		05/28/2018 08:40	1	80528004.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-328327/24-A		05/28/2018 09:05	1	80528005.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-2		05/28/2018 11:10	1	80528010.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-2 MS		05/28/2018 11:35	1	80528011.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-2 MSD		05/28/2018 12:00	1	80528012.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-3		05/28/2018 12:25	1	80528013.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 13:16	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 13:41	10		RXI-5SILMS/IIG 0.25(mm)
240-96003-4		05/28/2018 14:06	1	80528017.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-5		05/28/2018 14:31	1	80528018.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-6		05/28/2018 14:56	1	80528019.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-7		05/28/2018 15:21	1	80528020.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 16:36	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 17:02	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 17:27	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 17:52	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 18:17	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 18:42	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/28/2018 19:08	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A4AG2 Start Date: 05/30/2018 06:30

Analysis Batch Number: 329083 End Date: 05/30/2018 14:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-329083/1		05/30/2018 06:30	1	80530001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-329083/2 CCVIS		05/30/2018 06:54	1	80530002.D	RXI-5SILMS/IIG 0.25(mm)
LODV 240-329083/3		05/30/2018 07:21	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 08:10	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 08:35	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 09:00	1		RXI-5SILMS/IIG 0.25(mm)
240-96003-8		05/30/2018 09:25	10	80530008.D	RXI-5SILMS/IIG 0.25(mm)
240-96003-9		05/30/2018 09:49	20	80530009.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 10:14	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 10:39	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 11:04	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 11:54	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 13:09	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 13:34	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 13:59	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		05/30/2018 14:24	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328327 Batch Start Date: 05/25/18 08:32 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-96003-K-2	MSA-MW-22D-052118	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96003-L-2 MS	MSA-MW-22D-052118	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
240-96003-M-2 MSD	MSA-MW-22D-052118	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
240-96003-G-3	MSA-MW-26S-052118	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-96003-F-4	MSA-MW-42S-052118	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-96003-E-5	MSA-MW-42I-052118	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-96003-I-6	MSA-MW-23S-052218	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96003-E-7	MSA-MW-23D-052218	3510C, 8270D	T	260 mL	5 mL	6 SU	2 SU		
240-96003-G-8	MSA-MW-41S-052218	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96003-E-9	MSA-MW-41I-052218	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
MB 240-328327/23		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-328327/24		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
240-96003-K-2	MSA-MW-22D-052118	3510C, 8270D	T	0.4 mL					
240-96003-L-2 MS	MSA-MW-22D-052118	3510C, 8270D	T	0.4 mL					
240-96003-M-2 MSD	MSA-MW-22D-052118	3510C, 8270D	T	0.4 mL					
240-96003-G-3	MSA-MW-26S-052118	3510C, 8270D	T	0.4 mL					
240-96003-F-4	MSA-MW-42S-052118	3510C, 8270D	T	0.4 mL					
240-96003-E-5	MSA-MW-42I-052118	3510C, 8270D	T	0.4 mL					
240-96003-I-6	MSA-MW-23S-052218	3510C, 8270D	T	0.4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328327 Batch Start Date: 05/25/18 08:32 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
240-96003-E-7	MSA-MW-23D-052218	3510C, 8270D	T	0.4 mL					
240-96003-G-8	MSA-MW-41S-052218	3510C, 8270D	T	0.4 mL					
240-96003-E-9	MSA-MW-41I-052218	3510C, 8270D	T	0.4 mL					
MB 240-328327/23		3510C, 8270D		0.4 mL					
LCS 240-328327/24		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3594582
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW-26S-052118	240-96003-3	95
MSA-MW-42S-052118	240-96003-4	97
MSA-MW-23S-052218	240-96003-6	95
MSA-MW-41S-052218	240-96003-8	94
	MB 240-328572/12	90
	LCS 240-328572/13	92

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Y0052513.D

Lab ID: LCS 240-328572/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	718	90	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: MB 240-328572/12

Matrix: Water Date Extracted: 05/25/2018 19:08

Lab File ID:(1) Y0052512.D Lab File ID:(2)

Date Analyzed:(1) 05/25/2018 19:08 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-328572/13	05/25/2018 19:50	
MSA-MW-26S-052118	240-96003-3	05/25/2018 23:11	
MSA-MW-42S-052118	240-96003-4	05/25/2018 23:51	
MSA-MW-23S-052218	240-96003-6	05/26/2018 00:31	
MSA-MW-41S-052218	240-96003-8	05/26/2018 01:10	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328572/12

Matrix: Water | Lab File ID: Y0052512.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/25/2018 19:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 328572 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	90		56-120

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: CCVRT 240-328572/4 Date Analyzed: 05/25/2018 13:28

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): Y0052504.D Heated Purge: (Y/N) N

Calibration ID: 45332

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				9.53		
UPPER LIMIT				9.63		
LOWER LIMIT				9.43		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-328572/4		05/25/2018 13:28	Y0052504.D	9.53		
CCV 240-328572/11		05/25/2018 18:26	Y0052511.D	9.53		
MB 240-328572/12		05/25/2018 19:08	Y0052512.D	9.53		
LCS 240-328572/13		05/25/2018 19:50	Y0052513.D	9.53		
240-96003-3	MSA-MW-26S-052118	05/25/2018 23:11	Y0052518.D	9.53		
240-96003-4	MSA-MW-42S-052118	05/25/2018 23:51	Y0052519.D	9.53		
240-96003-6	MSA-MW-23S-052218	05/26/2018 00:31	Y0052520.D	9.53		
240-96003-8	MSA-MW-41S-052218	05/26/2018 01:10	Y0052521.D	9.53		
CCV 240-328572/23		05/26/2018 02:30	Y0052523.D	9.54		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328117

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/23/2018 09:37 Calibration End Date: 05/23/2018 14:21 Calibration ID: 45332

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-328117/4	Y0052304.D
Level 2	STD2 240-328117/5	Y0052305.D
Level 3	STD3 240-328117/6	Y0052306.D
Level 4	STD4 240-328117/7	Y0052307.D
Level 5	STD5 240-328117/8	Y0052308.D
Level 6	STD6 240-328117/9	Y0052309.D
Level 7	STD7 240-328117/10	Y0052310.D
Level 8	STD8 240-328117/11	Y0052311.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	10.770	10.770	10.770	10.770	10.770	10.770	10.770	10.770			4.819 - 16.721	10.770
C6-C12	12.106	12.106	12.106	12.106	12.106	12.106	12.106	12.106			4.819 - 19.392	12.106
Trifluorotoluene (Surr)	9.555	9.537	9.535	9.531	9.530	9.531	9.527	9.532			9.281 - 9.781	9.535

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328117

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/23/2018 09:37 Calibration End Date: 05/23/2018 14:21 Calibration ID: 45332

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-328117/4	Y0052304.D
Level 2	STD2 240-328117/5	Y0052305.D
Level 3	STD3 240-328117/6	Y0052306.D
Level 4	STD4 240-328117/7	Y0052307.D
Level 5	STD5 240-328117/8	Y0052308.D
Level 6	STD6 240-328117/9	Y0052309.D
Level 7	STD7 240-328117/10	Y0052310.D
Level 8	STD8 240-328117/11	Y0052311.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	116749 80993	98701 80901	87364 82886	84262 80806	Lin	2767253.91	80599.1675							1.0000		0.9900
C6-C12	151973 91310	119504 91040	101761 92179	94764 89966	Lin1	5961505.30	88615.0110							1.0000		0.9900
Trifluorotoluene (Surr)	78463 70800	75534 72491	68246 66835	70532 66419	Lin1	61882.3223	67518.9793							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 328117

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/23/2018 09:37 Calibration End Date: 05/23/2018 14:21 Calibration ID: 45332

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-328117/4	Y0052304.D
Level 2	STD2 240-328117/5	Y0052305.D
Level 3	STD3 240-328117/6	Y0052306.D
Level 4	STD4 240-328117/7	Y0052307.D
Level 5	STD5 240-328117/8	Y0052308.D
Level 6	STD6 240-328117/9	Y0052309.D
Level 7	STD7 240-328117/10	Y0052310.D
Level 8	STD8 240-328117/11	Y0052311.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	11674866 129441325	19740152 265234314	34945700 387869960	67409551	97191923	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	15197348 145663567	23900844 294971693	40704349 431835220	75811482	109572175	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	313850 14498113	604268 29407456	1364929 42508359	2821274	5663988	4.00 200	8.00 440	20.0 640	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328117/12 Calibration Date: 05/23/2018 15:03

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052312.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		77187		732	800	-8.5	20.0
C6-C12	Lin1		91633		760	800	-5.0	20.0
Trifluorotoluene (Surr)	Lin1		62057		35.8	40.0	-10.4	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-328117/12 Calibration Date: 05/23/2018 15:03

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052312.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	10.77	4.82	16.72
C6-C12	12.11	4.82	19.39
Trifluorotoluene (Surr)	9.54	9.28	9.78

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCVRT 240-328572/4 Calibration Date: 05/25/2018 13:28

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052504.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		82688		786	800	-1.7	20.0
C6-C12	Lin1		93757		779	800	-2.6	20.0
Trifluorotoluene (Surr)	Lin1		61500		35.5	40.0	-11.2	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCVRT 240-328572/4 Calibration Date: 05/25/2018 13:28

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052504.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	10.77	4.88	16.70
C6-C12	12.11	4.88	19.50
Trifluorotoluene (Surr)	9.53	9.28	9.78

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328572/11 Calibration Date: 05/25/2018 18:26

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052511.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		78712		747	800	-6.6	20.0
C6-C12	Lin1		89397		740	800	-7.5	20.0
Trifluorotoluene (Surr)	Lin1		65369		37.8	40.0	-5.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328572/11 Calibration Date: 05/25/2018 18:26

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052511.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	10.77	4.88	16.70
C6-C12	12.11	4.88	19.50
Trifluorotoluene (Surr)	9.53	9.28	9.78

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328572/23 Calibration Date: 05/26/2018 02:30

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052523.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		68580		646	800	-19.2	20.0
C6-C12	Lin1		77402		631	800	-21.1*	20.0
Trifluorotoluene (Surr)	Lin1		61902		35.8	40.0	-10.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328572/23 Calibration Date: 05/26/2018 02:30

Instrument ID: YPID Calib Start Date: 05/23/2018 09:37

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 05/23/2018 14:21

Lab File ID: Y0052523.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	10.79	4.88	16.70
C6-C12	12.19	4.88	19.50
Trifluorotoluene (Surr)	9.54	9.28	9.78

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: YPID Start Date: 05/23/2018 09:37

Analysis Batch Number: 328117 End Date: 05/23/2018 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-328117/4 IC		05/23/2018 09:37	1	Y0052304.D	RTX-VRX 0.45(mm)
STD2 240-328117/5 IC		05/23/2018 10:16	1	Y0052305.D	RTX-VRX 0.45(mm)
STD3 240-328117/6 IC		05/23/2018 10:56	1	Y0052306.D	RTX-VRX 0.45(mm)
STD4 240-328117/7 IC		05/23/2018 11:36	1	Y0052307.D	RTX-VRX 0.45(mm)
STD5 240-328117/8 IC		05/23/2018 12:16	1	Y0052308.D	RTX-VRX 0.45(mm)
STD6 240-328117/9 IC		05/23/2018 12:57	1	Y0052309.D	RTX-VRX 0.45(mm)
STD7 240-328117/10 IC		05/23/2018 13:39	1	Y0052310.D	RTX-VRX 0.45(mm)
STD8 240-328117/11 IC		05/23/2018 14:21	1	Y0052311.D	RTX-VRX 0.45(mm)
ICV 240-328117/12		05/23/2018 15:03	1	Y0052312.D	RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 15:44	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 16:25	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 17:05	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 17:46	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 18:26	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 19:06	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 19:46	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 20:25	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 21:05	1		RTX-VRX 0.45(mm)
ZZZZZ		05/23/2018 21:45	1		RTX-VRX 0.45(mm)
CCV 240-328117/23		05/23/2018 22:24	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: YPID Start Date: 05/25/2018 13:28

Analysis Batch Number: 328572 End Date: 05/26/2018 08:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-328572/4		05/25/2018 13:28	1	Y0052504.D	RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 14:10	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 14:52	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 15:35	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 16:18	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 17:01	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 17:44	1		RTX-VRX 0.45(mm)
CCV 240-328572/11		05/25/2018 18:26	1	Y0052511.D	RTX-VRX 0.45(mm)
MB 240-328572/12		05/25/2018 19:08	1	Y0052512.D	RTX-VRX 0.45(mm)
LCS 240-328572/13		05/25/2018 19:50	1	Y0052513.D	RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 21:52	1		RTX-VRX 0.45(mm)
ZZZZZ		05/25/2018 22:32	1		RTX-VRX 0.45(mm)
240-96003-3		05/25/2018 23:11	1	Y0052518.D	RTX-VRX 0.45(mm)
240-96003-4		05/25/2018 23:51	1	Y0052519.D	RTX-VRX 0.45(mm)
240-96003-6		05/26/2018 00:31	1	Y0052520.D	RTX-VRX 0.45(mm)
240-96003-8		05/26/2018 01:10	1	Y0052521.D	RTX-VRX 0.45(mm)
CCV 240-328572/23		05/26/2018 02:30	1	Y0052523.D	RTX-VRX 0.45(mm)
ZZZZZ		05/26/2018 03:10	1		RTX-VRX 0.45(mm)
ZZZZZ		05/26/2018 03:49	1		RTX-VRX 0.45(mm)
CCV 240-328572/32		05/26/2018 08:26	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328117 Batch Start Date: 05/23/18 09:37 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
STD1 240-328117/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-328117/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-328117/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-328117/7 IC		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-328117/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-328117/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-328117/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		1 uL
STD8 240-328117/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		1 uL
ICV 240-328117/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328572 Batch Start Date: 05/25/18 13:28 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-328572/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-328572/11		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-328572/12		8015C		5 mL	5 mL				1 uL
LCS 240-328572/13		8015C		5 mL	5 mL			40 uL	1 uL
240-96003-A-3	MSA-MW-26S-052118	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96003-A-4	MSA-MW-42S-052118	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96003-A-6	MSA-MW-23S-052218	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96003-A-8	MSA-MW-41S-052218	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-328572/23		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1	#
MSA-MW-26S-052118	240-96003-3	35	X
MSA-MW-26S-052118 RE	240-96003-3 RE	79	
MSA-MW-42S-052118	240-96003-4	71	
MSA-MW-23S-052218	240-96003-6	72	
MSA-MW-41S-052218	240-96003-8	78	
	MB 240-328316/21-A	68	
	MB 240-329310/7-A	83	
	LCS 240-328316/22-A	66	
	LCS 240-329310/8-A	87	

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R052509.D

Lab ID: LCS 240-328316/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1420	71	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R060109.D

Lab ID: LCS 240-329310/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1550	78	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: MB 240-328316/21-A

Matrix: Water Date Extracted: 05/24/2018 08:06

Lab File ID:(1) R052508.D Lab File ID:(2)

Date Analyzed:(1) 05/25/2018 19:44 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-328316/22-A	05/25/2018 20:12	
MSA-MW-26S-052118	240-96003-3	05/25/2018 20:39	
MSA-MW-42S-052118	240-96003-4	05/25/2018 21:06	
MSA-MW-23S-052218	240-96003-6	05/25/2018 21:33	
MSA-MW-41S-052218	240-96003-8	05/25/2018 22:01	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328316/21-A

Matrix: Water | Lab File ID: R052508.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/24/2018 08:06

Sample wt/vol: 250(mL) | Date Analyzed: 05/25/2018 19:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 328660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	68		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: MB 240-329310/7-A

Matrix: Water Date Extracted: 05/31/2018 07:27

Lab File ID:(1) R060108.D Lab File ID:(2)

Date Analyzed:(1) 06/01/2018 17:42 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329310/8-A	06/01/2018 18:10	
MSA-MW-26S-052118 RE	240-96003-3 RE	06/01/2018 18:37	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96003-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329310/7-A

Matrix: Water | Lab File ID: R060108.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/31/2018 07:27

Sample wt/vol: 250(mL) | Date Analyzed: 06/01/2018 17:42

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329629 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Sample No.: CCV 240-329629/7 Date Analyzed: 06/01/2018 17:15

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R060107.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-329629/7 CCVRT		06/01/2018 17:15	R060107.D	8.42		
MB 240-329310/7-A		06/01/2018 17:42	R060108.D	8.42		
LCS 240-329310/8-A		06/01/2018 18:10	R060109.D	8.42		
240-96003-3 RE	MSA-MW-26S-052118 RE	06/01/2018 18:37	R060110.D	8.42		
CCV 240-329629/17		06/01/2018 21:48	R060117.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96003-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328660/7 Calibration Date: 05/25/2018 19:17

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	942388		111000	100000	10.8	20.0
o-Terphenyl (Surr)	Ave	998632	1083320		8680	8000	8.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328660/7 Calibration Date: 05/25/2018 19:17

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052507.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328660/14 Calibration Date: 05/25/2018 22:28

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052514.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	962094		113000	100000	13.1	20.0
o-Terphenyl (Surr)	Ave	998632	1104843		8850	8000	10.6	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-328660/14 Calibration Date: 05/25/2018 22:28

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R052514.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-329629/7 Calibration Date: 06/01/2018 17:15

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	838583		98600	100000	-1.4	20.0
o-Terphenyl (Surr)	Ave	998632	971159		7780	8000	-2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-329629/7 Calibration Date: 06/01/2018 17:15

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060107.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-329629/17 Calibration Date: 06/01/2018 21:48

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060117.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	872313		103000	100000	2.6	20.0
o-Terphenyl (Surr)	Ave	998632	1001721		8020	8000	0.3	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: CCV 240-329629/17 Calibration Date: 06/01/2018 21:48

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060117.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: RTC 240-328660/6 Date Analyzed: 05/25/2018 18:50

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R052506.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: RTC 240-329629/6 Date Analyzed: 06/01/2018 16:47

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R060106.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A2HP14R Start Date: 05/25/2018 18:50

Analysis Batch Number: 328660 End Date: 05/26/2018 01:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-328660/6		05/25/2018 18:50	1	R052506.D	Rxi-5HT 0.53(mm)
CCV 240-328660/7		05/25/2018 19:17	1	R052507.D	Rxi-5HT 0.53(mm)
MB 240-328316/21-A		05/25/2018 19:44	1	R052508.D	Rxi-5HT 0.53(mm)
LCS 240-328316/22-A		05/25/2018 20:12	1	R052509.D	Rxi-5HT 0.53(mm)
240-96003-3		05/25/2018 20:39	1	R052510.D	Rxi-5HT 0.53(mm)
240-96003-4		05/25/2018 21:06	1	R052511.D	Rxi-5HT 0.53(mm)
240-96003-6		05/25/2018 21:33	1	R052512.D	Rxi-5HT 0.53(mm)
240-96003-8		05/25/2018 22:01	1	R052513.D	Rxi-5HT 0.53(mm)
CCV 240-328660/14		05/25/2018 22:28	1	R052514.D	Rxi-5HT 0.53(mm)
ZZZZZ		05/25/2018 22:55	1		Rxi-5HT 0.53(mm)
ZZZZZ		05/25/2018 23:22	1		Rxi-5HT 0.53(mm)
ZZZZZ		05/25/2018 23:49	1		Rxi-5HT 0.53(mm)
ZZZZZ		05/26/2018 00:16	1		Rxi-5HT 0.53(mm)
ZZZZZ		05/26/2018 00:43	1		Rxi-5HT 0.53(mm)
CCV 240-328660/20		05/26/2018 01:11	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: A2HP14R Start Date: 06/01/2018 16:47

Analysis Batch Number: 329629 End Date: 06/01/2018 21:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-329629/6		06/01/2018 16:47	1	R060106.D	Rxi-5HT 0.53(mm)
CCV 240-329629/7 CCVRT		06/01/2018 17:15	1	R060107.D	Rxi-5HT 0.53(mm)
MB 240-329310/7-A		06/01/2018 17:42	1	R060108.D	Rxi-5HT 0.53(mm)
LCS 240-329310/8-A		06/01/2018 18:10	1	R060109.D	Rxi-5HT 0.53(mm)
240-96003-3 RE		06/01/2018 18:37	1	R060110.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 19:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 19:32	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 19:59	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 20:26	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 20:54	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 21:21	1		Rxi-5HT 0.53(mm)
CCV 240-329629/17		06/01/2018 21:48	1	R060117.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 328316 Batch Start Date: 05/24/18 10:30 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/25/18 04:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-96003-H-3	MSA-MW-26S-052118	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-96003-H-4	MSA-MW-42S-052118	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
240-96003-F-6	MSA-MW-23S-052218	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
240-96003-F-8	MSA-MW-41S-052218	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-328316/21		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-328316/22		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Batch Number: 329310 Batch Start Date: 05/31/18 11:30 Batch Analyst: Earle, Steve

Batch Method: 3520C Batch End Date: 06/01/18 05:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-96003-I-3	MSA-MW-26S-052118	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-329310/7		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-329310/8		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328800/7 05/25/2018 11:12				CCV 240-328800/210 05/26/2018 02:18				CCV 240-328800/222 05/26/2018 03:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.8		40.0	102	49.8		50.0	100	47.6		50.0	95
Arsenic	41.4		40.0	104	53.5		50.0	107	54.7		50.0	109
Barium	39.6		40.0	99	50.3		50.0	101	47.6		50.0	95
Beryllium	38.6		40.0	96	59.1		50.0	118	59.5		50.0	119
Cadmium	40.5		40.0	101	46.8		50.0	94	46.9		50.0	94
Chromium	40.7		40.0	102	49.8		50.0	100	51.2		50.0	102
Cobalt	41.2		40.0	103	51.4		50.0	103	52.8		50.0	106
Copper	42.5		40.0	106	52.0		50.0	104	53.2		50.0	106
Dissolved Iron	10100		10000	101	12800		12500	102	13200		12500	105
Dissolved Lead	41.3		40.0	103	51.5		50.0	103	50.7		50.0	101
Dissolved Manganese	207		200	104	250		250	100	264		250	106
Dissolved Molybdenum	40.8		40.0	102	49.4		50.0	99	49.9		50.0	100
Dissolved Nickel	41.2		40.0	103	51.0		50.0	102	52.6		50.0	105
Dissolved Selenium	39.9		40.0	100	46.4		50.0	93	46.1		50.0	92
Dissolved Silver	40.7		40.0	102	48.9		50.0	98	48.4		50.0	97
Dissolved Thallium	40.1		40.0	100	51.2		50.0	102	50.7		50.0	101
Dissolved Vanadium	40.2		40.0	100	50.5		50.0	101	52.0		50.0	104
Zinc	41.3		40.0	103	52.1		50.0	104	53.7		50.0	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	CCV 240-328800/234 05/26/2018 04:05											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.6		50.0	97								
Arsenic	52.6		50.0	105								
Barium	48.4		50.0	97								
Beryllium	55.5		50.0	111								
Cadmium	46.9		50.0	94								
Chromium	50.0		50.0	100								
Cobalt	51.3		50.0	103								
Copper	51.7		50.0	103								
Dissolved Iron	12900		12500	103								
Dissolved Lead	51.6		50.0	103								
Dissolved Manganese	257		250	103								
Dissolved Molybdenum	49.5		50.0	99								
Dissolved Nickel	51.2		50.0	102								
Dissolved Selenium	45.5		50.0	91								
Dissolved Silver	48.6		50.0	97								
Dissolved Thallium	51.5		50.0	103								
Dissolved Vanadium	50.2		50.0	100								
Zinc	52.3		50.0	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328800/7 05/25/2018 11:12				CCV 240-328800/198 05/26/2018 01:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.8		40.0	102	50.9		50.0	102				
Arsenic	41.4		40.0	104	53.6		50.0	107				
Barium	39.6		40.0	99	51.8		50.0	104				
Beryllium	38.6		40.0	96	56.9		50.0	114				
Cadmium	40.5		40.0	101	47.1		50.0	94				
Chromium	40.7		40.0	102	50.1		50.0	100				
Cobalt	41.2		40.0	103	51.6		50.0	103				
Copper	42.5		40.0	106	52.2		50.0	104				
Dissolved Iron	10100		10000	101	12800		12500	102				
Dissolved Lead	41.3		40.0	103	49.8		50.0	100				
Dissolved Manganese	207		200	104	256		250	102				
Dissolved Molybdenum	40.8		40.0	102	48.9		50.0	98				
Dissolved Nickel	41.2		40.0	103	51.6		50.0	103				
Dissolved Silver	40.7		40.0	102	48.7		50.0	97				
Dissolved Thallium	40.1		40.0	100	50.0		50.0	100				
Dissolved Vanadium	40.2		40.0	100	50.4		50.0	101				
Zinc	41.3		40.0	103	52.2		50.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-328800/9 05/25/2018 11:21				CCVL 240-328800/239 05/26/2018 04:28							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.86	J	2.00	93	1.77	J	2.00	88				
Arsenic	4.85	J	5.00	97	5.53		5.00	111				
Barium	4.75	J	5.00	95	4.68	J	5.00	94				
Beryllium	0.873	J	1.00	87	1.05		1.00	105				
Cadmium	0.964	J	1.00	96	0.954	J	1.00	95				
Chromium	1.96	J	2.00	98	1.97	J	2.00	98				
Cobalt	1.03		1.00	103	1.07		1.00	107				
Copper	2.13		2.00	106	2.19		2.00	110				
Dissolved Iron	110		100	110	112		100	112				
Dissolved Lead	0.925	J	1.00	93	0.955	J	1.00	96				
Dissolved Manganese	4.92	J	5.00	98	5.26		5.00	105				
Dissolved Molybdenum	5.02		5.00	100	4.96	J	5.00	99				
Dissolved Nickel	2.07		2.00	103	1.99	J	2.00	100				
Dissolved Selenium	4.19	J	5.00	84	4.35	J	5.00	87				
Dissolved Silver	0.959	J	1.00	96	0.929	J	1.00	93				
Dissolved Thallium	1.02		1.00	102	1.05		1.00	105				
Dissolved Vanadium	4.91	J	5.00	98	5.03		5.00	101				
Zinc	20.4		20.0	102	21.5		20.0	107				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-328903/7 05/27/2018 16:39				CCV 240-328903/24 05/27/2018 18:00				CCV 240-328903/36 05/27/2018 18:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Selenium	39.3		40.0	98	49.4		50.0	99	49.1		50.0	98
Antimony	40.4		40.0	101	50.4		50.0	101	50.2		50.0	100
Arsenic	40.3		40.0	101	49.6		50.0	99	49.0		50.0	98
Barium	39.7		40.0	99	49.2		50.0	98	49.2		50.0	98
Beryllium	39.4		40.0	99	47.9		50.0	96	48.1		50.0	96
Cadmium	40.7		40.0	102	49.8		50.0	100	49.4		50.0	99
Chromium	39.4		40.0	99	49.1		50.0	98	49.2		50.0	98
Cobalt	40.2		40.0	101	49.4		50.0	99	49.5		50.0	99
Copper	41.3		40.0	103	49.8		50.0	100	49.6		50.0	99
Iron	9880		10000	99	12200		12500	97	12300		12500	98
Lead	41.9		40.0	105	49.4		50.0	99	48.4		50.0	97
Manganese	195		200	97	243		250	97	250		250	100
Molybdenum	40.9		40.0	102	50.9		50.0	102	51.9		50.0	104
Nickel	40.8		40.0	102	49.2		50.0	98	49.9		50.0	100
Silver	40.9		40.0	102	49.3		50.0	99	50.4		50.0	101
Thallium	41.6		40.0	104	49.9		50.0	100	48.6		50.0	97
Vanadium	38.9		40.0	97	49.2		50.0	98	49.6		50.0	99
Zinc	40.0		40.0	100	48.0		50.0	96	48.4		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-328903/7 05/27/2018 16:39				CCV 240-328903/12 05/27/2018 17:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Selenium	39.3		40.0	98	50.3		50.0	101				
Antimony	40.4		40.0	101	49.7		50.0	99				
Arsenic	40.3		40.0	101	49.3		50.0	99				
Barium	39.7		40.0	99	48.3		50.0	97				
Beryllium	39.4		40.0	99	48.0		50.0	96				
Cadmium	40.7		40.0	102	49.5		50.0	99				
Chromium	39.4		40.0	99	48.9		50.0	98				
Cobalt	40.2		40.0	101	49.4		50.0	99				
Copper	41.3		40.0	103	49.9		50.0	100				
Iron	9880		10000	99	12400		12500	99				
Lead	41.9		40.0	105	49.5		50.0	99				
Manganese	195		200	97	248		250	99				
Molybdenum	40.9		40.0	102	54.9		50.0	110				
Nickel	40.8		40.0	102	48.6		50.0	97				
Silver	40.9		40.0	102	49.6		50.0	99				
Thallium	41.6		40.0	104	49.8		50.0	100				
Vanadium	38.9		40.0	97	48.4		50.0	97				
Zinc	40.0		40.0	100	48.6		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-328903/9 05/27/2018 16:48				CCVL 240-328903/40 05/27/2018 19:11							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Selenium	4.67	J	5.00	93	5.10		5.00	102				
Antimony	2.01		2.00	101	2.00		2.00	100				
Arsenic	5.04		5.00	101	4.95	J	5.00	99				
Barium	4.84	J	5.00	97	4.80	J	5.00	96				
Beryllium	0.847	J	1.00	85	0.909	J	1.00	91				
Cadmium	1.03		1.00	103	0.998	J	1.00	100				
Chromium	1.86	J	2.00	93	1.79	J	2.00	90				
Cobalt	1.03		1.00	103	1.00		1.00	100				
Copper	2.00		2.00	100	2.00		2.00	100				
Iron	110		100	110	107		100	107				
Lead	0.973	J	1.00	97	0.902	J	1.00	90				
Manganese	4.81	J	5.00	96	4.63	J	5.00	93				
Molybdenum	5.02		5.00	100	5.05		5.00	101				
Nickel	1.86	J	2.00	93	1.93	J	2.00	96				
Silver	0.966	J	1.00	97	0.980	J	1.00	98				
Thallium	1.02		1.00	102	1.01		1.00	101				
Vanadium	4.82	J	5.00	96	4.83	J	5.00	97				
Zinc	19.4	J	20.0	97	18.3	J	20.0	92				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTHgICV_00001_00345 Concentration Units: ug/L

CCV Source: MTHGCALW_01836

Analyte	ICV 240-328986/7-A 05/29/2018 13:23				CCV 240-328986/10-A 05/29/2018 14:56				CCV 240-328986/10-A 05/29/2018 15:21			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.95		5.00	99	4.86		5.00	97	4.90		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICV Source: MTHgICV_00001_00345 Concentration Units: ug/L

CCV Source: MTHGCALW_01836

Analyte	CCV 240-328986/10-A 05/29/2018 15:46				CCV 240-328986/10-A 05/29/2018 16:09				CCV 240-328986/10-A 05/29/2018 16:34			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.93		5.00	99	4.79		5.00	96	4.69		5.00	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-328986/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01836

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.197	J	99	50-150
Mercury	0.200	0.197	J	99	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328800/8 05/25/2018 11:17		CCB 240-328800/199 05/26/2018 01:29		CCB 240-328800/211 05/26/2018 02:23		CCB 240-328800/223 05/26/2018 03:16	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-328800/235 05/26/2018 04:10							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328903/8 05/27/2018 16:44		CCB 240-328903/13 05/27/2018 17:06		CCB 240-328903/25 05/27/2018 18:04		CCB 240-328903/37 05/27/2018 18:58	
		Found	C	Found	C	Found	C	Found	C
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328986/8-A 05/29/2018 13:25		CCB 240-328986/11-A 05/29/2018 14:58		CCB 240-328986/11-A 05/29/2018 15:23		CCB 240-328986/11-A 05/29/2018 15:48	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-328986/11-A 05/29/2018 16:11		CCB 240-328986/11-A 05/29/2018 16:36					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-328370/1-A

Instrument Code: I10 Batch No.: 328800

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U	^	6020A
7440-41-7	Dissolved Beryllium	0.31	U	^	6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-328370/1-A

Instrument Code: I10 Batch No.: 328903

CAS No.	Analyte	Concentration	C	Q	Method
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-328374/1-A

Instrument Code: H3 Batch No.: 329115

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSA 240-328800/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0470**	
Arsenic		**-0.180**	
Barium		**0.0010**	
Beryllium		**-0.0040**	
Cadmium		**0.316**	
Chromium		**0.0770**	
Cobalt		**0.0070**	
Copper		**0.438**	
Dissolved Iron	**50000**	**48472**	**97**
Dissolved Lead		**0.381**	
Dissolved Manganese		**0.0830**	
Dissolved Molybdenum	**1000**	**1016**	**102**
Dissolved Nickel		**0.131**	
Dissolved Selenium		**-0.339**	
Dissolved Silver		**0.0130**	
Dissolved Thallium		**0.0010**	
Dissolved Vanadium		**-0.112**	
Zinc		**0.211**	
Aluminum	*50000*	*48113*	*96*
Boron		*3.78*	
Calcium	*50000*	*48582*	*97*
Lithium		*-0.468*	
Magnesium	*50000*	*48930*	*98*
Potassium	*50000*	*47710*	*95*
Sodium	*50000*	*48143*	*96*
Strontium		*0.441*	
Tin		*-0.236*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.210*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSAB 240-328800/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.9**	**99**
Arsenic	**100**	**99.8**	**100**
Barium	**100**	**96.4**	**96**
Beryllium	**100**	**100.0**	**100**
Cadmium	**100**	**97.0**	**97**
Chromium	**100**	**96.1**	**96**
Cobalt	**100**	**97.9**	**98**
Copper	**100**	**99.5**	**99**
Dissolved Iron	**50000**	**48311**	**97**
Dissolved Lead	**100**	**101**	**101**
Dissolved Manganese	**100**	**96.3**	**96**
Dissolved Molybdenum	**1100**	**1119**	**102**
Dissolved Nickel	**100**	**98.8**	**99**
Dissolved Selenium	**100**	**99.4**	**99**
Dissolved Silver	**100**	**98.8**	**99**
Dissolved Thallium	**100**	**98.1**	**98**
Dissolved Vanadium	**100**	**97.8**	**98**
Zinc	**100**	**98.6**	**99**
Aluminum	*50000*	*48276*	*97*
Boron	*100*	*107*	*107*
Calcium	*50000*	*48636*	*97*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*49350*	*99*
Potassium	*50000*	*48542*	*97*
Sodium	*50000*	*48565*	*97*
Strontium	*100*	*99.8*	*100*
Tin	*100*	*99.3*	*99*
Titanium	*1100*	*1118*	*102*
Tungsten	*100*	*99.7*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSA 240-328800/151 Instrument ID: I10

Lab File ID: 151ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0950**	
Arsenic		**0.0450**	
Barium		**-0.0080**	
Beryllium		**0.0200**	
Cadmium		**0.318**	
Chromium		**0.0460**	
Cobalt		**0.0210**	
Copper		**0.428**	
Dissolved Iron	**50000**	**49116**	**98**
Dissolved Lead		**0.423**	
Dissolved Manganese		**0.543**	
Dissolved Molybdenum	**1000**	**1012**	**101**
Dissolved Nickel		**0.127**	
Dissolved Selenium		**-0.843**	
Dissolved Silver		**0.0050**	
Dissolved Thallium		**-0.0020**	
Dissolved Vanadium		**-0.0530**	
Zinc		**0.307**	
Aluminum	*50000*	*46276*	*93*
Boron		*5.30*	
Calcium	*50000*	*48334*	*97*
Lithium		*-0.816*	
Magnesium	*50000*	*47528*	*95*
Potassium	*50000*	*46759*	*94*
Sodium	*50000*	*46874*	*94*
Strontium		*0.478*	
Tin		*-0.326*	
Titanium	*1000*	*1001*	*100*
Tungsten		*0.111*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSAB 240-328800/152 Instrument ID: I10

Lab File ID: 152ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.6**	**99**
Arsenic	**100**	**101**	**101**
Barium	**100**	**97.5**	**98**
Beryllium	**100**	**112**	**112**
Cadmium	**100**	**93.7**	**94**
Chromium	**100**	**95.6**	**96**
Cobalt	**100**	**98.0**	**98**
Copper	**100**	**98.2**	**98**
Dissolved Iron	**50000**	**48387**	**97**
Dissolved Lead	**100**	**100**	**100**
Dissolved Manganese	**100**	**95.9**	**96**
Dissolved Molybdenum	**1100**	**1105**	**100**
Dissolved Nickel	**100**	**97.4**	**97**
Dissolved Selenium	**100**	**93.1**	**93**
Dissolved Silver	**100**	**96.1**	**96**
Dissolved Thallium	**100**	**98.2**	**98**
Dissolved Vanadium	**100**	**95.4**	**95**
Zinc	**100**	**98.0**	**98**
Aluminum	*50000*	*46108*	*92*
Boron	*100*	*114*	*114*
Calcium	*50000*	*47943*	*96*
Lithium	*100*	*110*	*110*
Magnesium	*50000*	*46409*	*93*
Potassium	*50000*	*45517*	*91*
Sodium	*50000*	*45749*	*91*
Strontium	*100*	*96.1*	*96*
Tin	*100*	*96.7*	*97*
Titanium	*1100*	*1085*	*99*
Tungsten	*100*	*98.1*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSA 240-328903/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Dissolved Selenium		**0.106**	
Aluminum	*50000*	*48951*	*98*
Antimony		*0.0160*	
Arsenic		*-0.0890*	
Barium		*0.0180*	
Beryllium		*-0.0290*	
Boron		*-2.98*	
Cadmium		*0.272*	
Calcium	*50000*	*49249*	*98*
Chromium		*-0.0210*	
Cobalt		*0.0120*	
Copper		*0.338*	
Iron	*50000*	*48749*	*97*
Lead		*0.423*	
Lithium		*-3.54*	
Magnesium	*50000*	*49139*	*98*
Manganese		*-0.133*	
Molybdenum	*1000*	*1024*	*102*
Nickel		*0.0510*	
Potassium	*50000*	*48965*	*98*
Silver		*0.0110*	
Sodium	*50000*	*48723*	*97*
Strontium		*0.432*	
Thallium		*-0.0190*	
Tin		*-2.06*	
Titanium	*1000*	*997*	*100*
Tungsten		*0.156*	
Vanadium		*-0.0200*	
Zinc		*-1.63*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Lab Sample ID: ICSAB 240-328903/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Dissolved Selenium	**100**	**98.3**	**98**
Aluminum	*50000*	*48511*	*97*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*101*	*101*
Barium	*100*	*99.4*	*99*
Beryllium	*100*	*101*	*101*
Boron	*100*	*103*	*103*
Cadmium	*100*	*98.9*	*99*
Calcium	*50000*	*48791*	*98*
Chromium	*100*	*96.8*	*97*
Cobalt	*100*	*97.9*	*98*
Copper	*100*	*98.4*	*98*
Iron	*50000*	*48726*	*97*
Lead	*100*	*99.4*	*99*
Lithium	*100*	*101*	*101*
Magnesium	*50000*	*48294*	*97*
Manganese	*100*	*96.8*	*97*
Molybdenum	*1100*	*1133*	*103*
Nickel	*100*	*97.9*	*98*
Potassium	*50000*	*48876*	*98*
Silver	*100*	*99.8*	*100*
Sodium	*50000*	*48285*	*97*
Strontium	*100*	*99.9*	*100*
Thallium	*100*	*98.0*	*98*
Tin	*100*	*103*	*103*
Titanium	*1100*	*1082*	*98*
Tungsten	*100*	*98.4*	*98*
Vanadium	*100*	*97.3*	*97*
Zinc	*100*	*99.7*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-22D-052118 MS
Lab ID: 240-96003-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96003-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.968		0.13	U	1.00	97	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-22D-052118 MS
Lab ID: 240-96003-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96003-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	98.9		1.3	J	100	98	75-125		6020A
Arsenic	1060		9.5		1000	105	75-125		6020A
Barium	1040		67		1000	97	75-125		6020A
Beryllium	1230		0.31	U	1000	123	75-125	^	6020A
Cadmium	949		0.32	J	1000	95	75-125		6020A
Cobalt	1050		6.5		1000	105	75-125		6020A
Chromium	1000		3.5		1000	100	75-125		6020A
Copper	1080		9.3		1000	107	75-125		6020A
Iron	11000		840		10000	101	75-125		6020A
Manganese	1070		53		1000	101	75-125		6020A
Molybdenum	101		2.3	J	100	98	75-125		6020A
Nickel	1060		6.8		1000	105	75-125		6020A
Lead	1100		4.2		1000	110	75-125		6020A
Selenium	1000		0.89	U	1000	100	75-125		6020A
Thallium	267		0.20	U	250	107	75-125		6020A
Vanadium	1030		10		1000	102	75-125		6020A
Zinc	1810		680		1000	113	75-125		6020A
Silver	98.0		0.11	J	100	98	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-22D-052118 MS
Lab ID: 240-96003-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96003-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Antimony	101		1.3	J	100	100	75-125		6020A
Dissolved Arsenic	1070		10		1000	106	75-125		6020A
Dissolved Barium	1100		60		1000	104	75-125		6020A
Dissolved Beryllium	1210		0.39	J	1000	121	75-125	^	6020A
Dissolved Cadmium	953		0.21	J	1000	95	75-125		6020A
Dissolved Cobalt	1070		7.7		1000	106	75-125		6020A
Dissolved Chromium	1010		2.9		1000	101	75-125		6020A
Dissolved Copper	1100		6.1		1000	109	75-125		6020A
Dissolved Iron	10800		590		10000	102	75-125		6020A
Dissolved Manganese	1080		58		1000	103	75-125		6020A
Dissolved Molybdenum	98.8		2.2	J	100	97	75-125		6020A
Dissolved Nickel	1050		6.4		1000	105	75-125		6020A
Dissolved Lead	1070		1.6		1000	107	75-125		6020A
Dissolved Selenium	1000		0.89	U	1000	100	75-125		6020A
Dissolved Zinc	1760		620		1000	114	75-125		6020A
Dissolved Thallium	261		0.20	U	250	104	75-125		6020A
Dissolved Vanadium	1040		10		1000	103	75-125		6020A
Dissolved Silver	98.0		0.053	U	100	98	75-125		6020A
Mercury, Dissolved	0.917		0.13	U	1.00	92	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-22D-052118 MSD Lab ID: 240-96003-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.892		1.00	89	80-120	8	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-22D-052118 MSD Lab ID: 240-96003-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	97.7		100	96	75-125	1	20		6020A
Arsenic	1050		1000	104	75-125	1	20		6020A
Barium	1030		1000	96	75-125	1	20		6020A
Beryllium	1200		1000	120	75-125	2	20	^	6020A
Cadmium	945		1000	94	75-125	0	20		6020A
Cobalt	1030		1000	102	75-125	2	20		6020A
Chromium	980		1000	98	75-125	2	20		6020A
Copper	1080		1000	107	75-125	0	20		6020A
Iron	10700		10000	98	75-125	3	20		6020A
Manganese	1050		1000	100	75-125	1	20		6020A
Molybdenum	96.6		100	94	75-125	4	20		6020A
Nickel	1050		1000	105	75-125	0	20		6020A
Lead	1070		1000	106	75-125	3	20		6020A
Selenium	970		1000	97	75-125	3	20		6020A
Thallium	260		250	104	75-125	3	20		6020A
Vanadium	1000		1000	99	75-125	2	20		6020A
Zinc	1770		1000	109	75-125	2	20		6020A
Silver	94.5		100	94	75-125	4	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-22D-052118 MSD
Lab ID: 240-96003-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96003-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Antimony	103		100	102	75-125	2	20		6020A
Dissolved Arsenic	1090		1000	108	75-125	1	20		6020A
Dissolved Barium	1110		1000	105	75-125	1	20		6020A
Dissolved Beryllium	1210		1000	121	75-125	0	20	^	6020A
Dissolved Cadmium	967		1000	97	75-125	1	20		6020A
Dissolved Cobalt	1080		1000	107	75-125	1	20		6020A
Dissolved Chromium	1030		1000	103	75-125	2	20		6020A
Dissolved Copper	1110		1000	111	75-125	2	20		6020A
Dissolved Iron	10800		10000	102	75-125	1	20		6020A
Dissolved Manganese	1100		1000	104	75-125	1	20		6020A
Dissolved Molybdenum	101		100	98	75-125	2	20		6020A
Dissolved Nickel	1090		1000	108	75-125	3	20		6020A
Dissolved Lead	1050		1000	105	75-125	2	20		6020A
Dissolved Selenium	1000		1000	100	75-125	0	20		6020A
Dissolved Zinc	1770		1000	115	75-125	1	20		6020A
Dissolved Thallium	260		250	104	75-125	0	20		6020A
Dissolved Vanadium	1040		1000	103	75-125	1	20		6020A
Dissolved Silver	98.2		100	98	75-125	0	20		6020A
Mercury, Dissolved	0.884		1.00	88	80-120	4	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-328370/2-A

Lab Name: TestAmerica Canton Job No.: 240-96003-1

Sample Matrix: Water LCS Source: MTICPMSB_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	96.9		97	80	120		6020A
Dissolved Antimony	100	96.9		97	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Dissolved Arsenic	1000	1040		104	80	120		6020A
Barium	1000	985		99	80	120		6020A
Dissolved Barium	1000	985		99	80	120		6020A
Beryllium	1000	1190		119	80	120	^	6020A
Dissolved Beryllium	1000	1190		119	80	120	^	6020A
Cadmium	1000	955		96	80	120		6020A
Dissolved Cadmium	1000	955		96	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Chromium	1000	998		100	80	120		6020A
Dissolved Chromium	1000	998		100	80	120		6020A
Copper	1000	1090		109	80	120		6020A
Dissolved Copper	1000	1090		109	80	120		6020A
Dissolved Iron	10000	10000		100	80	120		6020A
Iron	10000	10000		100	80	120		6020A
Dissolved Manganese	1000	1010		101	80	120		6020A
Manganese	1000	1010		101	80	120		6020A
Dissolved Molybdenum	100	94.3		94	80	120		6020A
Molybdenum	100	94.3		94	80	120		6020A
Dissolved Nickel	1000	1050		105	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Dissolved Lead	1000	1050		105	80	120		6020A
Lead	1000	1050		105	80	120		6020A
Dissolved Thallium	250	257		103	80	120		6020A
Thallium	250	257		103	80	120		6020A
Dissolved Vanadium	1000	1000		100	80	120		6020A
Dissolved Zinc	1000	1020		102	80	120		6020A
Vanadium	1000	1000		100	80	120		6020A
Zinc	1000	1020		102	80	120		6020A
Dissolved Silver	100	95.8		96	80	120		6020A
Silver	100	95.8		96	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-328370/2-A

Lab Name: TestAmerica Canton Job No.: 240-96003-1

Sample Matrix: Water LCS Source: MTICPMSA_00034

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Selenium	1000	977		98	80	120		6020A
Selenium	1000	977		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-328374/2-A

Lab Name: TestAmerica Canton Job No.: 240-96003-1

Sample Matrix: Water LCS Source: MTHGCALW_01833

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.61		92	80	120		7470A
Mercury, Dissolved	5.00	4.61		92	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-96003-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96003-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.3	J	2.9	U	NC		6020A
Antimony	1.3	J	2.9	U	NC		6020A
Arsenic	9.5		10.5	J	NC		6020A
Arsenic	9.5		10.5	J	NC		6020A
Barium	67		68.2		NC		6020A
Barium	67		68.2		NC		6020A
Beryllium	0.31	U	1.5	U	NC	^	6020A
Beryllium	0.31	U	1.5	U	NC	^	6020A
Cadmium	0.32	J	1.1	U	NC		6020A
Cadmium	0.32	J	1.1	U	NC		6020A
Cobalt	6.5		6.71		NC		6020A
Cobalt	6.5		6.71		NC		6020A
Chromium	3.5		4.9	U	NC		6020A
Chromium	3.5		4.9	U	NC		6020A
Copper	9.3		9.37	J	NC		6020A
Copper	9.3		9.37	J	NC		6020A
Dissolved Iron	840		913		NC		6020A
Dissolved Iron	840		913		NC		6020A
Dissolved Manganese	53		54.6		NC		6020A
Dissolved Manganese	53		54.6		NC		6020A
Dissolved Molybdenum	2.3	J	5.4	U	NC		6020A
Dissolved Molybdenum	2.3	J	5.4	U	NC		6020A
Dissolved Nickel	6.8		7.42	J	NC		6020A
Dissolved Nickel	6.8		7.42	J	NC		6020A
Dissolved Lead	4.2		3.95	J	NC		6020A
Dissolved Lead	4.2		3.95	J	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	10		10.8	J	NC		6020A
Dissolved Vanadium	10		10.8	J	NC		6020A
Zinc	680		704		NC		6020A
Zinc	680		704		NC		6020A
Dissolved Silver	0.11	J	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-96003-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96003-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.11	J	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96003-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96003-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.3	J	2.9	U	NC		6020A
Arsenic	10		12.2	J	NC		6020A
Barium	60		62.6		NC		6020A
Beryllium	0.39	J	1.5	U	NC	^	6020A
Cadmium	0.21	J	1.1	U	NC		6020A
Cobalt	7.7		7.93		NC		6020A
Chromium	2.9		4.9	U	NC		6020A
Copper	6.1		8.5	U	NC		6020A
Dissolved Iron	590		629		NC		6020A
Dissolved Manganese	58		60.2		NC		6020A
Dissolved Molybdenum	2.2	J	5.4	U	NC		6020A
Dissolved Nickel	6.4		7.4	U	NC		6020A
Dissolved Lead	1.6		2.3	U	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	10		9.77	J	NC		6020A
Zinc	620		648		NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96003-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-96003-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Dissolved Zinc		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Zinc		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-328370/1-A	05/24/2018 14:00	328370		50	50
LCS 240-328370/2-A	05/24/2018 14:00	328370		50	50
240-96003-2	05/24/2018 14:00	328370		50	50
240-96003-2 MS	05/24/2018 14:00	328370		50	50
240-96003-2 MSD	05/24/2018 14:00	328370		50	50
240-96003-2	05/24/2018 14:00	328370		50	50
240-96003-2 MS	05/24/2018 14:00	328370		50	50
240-96003-2 MSD	05/24/2018 14:00	328370		50	50
240-96003-3	05/24/2018 14:00	328370		50	50
240-96003-3	05/24/2018 14:00	328370		50	50
240-96003-4	05/24/2018 14:00	328370		50	50
240-96003-4	05/24/2018 14:00	328370		50	50
240-96003-5	05/24/2018 14:00	328370		50	50
240-96003-5	05/24/2018 14:00	328370		50	50
240-96003-6	05/24/2018 14:00	328370		50	50
240-96003-6	05/24/2018 14:00	328370		50	50
240-96003-7	05/24/2018 14:00	328370		50	50
240-96003-7	05/24/2018 14:00	328370		50	50
240-96003-8	05/24/2018 14:00	328370		50	50
240-96003-8	05/24/2018 14:00	328370		50	50
240-96003-9	05/24/2018 14:00	328370		50	50
240-96003-9	05/24/2018 14:00	328370		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-328374/1-A	05/24/2018 12:00	328374		50	50
LCS 240-328374/2-A	05/24/2018 12:00	328374		50	50
240-96003-2	05/24/2018 12:00	328374		50	50
240-96003-2 MS	05/24/2018 12:00	328374		50	50
240-96003-2 MSD	05/24/2018 12:00	328374		50	50
240-96003-2	05/24/2018 12:00	328374		50	50
240-96003-2 MS	05/24/2018 12:00	328374		50	50
240-96003-2 MSD	05/24/2018 12:00	328374		50	50
240-96003-3	05/24/2018 12:00	328374		50	50
240-96003-3	05/24/2018 12:00	328374		50	50
240-96003-4	05/24/2018 12:00	328374		50	50
240-96003-4	05/24/2018 12:00	328374		50	50
240-96003-5	05/24/2018 12:00	328374		50	50
240-96003-5	05/24/2018 12:00	328374		50	50
240-96003-6	05/24/2018 12:00	328374		50	50
240-96003-6	05/24/2018 12:00	328374		50	50
240-96003-7	05/24/2018 12:00	328374		50	50
240-96003-7	05/24/2018 12:00	328374		50	50
240-96003-8	05/24/2018 12:00	328374		50	50
240-96003-8	05/24/2018 12:00	328374		50	50
240-96003-9	05/24/2018 12:00	328374		50	50
240-96003-9	05/24/2018 12:00	328374		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:46																									
ICIS 240-328800/2			10:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-328800/3 IC	1		10:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-328800/4 IC	1		10:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-328800/5 IC	1		11:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-328800/6 IC	1		11:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-328800/7	1		11:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-328800/8	1		11:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-328800/9	1		11:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-328800/10	1		11:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-328800/11	1		11:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-328800/12			11:35																									
CCB 240-328800/13			11:39																									
ZZZZZZ			11:44																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:58																									
ZZZZZZ			12:02																									
ZZZZZZ			12:07																									
ZZZZZZ			12:11																									
ZZZZZZ			12:16																									
ZZZZZZ			12:20																									
ZZZZZZ			12:25																									
CCV 240-328800/24			12:29																									
CCB 240-328800/25			12:33																									
ZZZZZZ			12:38																									
ZZZZZZ			12:42																									
ZZZZZZ			12:47																									
ZZZZZZ			12:51																									
ZZZZZZ			12:56																									
ZZZZZZ			13:00																									
ZZZZZZ			13:05																									
ZZZZZZ			13:09																									
ZZZZZZ			13:14																									
ZZZZZZ			13:18																									
CCV 240-328800/36			13:23																									
CCB 240-328800/37			13:27																									
ZZZZZZ			13:32																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:45																									
ZZZZZZ			13:49																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:54																										
ZZZZZZ			13:58																										
ZZZZZZ			14:03																										
ZZZZZZ			14:07																										
ZZZZZZ			14:12																										
CCV 240-328800/48			14:16																										
CCB 240-328800/49			14:20																										
CCV 240-328800/50			14:25																										
CCB 240-328800/51			14:29																										
CCVL 240-328800/52			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:43																										
ZZZZZZ			14:47																										
ZZZZZZ			14:52																										
ZZZZZZ			14:56																										
CCV 240-328800/58			15:01																										
CCB 240-328800/59			15:05																										
ZZZZZZ			15:10																										
ZZZZZZ			15:14																										
ZZZZZZ			15:19																										
ZZZZZZ			15:23																										
ZZZZZZ			15:27																										
ZZZZZZ			15:32																										
ZZZZZZ			15:36																										
ZZZZZZ			15:41																										
ZZZZZZ			15:45																										
ZZZZZZ			15:50																										
CCV 240-328800/70			15:54																										
CCB 240-328800/71			15:59																										
ZZZZZZ			16:03																										
ZZZZZZ			16:07																										
ZZZZZZ			16:12																										
ZZZZZZ			16:16																										
ZZZZZZ			16:21																										
ZZZZZZ			16:25																										
ZZZZZZ			16:30																										
CCV 240-328800/79			16:34																										
CCB 240-328800/80			16:39																										
ZZZZZZ			16:43																										
ZZZZZZ			16:48																										
ZZZZZZ			16:52																										
ZZZZZZ			16:56																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:01																										
ZZZZZZ			17:05																										
ZZZZZZ			17:10																										
ZZZZZZ			17:14																										
ZZZZZZ			17:19																										
ZZZZZZ			17:23																										
CCV 240-328800/91			17:28																										
CCB 240-328800/92			17:32																										
ZZZZZZ			17:36																										
ZZZZZZ			17:41																										
ZZZZZZ			17:45																										
ZZZZZZ			17:50																										
ZZZZZZ			17:54																										
CCV 240-328800/98			17:59																										
CCB 240-328800/99			18:03																										
CCVL 240-328800/100			18:08																										
ZZZZZZ			18:12																										
ZZZZZZ			18:17																										
ZZZZZZ			18:21																										
ZZZZZZ			18:26																										
ZZZZZZ			18:30																										
ZZZZZZ			18:34																										
ZZZZZZ			18:39																										
ZZZZZZ			18:43																										
ZZZZZZ			18:48																										
CCV 240-328800/110			18:52																										
CCB 240-328800/111			18:57																										
ZZZZZZ			19:01																										
CCV 240-328800/113			19:06																										
CCB 240-328800/114			19:10																										
ZZZZZZ			19:15																										
ZZZZZZ			19:19																										
ZZZZZZ			19:23																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:37																										
ZZZZZZ			19:41																										
ZZZZZZ			19:46																										
ZZZZZZ			19:50																										
ZZZZZZ			19:55																										
CCV 240-328800/125			19:59																										
CCB 240-328800/126			20:04																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			20:08																									
ZZZZZZ			20:12																									
ZZZZZZ			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:26																									
ZZZZZZ			20:30																									
ZZZZZZ			20:35																									
ZZZZZZ			20:39																									
ZZZZZZ			20:44																									
ZZZZZZ			20:48																									
CCV 240-328800/137			20:53																									
CCB 240-328800/138			20:57																									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:10																									
ZZZZZZ			21:15																									
ZZZZZZ			21:19																									
CCV 240-328800/144			21:24																									
CCB 240-328800/145			21:28																									
CCVL 240-328800/146			21:33																									
ZZZZZZ			21:37																									
ZZZZZZ			21:42																									
ZZZZZZ			21:46																									
ZZZZZZ			21:50																									
ICSA 240-328800/151	1		21:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-328800/152	1		21:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			22:04																									
ZZZZZZ			22:08																									
ZZZZZZ			22:13																									
ZZZZZZ			22:17																									
ZZZZZZ			22:22																									
CCV 240-328800/158			22:26																									
CCB 240-328800/159			22:31																									
ZZZZZZ			22:35																									
ZZZZZZ			22:39																									
ZZZZZZ			22:44																									
ZZZZZZ			22:48																									
ZZZZZZ			22:53																									
ZZZZZZ			22:57																									
ZZZZZZ			23:02																									
ZZZZZZ			23:06																									
ZZZZZZ			23:11																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			23:15																									
CCV 240-328800/170			23:20																									
CCB 240-328800/171			23:24																									
ZZZZZZ			23:29																									
ZZZZZZ			23:33																									
ZZZZZZ			23:37																									
ZZZZZZ			23:42																									
ZZZZZZ			23:46																									
ZZZZZZ			23:51																									
ZZZZZZ			23:55																									
CCV 240-328800/179			00:00																									
CCB 240-328800/180			00:04																									
CCVL 240-328800/181			00:09																									
ZZZZZZ			00:13																									
ZZZZZZ			00:18																									
ZZZZZZ			00:22																									
ZZZZZZ			00:27																									
ZZZZZZ			00:31																									
ZZZZZZ			00:35																									
ZZZZZZ			00:40																									
ZZZZZZ			00:44																									
ZZZZZZ			00:49																									
CCV 240-328800/191			00:53																									
CCB 240-328800/192			00:58																									
ZZZZZZ			01:02																									
ZZZZZZ			01:07																									
ZZZZZZ			01:11																									
ZZZZZZ			01:16																									
ZZZZZZ			01:20																									
CCV 240-328800/198	1		01:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X							
CCB 240-328800/199	1		01:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-328800/200			01:34																									
MB 240-328370/1-A	1	R	01:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X								
LCS 240-328370/2-A	1	R	01:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X							
240-96003-2	1	R	01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X								
240-96003-2 SD	5	R	01:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X								
ZZZZZZ			01:56																									
240-96003-2 MS	1	R	02:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X							
240-96003-2 MSD	1	R	02:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X							
240-96003-2	1	D	02:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X								
240-96003-2 SD	5	D	02:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X								
CCV 240-328800/210	1		02:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCB 240-328800/211	1		02:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			02:27																									
240-96003-2 MS	1	D	02:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X								
240-96003-2 MSD	1	D	02:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X								
240-96003-3	1	R	02:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-3	1	D	02:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-4	1	R	02:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-4	1	D	02:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-5	1	R	02:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-5	1	D	03:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-6	1	R	03:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-328800/222	1		03:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-328800/223	1		03:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-6	1	D	03:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-7	1	R	03:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-7	1	D	03:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-8	1	R	03:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-8	1	D	03:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-9	1	R	03:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96003-9	1	D	03:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			03:52																									
ZZZZZZ			03:57																									
ZZZZZZ			04:01																									
CCV 240-328800/234	1		04:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-328800/235	1		04:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			04:14																									
CCV 240-328800/237			04:19																									
CCB 240-328800/238			04:23																									
CCVL 240-328800/239	1		04:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			04:32																									
ZZZZZZ			04:37																									
ZZZZZZ			04:41																									
ZZZZZZ			04:46																									
ZZZZZZ			04:50																									
ZZZZZZ			04:55																									
ZZZZZZ			04:59																									
ZZZZZZ			05:04																									
ZZZZZZ			05:08																									
CCV 240-328800/249			05:13																									
CCB 240-328800/250			05:17																									
ZZZZZZ			05:22																									
ZZZZZZ			05:26																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/25/2018 10:46 End Date: 05/26/2018 06:11

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			05:31																											
ZZZZZZ			05:35																											
ZZZZZZ			05:39																											
ZZZZZZ			05:44																											
ZZZZZZ			05:48																											
ZZZZZZ			05:53																											
CCV 240-328800/259			05:57																											
CCB 240-328800/260			06:02																											
CCV 240-328800/261			06:06																											
CCB 240-328800/262			06:11																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes
				Se
ZZZZZZ			16:13	
ICIS 240-328903/2			16:17	X
STD1 240-328903/3 IC	1		16:21	X
STD2 240-328903/4 IC	1		16:26	X
STD3 240-328903/5 IC	1		16:30	X
STD4 240-328903/6 IC	1		16:35	X
ICV 240-328903/7	1		16:39	X
ICB 240-328903/8	1		16:44	X
ICVL 240-328903/9	1		16:48	X
ICSA 240-328903/10	1		16:53	X
ICSAB 240-328903/11	1		16:57	X
CCV 240-328903/12	1		17:02	X
CCB 240-328903/13	1		17:06	X
ZZZZZZ			17:15	
ZZZZZZ			17:20	
ZZZZZZ			17:24	
ZZZZZZ			17:29	
ZZZZZZ			17:33	
ZZZZZZ			17:38	
ZZZZZZ			17:42	
ZZZZZZ			17:47	
MB 240-328370/1-A	1	R	17:51	X
LCS 240-328370/2-A	1	R	17:56	X
CCV 240-328903/24	1		18:00	X
CCB 240-328903/25	1		18:04	X
240-96003-2	1	R	18:09	X
240-96003-2 SD	5	R	18:13	X
ZZZZZZ			18:18	
240-96003-2 MS	1	R	18:22	X
240-96003-2 MSD	1	R	18:27	X
240-96003-2	1	D	18:31	X
240-96003-2 SD	5	D	18:36	X
ZZZZZZ			18:40	
240-96003-2 MS	1	D	18:44	X
240-96003-2 MSD	1	D	18:49	X
CCV 240-328903/36	1		18:53	X
CCB 240-328903/37	1		18:58	X
CCV 240-328903/38			19:02	
CCB 240-328903/39			19:07	
CCVL 240-328903/40	1		19:11	X
ZZZZZZ			19:16	
ZZZZZZ			19:20	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes
				Se
ZZZZZZ			19:25	
CCV 240-328903/44			19:29	
CCB 240-328903/45			19:33	
ZZZZZZ			19:38	
ZZZZZZ			19:42	
ZZZZZZ			19:47	
ZZZZZZ			19:51	
ZZZZZZ			19:56	
ZZZZZZ			20:00	
ZZZZZZ			20:05	
ZZZZZZ			20:09	
ZZZZZZ			20:14	
ZZZZZZ			20:18	
CCV 240-328903/56			20:22	
CCB 240-328903/57			20:27	
ZZZZZZ			20:31	
ZZZZZZ			20:36	
ZZZZZZ			20:40	
ZZZZZZ			20:45	
ZZZZZZ			20:49	
ZZZZZZ			20:54	
ZZZZZZ			20:58	
ZZZZZZ			21:03	
ZZZZZZ			21:07	
ZZZZZZ			21:12	
CCV 240-328903/68			21:16	
CCB 240-328903/69			21:21	
ZZZZZZ			21:25	
ZZZZZZ			21:29	
ZZZZZZ			21:34	
CCV 240-328903/73			21:38	
CCB 240-328903/74			21:43	
CCVL 240-328903/75			21:47	
ZZZZZZ			21:52	
ZZZZZZ			21:56	
ZZZZZZ			22:01	
ZZZZZZ			22:05	
ZZZZZZ			22:10	
ZZZZZZ			22:14	
ZZZZZZ			22:18	
ZZZZZZ			22:23	
ZZZZZZ			22:27	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 05/27/2018 16:13 End Date: 05/28/2018 00:41

Lab Sample Id	D/F	Type	Time	Analytes
				Se
CCV 240-328903/85			22:32	
CCB 240-328903/86			22:36	
ZZZZZZ			22:41	
ZZZZZZ			22:45	
ZZZZZZ			22:50	
ZZZZZZ			22:54	
ZZZZZZ			22:58	
ZZZZZZ			23:03	
ZZZZZZ			23:07	
ZZZZZZ			23:12	
ZZZZZZ			23:16	
ZZZZZZ			23:21	
CCV 240-328903/97			23:25	
CCB 240-328903/98			23:30	
ZZZZZZ			23:34	
CCV 240-328903/100			23:38	
CCB 240-328903/101			23:43	
ZZZZZZ			23:47	
ZZZZZZ			23:52	
ZZZZZZ			23:56	
ZZZZZZ			00:01	
ZZZZZZ			00:05	
ZZZZZZ			00:10	
ZZZZZZ			00:14	
ZZZZZZ			00:19	
ZZZZZZ			00:23	
CCV 240-328903/111			00:27	
CCB 240-328903/112			00:32	
CCV 240-328903/113			00:36	
CCB 240-328903/114			00:41	

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/29/2018 13:05 End Date: 05/29/2018 18:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-328986/1-A			13:05	X																								
IC 240-328986/2-A			13:07	X																								
IC 240-328986/3-A			13:09	X																								
IC 240-328986/4-A			13:11	X																								
IC 240-328986/5-A			13:13	X																								
IC 240-328986/6-A			13:15	X																								
ICV 240-328986/7-A	1		13:23	X																								
ICB 240-328986/8-A	1		13:25	X																								
CRA 240-328986/9-A	1		13:27	X																								
CCV 240-328986/10-A			13:29																									
CCB 240-328986/11-A			13:31																									
CCV 240-328986/10-A			13:33																									
CCB 240-328986/11-A			13:35																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:54																									
ZZZZZZ			13:56																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
CCV 240-328986/10-A			14:08																									
CCB 240-328986/11-A			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
CCV 240-328986/10-A			14:32																									
CCB 240-328986/11-A			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/29/2018 13:05 End Date: 05/29/2018 18:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:46																									
ZZZZZZ			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
CCV 240-328986/10-A	1		14:56	X																								
CCB 240-328986/11-A	1		14:58	X																								
ZZZZZZ			15:01																									
ZZZZZZ			15:03																									
ZZZZZZ			15:05																									
ZZZZZZ			15:06																									
ZZZZZZ			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
MB 240-328374/1-A	1	T	15:19	X																								
CCV 240-328986/10-A	1		15:21	X																								
CCB 240-328986/11-A	1		15:23	X																								
LCS 240-328374/2-A	1	T	15:25	X																								
240-96003-2	1	T	15:27	X																								
240-96003-2 MS	1	T	15:30	X																								
240-96003-2 MSD	1	T	15:32	X																								
240-96003-2	1	D	15:34	X																								
240-96003-2 MS	1	D	15:36	X																								
240-96003-2 MSD	1	D	15:38	X																								
240-96003-3	1	T	15:40	X																								
240-96003-3	1	D	15:42	X																								
240-96003-4	1	T	15:44	X																								
CCV 240-328986/10-A	1		15:46	X																								
CCB 240-328986/11-A	1		15:48	X																								
240-96003-4	1	D	15:50	X																								
240-96003-5	1	T	15:52	X																								
240-96003-5	1	D	15:54	X																								
240-96003-6	1	T	15:56	X																								
240-96003-6	1	D	15:58	X																								
240-96003-7	1	T	16:00	X																								
240-96003-7	1	D	16:02	X																								
240-96003-8	1	T	16:04	X																								
240-96003-8	1	D	16:05	X																								
240-96003-9	1	T	16:07	X																								
CCV 240-328986/10-A	1		16:09	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/29/2018 13:05 End Date: 05/29/2018 18:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-328986/11-A	1		16:11	X																								
240-96003-9	1	D	16:14	X																								
ZZZZZZ			16:16																									
ZZZZZZ			16:18																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									
CCV 240-328986/10-A	1		16:34	X																								
CCB 240-328986/11-A	1		16:36	X																								
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:46																									
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
ZZZZZZ			16:55																									
CCV 240-328986/10-A			16:57																									
CCB 240-328986/11-A			16:59																									
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:15																									
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
CCV 240-328986/10-A			17:21																									
CCB 240-328986/11-A			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:30																									
ZZZZZZ			17:31																									
ZZZZZZ			17:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/29/2018 13:05 End Date: 05/29/2018 18:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:35																									
ZZZZZZ			17:37																									
ZZZZZZ			17:39																									
ZZZZZZ			17:41																									
ZZZZZZ			17:43																									
CCV 240-328986/10-A			17:45																									
CCB 240-328986/11-A			17:47																									
ZZZZZZ			17:49																									
ZZZZZZ			17:51																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
ZZZZZZ			17:57																									
ZZZZZZ			17:59																									
ZZZZZZ			18:01																									
ZZZZZZ			18:03																									
ZZZZZZ			18:05																									
ZZZZZZ			18:07																									
CCV 240-328986/10-A			18:09																									
CCB 240-328986/11-A			18:11																									
CCV 240-328986/10-A			18:13																									
CCB 240-328986/11-A			18:15																									

Prep Types:
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328800/3 IC	10:55	98		98		101		98		102	
STD2 240-328800/4 IC	10:59	94		97		99		97		101	
STD3 240-328800/5 IC	11:03	93		95		98		94		98	
STD4 240-328800/6 IC	11:08	94		96		98		99		101	
ICV 240-328800/7	11:12	95		96		99		97		103	
ICB 240-328800/8	11:17	95		95		98		100		104	
ICVL 240-328800/9	11:21	99		98		102		103		106	
ICSA 240-328800/10	11:26	92		96		99		95		99	
ICSAB 240-328800/11	11:30	88		96		98		94		99	
ICSA 240-328800/151	21:55	76		78		80		83		90	
ICSAB 240-328800/152	21:59	75		80		80		85		92	
CCV 240-328800/198	01:25	59		62		64		75		82	
CCB 240-328800/199	01:29	59		61		64		76		82	
MB 240-328370/1-A	01:38	64		63		65		76		82	
LCS 240-328370/2-A	01:42	60		62		64		73		77	
240-96003-2	01:47	61		62		64		72		79	
240-96003-2 SD	01:51	61		62		64		74		80	
240-96003-2 MS	02:00	58		62		64		71		77	
240-96003-2 MSD	02:05	58		62		63		72		75	
240-96003-2	02:09	60		60		63		72		77	
240-96003-2 SD	02:14	57		59		61		71		80	
CCV 240-328800/210	02:18	55		59		61		69		78	
CCB 240-328800/211	02:23	57		58		61		72		80	
240-96003-2 MS	02:32	57		59		61		70		77	
240-96003-2 MSD	02:36	58		60		64		72		78	
240-96003-3	02:41	60		62		65		72		79	
240-96003-3	02:45	60		62		65		72		78	
240-96003-4	02:49	60		62		65		72		78	
240-96003-4	02:54	61		62		65		72		80	
240-96003-5	02:58	60		62		65		69		77	
240-96003-5	03:03	62		64		67		71		78	
240-96003-6	03:07	63		64		66		75		79	
CCV 240-328800/222	03:12	60		61		65		72		79	
CCB 240-328800/223	03:16	60		60		63		72		78	
240-96003-6	03:21	63		62		65		72		79	
240-96003-7	03:25	60		62		64		70		77	
240-96003-7	03:30	60		61		64		69		74	
240-96003-8	03:34	59		61		62		68		73	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
240-96003-8	03:39	59		61		65		68		77	
240-96003-9	03:43	63		62		67		71		80	
240-96003-9	03:48	62		62		66		73		81	
CCV 240-328800/234	04:05	61		63		66		74		80	
CCB 240-328800/235	04:10	60		61		63		73		80	
CCVL 240-328800/239	04:28	61		61		63		73		78	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328800/3 IC	10:55	103		104		105					
STD2 240-328800/4 IC	10:59	105		103		101					
STD3 240-328800/5 IC	11:03	106		105		99					
STD4 240-328800/6 IC	11:08	108		107		105					
ICV 240-328800/7	11:12	107		108		107					
ICB 240-328800/8	11:17	108		108		106					
ICVL 240-328800/9	11:21	108		111		110					
ICSA 240-328800/10	11:26	107		109		105					
ICSAB 240-328800/11	11:30	108		107		102					
ICSA 240-328800/151	21:55	101		100		97					
ICSAB 240-328800/152	21:59	104		102		98					
CCV 240-328800/198	01:25	95		95		89					
CCB 240-328800/199	01:29	92		92		93					
MB 240-328370/1-A	01:38	92		91		93					
LCS 240-328370/2-A	01:42	88		91		85					
240-96003-2	01:47	86		89		88					
240-96003-2 SD	01:51	88		89		89					
240-96003-2 MS	02:00	86		87		83					
240-96003-2 MSD	02:05	87		88		83					
240-96003-2	02:09	85		87		84					
240-96003-2 SD	02:14	86		88		87					
CCV 240-328800/210	02:18	87		87		84					
CCB 240-328800/211	02:23	87		90		87					
240-96003-2 MS	02:32	88		90		84					
240-96003-2 MSD	02:36	90		94		85					
240-96003-3	02:41	90		92		86					
240-96003-3	02:45	87		89		83					
240-96003-4	02:49	89		89		85					
240-96003-4	02:54	86		89		83					
240-96003-5	02:58	86		87		81					
240-96003-5	03:03	88		88		81					
240-96003-6	03:07	85		88		86					
CCV 240-328800/222	03:12	88		88		84					
CCB 240-328800/223	03:16	85		86		86					
240-96003-6	03:21	86		86		84					
240-96003-7	03:25	85		87		80					
240-96003-7	03:30	83		85		79					
240-96003-8	03:34	84		86		79					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/25/2018 End Date: 05/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-96003-8	03:39	86		89		81					
240-96003-9	03:43	89		91		84					
240-96003-9	03:48	89		91		86					
CCV 240-328800/234	04:05	88		88		86					
CCB 240-328800/235	04:10	86		88		86					
CCVL 240-328800/239	04:28	85		87		85					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/27/2018 End Date: 05/27/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-328903/3 IC	16:21	101		101		100		99		100	
STD2 240-328903/4 IC	16:26	98		98		99		97		99	
STD3 240-328903/5 IC	16:30	98		98		100		96		97	
STD4 240-328903/6 IC	16:35	95		96		100		99		99	
ICV 240-328903/7	16:39	97		101		100		98		101	
ICB 240-328903/8	16:44	100		97		99		100		100	
ICVL 240-328903/9	16:48	101		99		102		102		102	
ICSA 240-328903/10	16:53	95		98		99		94		99	
ICSAB 240-328903/11	16:57	92		99		99		96		99	
CCV 240-328903/12	17:02	95		101		102		99		102	
CCB 240-328903/13	17:06	97		98		100		102		102	
MB 240-328370/1-A	17:51	101		107		110		108		106	
LCS 240-328370/2-A	17:56	93		104		104		104		103	
CCV 240-328903/24	18:00	104		109		112		106		106	
CCB 240-328903/25	18:04	103		107		107		107		106	
240-96003-2	18:09	100		104		106		104		104	
240-96003-2 SD	18:13	103		108		108		107		108	
240-96003-2 MS	18:22	92		98		102		101		102	
240-96003-2 MSD	18:27	91		100		103		98		100	
240-96003-2	18:31	97		100		105		102		103	
240-96003-2 SD	18:36	99		105		104		105		108	
240-96003-2 MS	18:44	89		97		100		100		100	
240-96003-2 MSD	18:49	88		98		101		100		100	
CCV 240-328903/36	18:53	98		104		106		101		105	
CCB 240-328903/37	18:58	99		103		102		104		104	
CCVL 240-328903/40	19:11	104		108		106		107		108	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96003-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 05/27/2018 End Date: 05/27/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-328903/3 IC	16:21	102		106		105					
STD2 240-328903/4 IC	16:26	104		107		100					
STD3 240-328903/5 IC	16:30	106		108		98					
STD4 240-328903/6 IC	16:35	104		106		105					
ICV 240-328903/7	16:39	106		109		103					
ICB 240-328903/8	16:44	104		108		103					
ICVL 240-328903/9	16:48	106		108		105					
ICSA 240-328903/10	16:53	105		107		100					
ICSAB 240-328903/11	16:57	108		111		101					
CCV 240-328903/12	17:02	107		111		105					
CCB 240-328903/13	17:06	107		109		106					
MB 240-328370/1-A	17:51	111		113		109					
LCS 240-328370/2-A	17:56	109		111		109					
CCV 240-328903/24	18:00	112		115		107					
CCB 240-328903/25	18:04	109		112		107					
240-96003-2	18:09	111		112		112					
240-96003-2 SD	18:13	110		113		113					
240-96003-2 MS	18:22	109		113		106					
240-96003-2 MSD	18:27	109		112		101					
240-96003-2	18:31	109		114		107					
240-96003-2 SD	18:36	111		113		112					
240-96003-2 MS	18:44	109		114		103					
240-96003-2 MSD	18:49	109		113		107					
CCV 240-328903/36	18:53	113		117		109					
CCB 240-328903/37	18:58	108		112		107					
CCVL 240-328903/40	19:11	110		112		109					

VOA Calibration Calculations:

Initial Calibration 5/24/2018
Instrument A3UX12

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	8790	1267892	20	0.2773	0.2773
1	15949	1335878	20	0.2388	0.2388
10	185998	1378125	20	0.2699	0.2699
20	391958	1466112	20	0.2673	0.2673
30	610011	1596000	20	0.2548	0.2548
40	860920	1607310	20	0.2678	0.2678
60	1338647	1747396	20	0.2554	0.2554
			Average	0.2616	0.2616
			Standard Deviation	0.0129	
			RSD	0.0492	
			%RSD	4.9189	4.9

Continuing Calibration 05/31/2018@ 17:05
Instrument A3UX12

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	424051	1530889	20	0.2770	5.886	0.277	5.9

MSA
SDG 240-96003-1

SAMPLE IDENTIFICATION	MSA-MW-41S-052218
COMPOUND	Trichloroethene
COMPOUND AREA	452352
INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	100
INTERNAL STANDARD AREA	1429565
AVERAGE RRF	0.2616
VOLUME OF SAMPLE (ml)	5
VOLUME EXTRACT (ml)	5
INJECTION VOLUME (µl)	1

CONCENTRATION = 2419.16 ug/L

SVOA Calibration Calculations:

Initial Calibration 5/22/2018
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
50	5398	159405	400	0.2709	0.27090
100	11579	156856	400	0.2953	0.29530
200	21331	151288	400	0.2820	0.28200
500	56845	169178	400	0.2688	0.26880
1000	103804	157920	400	0.2629	0.26290
1500	216110	167117	400	0.3448	0.34480
2000	245701	171903	400	0.2859	0.28590
2500	308850	171140	400	0.2887	0.28870
			Average	0.28742	0.2874
			Standard Deviation	0.0257	
			RSD	0.0893	
			%RSD	8.93051	8.9

Continuing Calibration 05/28/2018 @ 7:49
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1000	96825	145455	400	0.2663	-7.352847	0.2663	-7.4

MRC Groundwater
SDG 240-96003-1

SAMPLE IDENTIFICATION	MSA-MW-41I-052218
COMPOUND	1,4-Dioxane
COMPOUND AREA	101346
INTERNAL STANDARD AMOUNT (ng)	400
DILUTION FACTOR	20
INTERNAL STANDARD AREA	144642
AVERAGE RRF	0.2874
VOLUME OF SAMPLE	260
VOLUME OF EXTRACT	5
CONCENTRATION =	375.0698 ug/L

Calculation DRO	**Sample**		
	MSA-MW-23S-052218		
Target Analyte	C10-C32		
Analyte Response	39119526		
TPH Response	850533.076	ug/l	
Dilution Factor (DF)	1		
Volume Sample	0.28	L	
Final Volume	5	ml	
	on column amount	45.99412663	
		821.32	ug/L

Sample Report

Sample Table

Sample Name	240-96003-p-2-a
Data File Name	203SMPL.d
Data Path Name	D:\Analytical Runs\I10052518A.b
Acq Date Time	2018-05-26T01:47:27-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

SAMPLE MSA-MW-22D-052118

cOPPER REPORTED RESULT 9.3 ug/L

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	1.411	1.411	16.69	194205	0.00	10000	
Be	9	45	2	NoGas	0.287	0.287	2.06	1368	0.02	2000	
B	11	45	2	NoGas	464.208	464.208	1.03	991568	0.05	300	>LDR
Na	23	45	1	He	2772.941	2772.941	1.12	4660412	0.06	500000	
Mg	24	45	1	He	4510.920	4510.920	1.74	4095719	0.11	500000	
Al	27	45	1	He	165.657	165.657	1.92	106835	0.16	200000	
K	39	45	1	He	6749.902	6749.902	0.79	10396125	0.06	500000	
Ca	44	45	1	He	23855.636	23855.636	2.23	716321	3.33	500000	
Ti	47	45	1	He	8.151	8.151	3.63	2327	0.35	2500	
V	51	45	1	He	10.379	10.379	1.83	58875	0.02	10000	
Cr	52	45	1	He	3.460	3.460	1.25	21306	0.02	10000	
Mn	55	45	1	He	52.732	52.732	2.13	276087	0.02	10000	
Fe	56	45	1	He	836.766	836.766	1.43	4144072	0.02	200000	
Co	59	45	1	He	6.510	6.510	0.50	44021	0.01	5000	
Ni	60	45	1	He	6.774	6.774	1.47	11140	0.06	10000	
Cu	63	45	1	He	9.337	9.337	2.00	39644	0.02	10000	
Zn	66	45	1	He	676.734	676.734	1.11	667128	0.10	10000	
As	75	45	1	He	9.512	9.512	4.41	8720	0.11	10000	
Se	78	103	1	He	0.874	0.874	36.46	942	0.09	10000	
Sr	88	103	1	He	106.700	106.700	2.03	774355	0.01	10000	
Mo	95	103	1	He	2.320	2.320	2.98	4951	0.05	2000	
Ag	107	103	1	He	0.112	0.112	10.36	617	0.02	100	
Cd	111	115	1	He	0.316	0.316	0.44	343	0.09	4000	
Sn	118	115	1	He	1.244	1.244	15.82	4611	0.03	2000	
Sb	123	115	1	He	1.258	1.258	6.51	3677	0.03	200	
Ba	137	115	1	He	66.842	66.842	0.70	68242	0.10	10000	
W	182	159	1	He	0.540	0.540	6.62	1716	0.03	2500	
Tl	205	165	1	He	0.104	0.104	6.12	808	0.01	2000	
Pb	208	165	1	He	4.186	4.186	0.78	40479	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	2192193	1.49	3574950	61.32	60	120	
Sc	45	1	He	1784148	1.05	2893684	61.66	60	120	
Sc	45	2	NoGas	6953477	0.48	10815696	64.29	60	120	
Rh	103	1	He	2104460	0.86	2906302	72.41	60	120	
In	115	1	He	1609813	0.79	2047393	78.63	60	120	
Tb	159	1	He	2084671	1.49	2415342	86.31	60	120	
Ho	165	1	He	1861629	0.74	2098261	88.72	60	120	
Bi	209	1	He	1340922	1.40	1533260	87.46	60	120	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 31, 2017**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC & INORGANIC DATA VALIDATION – VOC/1,4-DIOXANE/DRO/GRO/ PERCHLORATE/TOTAL & DISSOLVED METALS**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA) GROUNDWATER SAMPLING
SAMPLE DELIVERY GROUP (SDG) 240-96144-1

SAMPLES: 22/Aqueous/VOC

DMW-10I-052418	DMW-10S-052418	DMW-1A-053018
DMW-1B-053018	DMW-1S-053018	MSA-MW-15D-052518
MSA-MW-15I-052518	MSA-MW-19D-053018	MSA-MW-21D-052418
MSA-MW-21I-052418	MSA-MW-24I-052318	MSA-MW-24S-052318
MSA-MW-3-052918	MSA-MW-30I-052318	MSA-MW-33I-052518
MSA-MW-33S-052518	MSA-MW-45S-052318	MSA-MW-54I-052918
MSA-MW-54S-052918	TB-052318	TB-052518
TB-053018		

19/Aqueous/1,4-Dioxane/Total & Dissolved Metals

DMW-10I-052418	DMW-10S-052418	DMW-1A-053018
DMW-1B-053018	DMW-1S-053018	MSA-MW-15D-052518
MSA-MW-15I-052518	MSA-MW-19D-053018	MSA-MW-21D-052418
MSA-MW-21I-052418	MSA-MW-24I-052318	MSA-MW-24S-052318
MSA-MW-3-052918	MSA-MW-30I-052318	MSA-MW-33I-052518
MSA-MW-33S-052518	MSA-MW-45S-052318	MSA-MW-54I-052918
MSA-MW-54S-052918		

7/Aqueous/DRO/GRO

DMW-10S-052418	DMW-1S-053018	MSA-MW-24S-052318
MSA-MW-3-052918	MSA-MW-33S-052518	MSA-MW-45S-052318
MSA-MW-54S-05291817		

6/Aqueous/Perchlorate

MSA-MW-15D-052518	MSA-MW-15I-052518	MSA-MW-21I-052418
MSA-MW-24I-052318	MSA-MW-54I-052918	MSA-MW-54S-052918

Overview

The sample set for LMC-MSA, SDG 240-96144-1 consisted of nineteen (19) aqueous environmental samples and three (3) trip blanks. All nineteen (19) aqueous environmental samples were analyzed for Volatile Organic Compounds (VOC), 1,4-dioxane, and total & dissolved metals. Seven (7) aqueous samples were analyzed for Diesel Range Organics (DRO) and Gasoline Range Organics (GRO). Six (6) aqueous samples were analyzed for perchlorate. The trip blanks were analyzed for VOC only. No field duplicate sample pair was included in this SDG.

The samples were collected by Tetra Tech, Inc. on May 23-25, 29, 30, 2018 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260C, 8270D, 8015C, 6020A, 7470A, and 6850 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory preparation/method and trip blank results, surrogate spike recoveries, laboratory control sample/laboratory control sample duplicate results, matrix spike/matrix spike duplicate results, internal standard results, chromatographic resolution, compound identification, tentatively identified compounds, analyte/compound quantitation, and detection limits. Areas of concern are listed below.

Major

- As stated in the laboratory case narrative, 2-chloroethyl vinyl ether cannot be reliably recovered in an acid preserved samples. All samples in this SDG were acid preserved, therefore, the non-detected results reported for 2-chloroethyl vinyl ether were qualified as rejected, (UR).

Minor

- The VOC continuing calibration performed on instrument A3UX12 on 06/03/2018 @ 11:27 had Percent Differences (%Ds) for dichlorodifluoromethane, vinyl chloride, trichlorofluoromethane, and 1,1,2-trichlorotrifluoroethane which exceeded the 20% quality control limit. Samples associated with analytical batch #240-329778 were affected. The detected and non-detected results reported for these compounds in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- The VOC continuing calibration performed on instrument A3UX12 on 06/08/2018 @ 17:20 had %Ds for hexachlorobutadiene and 1,2,3-trichlorobenzene exceeded the 20% quality control limit. Samples associated with analytical batch #240-330756 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

- The following compounds were detected in the trip blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level Reporting Limit (RL) > or <
Acetone (1)	6.5	<
Tertiary-butyl Alcohol (1)	4.5	<
Trichloroethene (1)	0.23	<
Acetone (2)	6.1	<
Tertiary-Butyl Alcohol (2)	2.5	<
cis-1,2-Dichloroethene (3)	0.18	<
Tertiary-butyl Alcohol (3)	3.7	<
Trichloroethene (3)	0.16	<

(1) - Maximum concentration detected in trip blank, TB-052318, affecting samples collected on 05/23/2018.
(2) - Maximum concentration detected in trip blank, TB-052518, affecting samples collected on 05/25/2018.
(3) - Maximum concentration detected in trip blank, TB-053018, affecting samples collected on 05/30/2018.

The detected result reported below the RL for trichloroethene in sample DMW-1S-053018 was qualified as non-detected, (U).

- The following analytes were detected in the laboratory preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration (µg/L)	RL	> or <
Selenium (1)	2.21		<
Thallium (2)	0.201		<
Silver (2)	0.083		<
Copper (3)	4.7		>
Copper (4)	1.96		<
Iron (4)	53.5		<

(1) - Maximum concentration detected in the laboratory method blank, MB 240-329558/1-A, affecting samples associated with preparation batch #240-329558.
(2) - Maximum concentration detected in the continuing calibration blanks affecting samples associated with analytical batch #240-330946.
(3) - Maximum concentration detected in the laboratory method blank, MB 240-329145/1-A, affecting samples associated with preparation batch #240-329145.
(4) - Maximum concentration detected in the laboratory method blank, MB 240-329350/1-A, affecting samples associated with preparation batch #240-329350.

The detected results for reported the below the RL were qualified as non-detected, (U). No action was taken for the copper results associated with preparation batch #240-329145 because the reported sample results were non-detected.

- The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses associated with preparation batch #240-328941 had Percent Recoveries (%Rs) for cobalt, chromium, nickel, and lead below the 75% quality control limit. The Post Digestion Spike (PDS) %Rs were also low for these analytes. The samples associated with this preparation batch were affected. The detected results reported for these analytes in the affected samples were qualified either estimated, (J), due to conflicting directional bias, or estimated with a low bias, (J-). The non-detected results in the affected samples were qualified as estimated, (UJ).

- The MS/MSD analyses associated with preparation batch #240-329151 had %Rs for mercury below the 80% quality control limit. The non-detected total and dissolved mercury results were qualified as estimated, (UJ), in the samples associated with this preparation batch.

- The dissolved MS/MSD analyses associated with preparation batch #240-329558 had a %R for manganese below 75%. The PDS %R for manganese was high. The total MS/MSD analyses analyzed with this preparation batch had acceptable %Rs, therefore, only the dissolved samples were affected. The detected dissolved manganese results in the affected samples were qualified as estimated, (J).

- The serial dilution analyses associated with preparation batch #240-328941 had %Ds greater than 10% for cobalt, copper, manganese, and nickel. The samples associated with this preparation batch were affected. The detected and non-detected results reported for these analytes in the affected samples were qualified as estimated, (J) and (UJ), respectively.

- 2-Methylpentane was detected as a Tentatively Identified Compound (TIC) in sample DMW-10S-052418. The GC/MS instrument was not calibrated for this compound, therefore, the TIC was qualified as estimated presumptively present, (NJ).

- A TIC search was performed for the compound chlorodifluoromethane. The laboratory did not detect this compound in the samples in this SDG. The laboratory assigned a Reporting Limit (RL) of 1 µg/L. Because the GC/MS was not calibrated for this compound, the RL is not considered precise. The non-detected results reported for chlorodifluoromethane were qualified as estimated, (UJ).

- Detected results reported below the RL but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The trip blank listed on the sample Chain of Custody (COC) on 05/29/2018 was not received by the laboratory.

The VOC Laboratory Control Sample (LCS) analysis associated with preparation batch #240-329778 had a %R for 1,1,2-trichlorotrifluoroethane above the upper quality control limit. No action was necessary because this compound was not detected in the samples associated with this preparation batch.

The MS/MSD performed on sample MSA-MW-19D-053018 did not recover 2-chloroethyl vinyl ether. No action was taken for 2-chloroethyl vinyl ether because this result was rejected due to sample preservation.

The following samples were analyzed at dilutions:

Sample	Dilution	Fraction
DMW-10I-052418	4X	VOCs
DMW-1A-053018	100X	VOCs
DMW-1B-053018	40X	VOCs
MSA-MW-21I-052418	12.5X	VOCs
MSA-MW-24I-052318	8.33X	VOCs
MSA-MW-30I-052318	8.33X	VOCs
MSA-MW-33S-052518	12.5X	VOCs
MSA-MW-45S-052318	1000X	VOCs
MSA-MW-54I-052918	1000X	VOCs
MSA-MW-54S-052918	1250X	VOCs
DMW-1A-053018	2.5X	1,4-Dioxane
MSA-MW-45S-052318	50X	1,4-Dioxane
MSA-MW-54I-052918	4X	1,4-Dioxane
MSA-MW-54S-052918	25X	1,4-Dioxane
MSA-MW-45S-052318	20X	GRO
MSA-MW-54S-052918	50X	GRO

The RLs of the non-detected results were elevated in the VOC fraction.

The total and dissolved iron results were reported from the 5X and 10X dilutions, respectively, for sample MSA-MW-24S-052318.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: 2-Chloroethyl vinyl ether results were rejected due to acid sample preservation. VOC continuing calibration %Ds exceeded 20%. Contaminants were detected in the metals laboratory method/preparation blanks. The VOC LCS analyses had noncompliant %Rs. Serial dilution %Ds exceeded 10%.

Other Factors Affecting Data Quality: Contaminants were detected in the trip blanks. Metals MS/MSD analyses had noncompliant %Rs. Some samples required dilutions. One TIC was detected. Results below the RL were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Review" (January 2017) and the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Michelle L. Woeber

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Michelle L. Woeber
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Joseph A. Samchuck

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Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.56	U		0.14	U		14	U		5.6	U	
1,1,1-TRICHLOROETHANE		0.96	U		0.24	U		24	U		9.6	U	
1,1,2,2-TETRACHLOROETHANE		0.52	U		0.13	U		13	U		5.2	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.6	UJ	C	0.41	UJ	C	41	U		16	U	
1,1-DICHLOROETHANE		0.68	U		0.17	U		17	U		6.8	U	
1,1-DICHLOROETHENE		2	J	P	0.19	U		19	U		7.6	U	
1,1-DICHLOROPROPENE		0.56	U		0.14	U		14	U		5.6	U	
1,2,3-TRICHLOROBENZENE		2.2	U		0.54	U		54	UJ	C	22	UJ	C
1,2,3-TRICHLOROPROPANE		0.96	U		0.24	U		24	U		9.6	U	
1,2,3-TRIMETHYLBENZENE		0.56	U		0.14	U		14	U		5.6	U	
1,2,4-TRICHLOROBENZENE		1	U		0.26	U		26	U		10	U	
1,2,4-TRIMETHYLBENZENE		0.28	U		0.07	U		7	U		2.8	U	
1,2-DIBROMO-3-CHLOROPROPANE		3.6	U		0.91	U		91	U		36	U	
1,2-DIBROMOETHANE		0.48	U		0.12	U		12	U		4.8	U	
1,2-DICHLOROBENZENE		0.6	U		1.6			15	U		6	U	
1,2-DICHLOROETHANE		2.9	J	P	0.21	U		22	J	P	8.4	U	
1,2-DICHLOROPROPANE		0.6	U		0.15	U		15	U		6	U	
1,3-DICHLOROBENZENE		0.6	U		0.15	U		15	U		6	U	
1,3-DICHLOROPROPANE		0.84	U		0.56	J	P	21	U		8.4	U	
1,4-DICHLOROBENZENE		0.64	U		0.39	J	P	16	U		6.4	U	
2,2-DICHLOROPROPANE		1.2	U		0.31	U		31	U		12	U	
2-BUTANONE		4.6	U		1.2	U		120	U		46	U	
2-CHLOROETHYL VINYL ETHER		1	UR	M	0.26	UR	M	26	UR	M	10	UR	M
2-CHLOROTOLUENE		0.6	U		0.15	U		15	U		6	U	
2-HEXANONE		2.2	U		0.54	U		54	U		22	U	
4-CHLOROTOLUENE		0.36	U		0.09	U		9	U		3.6	U	
4-ISOPROPYLTOLUENE		0.52	U		0.13	U		13	U		5.2	U	
4-METHYL-2-PENTANONE		1.7	U		0.42	U		42	U		17	U	
ACETONE		22	U		5.4	U		540	U		220	U	
BENZENE		0.57	J	P	2.1			15	J	P	12	J	P
BROMOBENZENE		0.48	U		0.12	U		12	U		4.8	U	
BROMOCHLOROMETHANE		0.56	U		0.14	U		14	U		5.6	U	
BROMODICHLOROMETHANE		0.68	U		0.17	U		17	U		6.8	U	
BROMOFORM		3	U		0.76	U		76	U		30	U	
BROMOMETHANE		1.7	U		0.42	U		42	U		17	U	

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: OV	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	UJ	C	0.54	U		0.54	U		0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		1.8	U		1.2	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		3	U		2	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		1.6	U		1.1	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	UJ	C	5.1	UJ	C	3.4	UJ	C	0.41	UJ	C
1,1-DICHLOROETHANE		0.17	U		2.1	U		1.4	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		3.4	J	P	1.6	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		1.8	U		1.2	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		6.8	U		4.5	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		3	U		2	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		1.8	U		1.2	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		3.3	U		2.2	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.88	U		0.58	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		11	U		7.6	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		1.5	U		1	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		1.9	U		1.2	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		2.6	U		1.7	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		1.9	U		1.2	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		1.9	U		1.2	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		2.6	U		1.7	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		2	U		1.3	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		3.9	U		2.6	U		0.31	U	
2-BUTANONE		1.2	U		15	U		9.7	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	3.3	UR	M	2.2	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		1.9	U		1.2	U		0.15	U	
2-HEXANONE		0.54	U		6.8	U		4.5	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		1.1	U		0.75	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		1.6	U		1.1	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		5.3	U		3.5	U		0.42	U	
ACETONE		5.4	U		68	U		45	U		5.4	U	
BENZENE		0.13	U		1.6	U		1.1	U		0.19	J	P
BROMOBENZENE		0.12	U		1.5	U		1	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		1.8	U		1.2	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		2.1	U		1.4	U		0.17	U	
BROMOFORM		0.76	U		9.5	U		6.3	U		0.76	U	
BROMOMETHANE		0.42	U		5.3	U		3.5	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: OV	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		1.2	U		0.14	U		1.8	U	
1,1,1-TRICHLOROETHANE		0.24	U		2	U		0.24	U		3	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		1.1	U		0.13	U		1.6	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		3.4	UJ	C	0.41	U		5.1	U	
1,1-DICHLOROETHANE		0.17	U		1.4	U		0.17	U		2.1	U	
1,1-DICHLOROETHENE		0.19	U		1.6	U		0.19	U		4.2	J	P
1,1-DICHLOROPROPENE		0.14	U		1.2	U		0.14	U		1.8	U	
1,2,3-TRICHLOROBENZENE		0.54	U		4.5	U		0.54	U		6.8	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		2	U		0.24	U		3	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		1.2	U		0.14	U		1.8	U	
1,2,4-TRICHLOROBENZENE		0.26	U		2.2	U		0.26	U		3.3	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.58	U		0.07	U		0.88	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		7.6	U		0.91	U		11	U	
1,2-DIBROMOETHANE		0.12	U		1	U		0.12	U		1.5	U	
1,2-DICHLOROBENZENE		0.15	U		1.2	U		0.15	U		1.9	U	
1,2-DICHLOROETHANE		0.21	U		1.7	U		0.21	U		2.6	U	
1,2-DICHLOROPROPANE		0.15	U		1.2	U		0.15	U		1.9	U	
1,3-DICHLOROBENZENE		0.15	U		1.2	U		0.15	U		1.9	U	
1,3-DICHLOROPROPANE		0.21	U		1.7	U		0.21	U		2.6	U	
1,4-DICHLOROBENZENE		0.16	U		1.3	U		0.16	U		2	U	
2,2-DICHLOROPROPANE		0.31	U		2.6	U		0.31	U		3.9	U	
2-BUTANONE		1.2	U		9.7	U		1.2	U		15	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	2.2	UR	M	0.26	UR	M	3.3	UR	M
2-CHLOROTOLUENE		0.15	U		1.2	U		0.15	U		1.9	U	
2-HEXANONE		0.54	U		4.5	U		0.54	U		6.8	U	
4-CHLOROTOLUENE		0.09	U		0.75	U		0.09	U		1.1	U	
4-ISOPROPYLTOLUENE		0.13	U		1.1	U		0.13	U		1.6	U	
4-METHYL-2-PENTANONE		0.42	U		3.5	U		0.42	U		5.3	U	
ACETONE		5.4	U		45	U		5.4	U		68	U	
BENZENE		0.13	U		1.1	U		0.13	U		7.2	J	P
BROMOBENZENE		0.12	U		1	U		0.12	U		1.5	U	
BROMOCHLOROMETHANE		0.14	U		1.2	U		0.14	U		1.8	U	
BROMODICHLOROMETHANE		0.17	U		1.4	U		0.17	U		2.1	U	
BROMOFORM		0.76	U		6.3	U		0.76	U		9.5	U	
BROMOMETHANE		0.42	U		3.5	U		0.42	U		5.3	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918			TB-052318		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4			240-96144-1		
FRACTION: OV	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		140	U		140	U		180	U		0.14	U	
1,1,1-TRICHLOROETHANE		240	U		240	U		300	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		130	U		130	U		160	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		410	UJ	C	410	U		510	U		0.41	UJ	C
1,1-DICHLOROETHANE		170	U		170	U		210	U		0.17	U	
1,1-DICHLOROETHENE		190	U		190	U		240	U		0.19	U	
1,1-DICHLOROPROPENE		140	U		140	U		180	U		0.14	U	
1,2,3-TRICHLOROBENZENE		540	U		540	U		680	U		0.54	U	
1,2,3-TRICHLOROPROPANE		240	U		240	U		300	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		140	U		140	U		180	U		0.14	U	
1,2,4-TRICHLOROBENZENE		990	J	P	260	U		330	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		70	U		70	U		88	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		910	U		910	U		1100	U		0.91	U	
1,2-DIBROMOETHANE		120	U		120	U		150	U		0.12	U	
1,2-DICHLOROBENZENE		150	U		150	U		190	U		0.15	U	
1,2-DICHLOROETHANE		480	J	P	210	U		260	U		0.21	U	
1,2-DICHLOROPROPANE		150	U		150	U		190	U		0.15	U	
1,3-DICHLOROBENZENE		150	U		150	U		190	U		0.15	U	
1,3-DICHLOROPROPANE		210	U		210	U		260	U		0.21	U	
1,4-DICHLOROBENZENE		210	J	P	160	U		200	U		0.16	U	
2,2-DICHLOROPROPANE		310	U		310	U		390	U		0.31	U	
2-BUTANONE		1200	U		1200	U		1500	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		260	UR	M	260	UR	M	330	UR	M	0.26	UR	M
2-CHLOROTOLUENE		150	U		150	U		190	U		0.15	U	
2-HEXANONE		540	U		540	U		680	U		0.54	U	
4-CHLOROTOLUENE		90	U		90	U		110	U		0.09	U	
4-ISOPROPYLTOLUENE		130	U		130	U		160	U		0.13	U	
4-METHYL-2-PENTANONE		420	U		420	U		530	U		0.42	U	
ACETONE		5400	U		5400	U		6800	U		6.5	J	P
BENZENE		170	J	P	130	U		160	U		0.13	U	
BROMOBENZENE		120	U		120	U		150	U		0.12	U	
BROMOCHLOROMETHANE		140	U		140	U		180	U		0.14	U	
BROMODICHLOROMETHANE		170	U		170	U		210	U		0.17	U	
BROMOFORM		760	U		760	U		950	U		0.76	U	
BROMOMETHANE		420	U		420	U		530	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	TB-052518			TB-053018		
SDG: 240-96144-1	LAB_ID	240-96206-1			240-96362-1		
FRACTION: OV	SAMP_DATE	5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	TB			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	UJ	C
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U	
ACETONE		6.1	J	P	5.4	U	
BENZENE		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		1.1	U		0.28	U		28	U		11	U	
CARBON TETRACHLORIDE		4.4			0.26	U		26	U		10	U	
CHLOROBENZENE		0.56	U		0.14	U		14	U		5.6	U	
CHLORODIBROMOMETHANE		1.6	U		0.39	U		39	U		16	U	
CHLORODIFLUOROMETHANE		4	UJ	Q	1	UJ	Q	100	UJ	Q	40	UJ	Q
CHLOROETHANE		3.3	U		0.83	U		83	U		33	U	
CHLOROFORM		3.7	J	P	0.13	U		13	U		5.2	U	
CHLOROMETHANE		0.8	U		0.2	U		20	U		8	U	
CIS-1,2-DICHLOROETHENE		110			0.22	J	P	2600			330		
CIS-1,3-DICHLOROPROPENE		2.4	U		0.61	U		61	U		24	U	
DIBROMOMETHANE		0.36	U		0.09	U		9	U		3.6	U	
DICHLORODIFLUOROMETHANE		1.4	UJ	C	0.57	J	CP	35	U		14	U	
DIISOPROPYL ETHER		0.68	U		0.17	U		17	U		6.8	U	
ETHYL TERT-BUTYL ETHER		0.6	U		0.15	U		15	U		6	U	
ETHYLBENZENE		0.44	U		0.11	U		11	U		4.4	U	
HEXACHLOROBUTADIENE		3.3	U		0.83	U		83	UJ	C	33	UJ	C
ISOPROPYLBENZENE		0.36	U		0.13	J	P	9	U		3.6	U	
M+P-XYLENES		0.32	U		0.17	J	P	8	U		3.2	U	
METHYL TERT-BUTYL ETHER		0.28	U		0.07	U		7	U		2.8	U	
METHYLENE CHLORIDE		10	U		2.6	U		260	U		100	U	
NAPHTHALENE		1.3	U		0.32	U		32	U		13	U	
N-BUTYLBENZENE		0.56	U		0.14	U		14	U		5.6	U	
N-PROPYLBENZENE		0.6	U		0.15	U		15	U		6	U	
O-XYLENE		0.36	U		0.09	U		9	U		3.6	U	
SEC-BUTYLBENZENE		0.52	U		0.86	J	P	13	U		5.2	U	
STYRENE		0.4	U		0.1	U		10	U		4	U	
TERT-AMYL METHYL ETHER		0.44	U		0.11	U		11	U		4.4	U	
TERT-BUTYLBENZENE		0.56	U		0.77	J	P	14	U		5.6	U	
TERTIARY-BUTYL ALCOHOL		6.8	U		1.7	U		170	U		68	U	
TETRACHLOROETHENE		0.6	U		0.15	U		15	U		6	U	
TOLUENE		0.56	U		0.14	U		18	J	P	5.6	U	
TOTAL XYLENES		0.6	U		0.17	J	P	15	U		6	U	
TRANS-1,2-DICHLOROETHENE		1.1	J	P	1.9			25	J	P	7.6	U	
TRANS-1,3-DICHLOROPROPENE		2.7	U		0.67	U		67	U		27	U	
TRICHLOROETHENE		170			0.27	J	P	2200			180		

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: OV	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.59	J	P
CHLOROBENZENE		0.68	J	P	0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.32	J	P
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		1.5			0.16	U		0.26	J	P	1.6		
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	U		0.83	U		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.12	U	B	0.1	U		0.6	J	P	16		

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		3.5	U		2.3	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		3.3	U		88			0.26	U	
CHLOROBENZENE		0.14	U		1.8	U		1.2	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		4.9	U		3.2	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	13	UJ	Q	8.3	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		10	U		6.9	U		0.83	U	
CHLOROFORM		0.13	U		1.6	U		3.4	J	P	0.13	U	
CHLOROMETHANE		0.2	U		2.5	U		1.7	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.27	J	P	370			1.9	J	P	0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		7.6	U		5.1	U		0.61	U	
DIBROMOMETHANE		0.09	U		1.1	U		0.75	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	4.4	UJ	C	2.9	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		2.1	U		1.4	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		1.9	U		1.2	U		0.15	U	
ETHYLBENZENE		0.11	U		1.4	U		0.92	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	U		10	U		6.9	U		0.83	U	
ISOPROPYLBENZENE		0.09	U		1.1	U		0.75	U		0.09	U	
M+P-XYLENES		0.08	U		1	U		0.67	U		0.12	J	P
METHYL TERT-BUTYL ETHER		0.07	U		0.88	U		0.58	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		33	U		22	U		2.6	U	
NAPHTHALENE		0.32	U		4	U		2.7	U		0.32	U	
N-BUTYLBENZENE		0.14	U		1.8	U		1.2	U		0.14	U	
N-PROPYLBENZENE		0.15	U		1.9	U		1.2	U		0.15	U	
O-XYLENE		0.09	U		1.1	U		0.75	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		1.6	U		1.1	U		0.13	U	
STYRENE		0.1	U		1.3	U		0.83	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		1.4	U		0.92	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		1.8	U		1.2	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		21	U		14	U		1.7	U	
TETRACHLOROETHENE		0.15	U		1.9	U		1.2	U		0.15	U	
TOLUENE		0.14	U		1.8	U		1.2	U		0.14	U	
TOTAL XYLENES		0.15	U		1.9	U		1.2	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		2.9	J	P	1.6	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		8.4	U		5.6	U		0.67	U	
TRICHLOROETHENE		0.51	J	P	110			290			0.1	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: OV	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		2.3	U		0.28	U		3.5	U	
CARBON TETRACHLORIDE		0.26	U		9.5			0.26	U		3.3	U	
CHLOROBENZENE		0.14	U		1.2	U		0.14	U		1.8	U	
CHLORODIBROMOMETHANE		0.39	U		3.2	U		0.39	U		4.9	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	8.3	UJ	Q	1	UJ	Q	13	UJ	Q
CHLOROETHANE		0.83	U		6.9	U		0.83	U		10	U	
CHLOROFORM		0.13	U		2.8	J	P	0.13	U		1.6	U	
CHLOROMETHANE		0.2	U		1.7	U		0.2	U		2.5	U	
CIS-1,2-DICHLOROETHENE		1.3			1.7	J	P	0.16	U		360		
CIS-1,3-DICHLOROPROPENE		0.61	U		5.1	U		0.61	U		7.6	U	
DIBROMOMETHANE		0.09	U		0.75	U		0.09	U		1.1	U	
DICHLORODIFLUOROMETHANE		0.35	U		2.9	UJ	C	0.35	U		4.4	U	
DIISOPROPYL ETHER		0.17	U		1.4	U		0.17	U		2.1	U	
ETHYL TERT-BUTYL ETHER		0.15	U		1.2	U		0.15	U		1.9	U	
ETHYLBENZENE		0.11	U		0.92	U		0.11	U		1.4	U	
HEXACHLOROBUTADIENE		0.83	U		6.9	U		0.83	U		10	UJ	C
ISOPROPYLBENZENE		0.09	U		0.75	U		0.09	U		1.1	U	
M+P-XYLENES		0.08	U		0.67	U		0.08	U		1	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.58	U		0.07	U		0.88	U	
METHYLENE CHLORIDE		2.6	U		22	U		2.6	U		33	U	
NAPHTHALENE		0.32	U		2.7	U		0.32	U		4	U	
N-BUTYLBENZENE		0.14	U		1.2	U		0.14	U		1.8	U	
N-PROPYLBENZENE		0.15	U		1.2	U		0.15	U		1.9	U	
O-XYLENE		0.09	U		0.75	U		0.09	U		1.1	U	
SEC-BUTYLBENZENE		0.13	U		1.1	U		0.13	U		1.6	U	
STYRENE		0.1	U		0.83	U		0.1	U		1.3	U	
TERT-AMYL METHYL ETHER		0.11	U		0.92	U		0.11	U		1.4	U	
TERT-BUTYLBENZENE		0.14	U		1.2	U		0.14	U		1.8	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		14	U		1.7	U		21	U	
TETRACHLOROETHENE		0.15	U		1.2	U		0.15	U		1.9	U	
TOLUENE		0.14	U		1.2	U		0.14	U		1.8	U	
TOTAL XYLENES		0.15	U		1.2	U		0.15	U		1.9	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		1.6	U		0.19	U		3.7	J	P
TRANS-1,3-DICHLOROPROPENE		0.67	U		5.6	U		0.67	U		8.4	U	
TRICHLOROETHENE		0.15	J	P	230			0.19	J	P	380		

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918			TB-052318		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4			240-96144-1		
FRACTION: OV	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		280	U		280	U		350	U		0.28	U	
CARBON TETRACHLORIDE		260	U		5500			4300			0.26	U	
CHLOROBENZENE		160	J	P	140	U		180	U		0.14	U	
CHLORODIBROMOMETHANE		390	U		390	U		490	U		0.39	U	
CHLORODIFLUOROMETHANE		1000	UJ	Q	1000	UJ	Q	1300	UJ	Q	1	UJ	Q
CHLOROETHANE		830	U		830	U		1000	U		0.83	U	
CHLOROFORM		130	U		1800			3200			0.13	U	
CHLOROMETHANE		200	U		200	U		250	U		0.2	U	
CIS-1,2-DICHLOROETHENE		21000			4000			27000			0.16	U	
CIS-1,3-DICHLOROPROPENE		610	U		610	U		760	U		0.61	U	
DIBROMOMETHANE		90	U		90	U		110	U		0.09	U	
DICHLORODIFLUOROMETHANE		350	UJ	C	350	U		440	U		0.35	UJ	C
DIISOPROPYL ETHER		170	U		170	U		210	U		0.17	U	
ETHYL TERT-BUTYL ETHER		150	U		150	U		190	U		0.15	U	
ETHYLBENZENE		110	U		110	U		140	U		0.11	U	
HEXACHLOROBUTADIENE		830	U		830	U		1000	U		0.83	U	
ISOPROPYLBENZENE		90	U		90	U		110	U		0.09	U	
M+P-XYLENES		80	U		80	U		170	J	P	0.08	U	
METHYL TERT-BUTYL ETHER		70	U		70	U		88	U		0.07	U	
METHYLENE CHLORIDE		2600	U		2600	U		3300	U		2.6	U	
NAPHTHALENE		320	U		320	U		400	U		0.32	U	
N-BUTYLBENZENE		140	U		140	U		180	U		0.14	U	
N-PROPYLBENZENE		150	U		150	U		190	U		0.15	U	
O-XYLENE		90	U		90	U		110	U		0.09	U	
SEC-BUTYLBENZENE		130	U		130	U		160	U		0.13	U	
STYRENE		100	U		100	U		130	U		0.1	U	
TERT-AMYL METHYL ETHER		110	U		110	U		140	U		0.11	U	
TERT-BUTYLBENZENE		140	U		140	U		180	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1700	U		1700	U		2100	U		4.5	J	P
TETRACHLOROETHENE		150	U		150	U		190	U		0.15	U	
TOLUENE		920	J	P	1700			18000			0.14	U	
TOTAL XYLENES		150	U		150	U		190	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		190	U		190	U		240	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		670	U		670	U		840	U		0.67	U	
TRICHLOROETHENE		35000			18000			37000			0.23	J	P

PROJ_NO: 08424	NSAMPLE	TB-052518			TB-053018		
SDG: 240-96144-1	LAB_ID	240-96206-1			240-96362-1		
FRACTION: OV	SAMP_DATE	5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	TB			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.18	J	P
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	U		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		2.5	J	P	3.7	J	P
TETRACHLOROETHENE		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.16	J	P

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		1.8	UJ	C	0.45	UJ	C	45	U		18	U	
VINYL ACETATE		0.76	U		0.19	U		19	U		7.6	U	
VINYL CHLORIDE		24			0.8	J	CP	1300			1000		

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: OV	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.71	J	P	0.2	U		0.2	U		0.3	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: OV	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	UJ	C	5.6	UJ	C	3.7	UJ	C	0.45	UJ	C
VINYL ACETATE		0.19	U		2.4	U		1.6	U		0.19	U	
VINYL CHLORIDE		0.2	UJ	C	100			1.7	UJ	C	0.2	UJ	C

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: OV	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		3.7	UJ	C	0.45	U		5.6	U	
VINYL ACETATE		0.19	U		1.6	U		0.19	U		2.4	U	
VINYL CHLORIDE		0.27	J	P	1.7	UJ	C	0.2	U		64		

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918			TB-052318		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4			240-96144-1		
FRACTION: OV	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		450	UJ	C	450	U		560	U		0.45	UJ	C
VINYL ACETATE		190	U		190	U		240	U		0.19	U	
VINYL CHLORIDE		13000			240	J	P	2200			0.2	UJ	C

PROJ_NO: 08424	NSAMPLE	TB-052518			TB-053018		
SDG: 240-96144-1	LAB_ID	240-96206-1			240-96362-1		
FRACTION: OV	SAMP_DATE	5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	TB			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U	

PROJ_NO: 08424	NSAMPLE	DMW-10S-052418		
SDG: 240-96144-1	LAB_ID	240-96144-6		
FRACTION: TICOV	SAMP_DATE	5/24/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
PENTANE, 2-METHYL-		3.2	NJ	Z1

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: OS	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		13			7.4			71			31		

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: OS	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		8.4			0.36	U		0.36	U		0.37	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: OS	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.37	U		2.2			0.36	U		1.4		

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: OS	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.37	U		0.34	U		0.36	U		0.36	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4		
FRACTION: OS	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		650			82			510		

PROJ_NO: 08424	NSAMPLE	DMW-10S-052418			DMW-1S-053018			MSA-MW-24S-052318			MSA-MW-3-052918		
SDG: 240-96144-1	LAB_ID	240-96144-6			240-96362-2			240-96144-2			240-96257-2		
FRACTION: PET	SAMP_DATE	5/24/2018			5/30/2018			5/23/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		90	J	P	49	U		49	U		49	U	
TPH (C10-C32)		1600			210	U		380	J	P	200	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-33S-052518			MSA-MW-45S-052318			MSA-MW-54S-052918		
SDG: 240-96144-1	LAB_ID	240-96206-2			240-96144-5			240-96257-4		
FRACTION: PET	SAMP_DATE	5/25/2018			5/23/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		460			25000			94000		
TPH (C10-C32)		230	U		3200			3200		

PROJ_NO: 08424	NSAMPLE	MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-21I-052418			MSA-MW-24I-052318		
SDG: 240-96144-1	LAB_ID	240-96206-5			240-96206-4			240-96144-8			240-96144-3		
FRACTION: MISC	SAMP_DATE	5/25/2018			5/25/2018			5/24/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.83			0.082	U		0.082	U		0.082	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-54I-052918			MSA-MW-54S-052918		
SDG: 240-96144-1	LAB_ID	240-96257-3			240-96257-4		
FRACTION: MISC	SAMP_DATE	5/29/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.12	J	P	0.082	U	

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: M	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		14			15			10			1.2	J	P
BARIUM		50			21			19			22		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.32	J	P	0.42	J	P	260			86		
CHROMIUM		3.1	J-	D	1.5	J	DP	11			2.3		
COBALT		11	J	DI	3.3	J	DI	27			25		
COPPER		4	J	I	1.7	UJ	I	7			15		
IRON		10000			57000			31000			20000		
LEAD		1.4	J-	D	0.45	UJ	D	0.45	U		0.57	J	P
MANGANESE		260	J	I	1400	J	I	3200			3300		
MERCURY		0.13	U		0.13	U		0.18	J	P	0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		7.7	J	DI	1.5	UJ	DI	52			20		
SELENIUM		1.1	J	P	1.3	J	P	3	U	A	2.8	U	A
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		6			0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: M	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		3.1			0.57	U		0.57	U		0.57	U	
ARSENIC		1.5	J	P	0.75	U		2.2	J	P	2.1	J	P
BARIUM		44			4.1	J	P	23			51		
BERYLLIUM		0.31	U		0.31	U		0.31	U		2.4		
CADMIUM		1.4			0.21	U		0.21	U		2		
CHROMIUM		0.98	U		1.2	J	P	0.98	U		4.1		
COBALT		0.41	J	P	12			2.4			220		
COPPER		12			5.1			4.3			23		
IRON		600			390			1000			530		
LEAD		11			0.45	U		0.45	U		0.57	J	P
MANGANESE		22			30			1400			2500		
MERCURY		0.13	U		0.13	UJ	D	0.13	UJ	D	0.13	U	
MOLYBDENUM		1.1	U		1.1	U		3.4	J	P	1.1	U	
NICKEL		1.8	J	P	17			4			110		
SELENIUM		1.6	U	A	0.89	U		0.89	U		3.3	U	A
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.34	J	P
VANADIUM		1.3	J	P	0.82	U		0.82	U		1.3	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: M	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.59	J	P
ARSENIC		3	J	P	13			0.75	U		0.75	U	
BARIUM		49			29			6.3			27		
BERYLLIUM		0.31	U		0.31	U		0.51	J	P	8.9		
CADMIUM		0.21	U		0.21	U		0.21	U		3.9		
CHROMIUM		5.7	J-	D	0.98	UJ	D	1.1	J	DP	18	J-	D
COBALT		2.4	J	DI	5.1	J	DI	4.2	J	DI	480	J	DI
COPPER		7.3	J	I	1.9	J	IP	7.5	J	I	240	J	I
IRON		690			18000			720			320000		
LEAD		1.4	J-	D	1.9	J-	D	0.45	U	D	0.68	J	DP
MANGANESE		19	J	I	400	J	I	58	J	I	7600	J	I
MERCURY		0.32			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.2	J	P	1.5	J	P	1.1	U		1.1	U	
NICKEL		5.2	J	DI	2.6	J	DI	2.6	J	DI	740	J	DI
SELENIUM		0.89	U		0.98	J	P	1.3	J	P	68		
SILVER		0.062	J	P	0.053	U		0.053	U		0.06	J	P
THALLIUM		0.2	U		0.2	U		0.2	U		1.1		
VANADIUM		5.4			0.91	J	P	0.82	U		180		

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: M	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.2	J	P	0.96	J	P	2.6	J	P	16		
BARIUM		26			27			42			27		
BERYLLIUM		0.4	J	P	0.31	U		0.31	U		0.51	J	P
CADMIUM		0.21	U		0.23	J	P	0.21	U		0.21	U	
CHROMIUM		1.4	J	P	1.5	J	DP	1	J	P	2.6		
COBALT		0.8	J	P	12	J	DI	3.4			31		
COPPER		14			8.5	J	I	9.7			1.9	J	P
IRON		2400			1000			820			11000		
LEAD		1.4			0.74	J	DP	0.52	J	P	0.45	U	
MANGANESE		62			81	J	I	53			55		
MERCURY		0.13	U		0.13	U		0.13	UJ	D	0.13	UJ	D
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		1.5	U		12	J	DI	6.1			25		
SELENIUM		0.89	U		1	J	P	0.89	U		0.89	U	
SILVER		0.053	U		0.071	J	P	0.14	J	P	0.094	J	P
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		3	J	P	3.3	J	P	0.99	J	P	2.2	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4		
FRACTION: M	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U	
ARSENIC		0.94	J	P	4.1	J	P	3.9	J	P
BARIUM		22			24			25		
BERYLLIUM		0.4	J	P	0.88	J	P	1.8		
CADMIUM		2600			41			250		
CHROMIUM		4000	J-	D	5			6		
COBALT		23	J	DI	170			88		
COPPER		9.4	J	I	1.7	U		1.7	U	
IRON		170			5000			14000		
LEAD		0.45	UJ	D	0.45	U		0.45	U	
MANGANESE		2600	J	I	3100			1800		
MERCURY		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.1	U		1.1	U	
NICKEL		130	J	DI	150			84		
SELENIUM		4.6	J	P	5.1			5.2		
SILVER		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.31	U	A
VANADIUM		67			0.82	U		1.3	J	P

PROJ_NO: 08424	NSAMPLE	DMW-10I-052418			DMW-10S-052418			DMW-1A-053018			DMW-1B-053018		
SDG: 240-96144-1	LAB_ID	240-96144-7			240-96144-6			240-96362-3			240-96362-4		
FRACTION: MF	SAMP_DATE	5/24/2018			5/24/2018			5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		15			15			10			1.6	J	P
BARIUM		50			21			18			23		
BERYLLIUM		0.31	U		0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.21	U		260			89		
CHROMIUM		1.4	J	DP	0.98	UJ	D	10			2.4		
COBALT		11	J	DI	3.2	J	DI	26			25		
COPPER		1.7	UJ	I	1.7	UJ	I	6.1			16		
IRON		11000			55000			30000			19000		
LEAD		0.45	UJ	D	0.45	UJ	D	0.45	U		0.55	J	P
MANGANESE		280	J	I	1300	J	I	3200	J	D	3200	J	D
MERCURY		0.13	U		0.13	U		0.13	J	P	0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		7.6	J	DI	1.5	UJ	DI	53			21		
SELENIUM		0.89	U		1.4	J	P	3.5	U	A	2.8	U	A
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		3.6	J	P	0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-1S-053018			MSA-MW-15D-052518			MSA-MW-15I-052518			MSA-MW-19D-053018		
SDG: 240-96144-1	LAB_ID	240-96362-2			240-96206-5			240-96206-4			240-96362-5		
FRACTION: MF	SAMP_DATE	5/30/2018			5/25/2018			5/25/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		2.8			0.57	U		0.57	U		0.57	U	
ARSENIC		2.1	J	P	0.75	U		2.2	J	P	1.8	J	P
BARIUM		49			4	J	P	23			57		
BERYLLIUM		0.31	U		0.31	U		0.31	U		2.5		
CADMIUM		1.2			0.21	U		0.21	U		2.1		
CHROMIUM		0.98	U		0.98	U		0.98	U		3.5		
COBALT		0.59	J	P	12			2.8			240		
COPPER		6.9			5.7			1.7	U		21		
IRON		910			95	J	P	1000			540		
LEAD		6.8			0.45	U		0.45	U		0.45	U	
MANGANESE		30	J	D	27			1500			2800	J	D
MERCURY		0.13	U		0.13	UJ	D	0.13	UJ	D	0.13	U	
MOLYBDENUM		1.1	U		1.1	U		3.4	J	P	1.1	U	
NICKEL		2.1			16			4.1			120		
SELENIUM		1.6	U	A	0.89	U		0.89	U		3.9	U	A
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.37	J	P
VANADIUM		1.5	J	P	0.82	U		0.82	U		1.2	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-21D-052418			MSA-MW-21I-052418			MSA-MW-24I-052318			MSA-MW-24S-052318		
SDG: 240-96144-1	LAB_ID	240-96144-9			240-96144-8			240-96144-3			240-96144-2		
FRACTION: MF	SAMP_DATE	5/24/2018			5/24/2018			5/23/2018			5/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		2.5	J	P	13			0.75	U		0.75	U	
BARIUM		40			27			6.5			25		
BERYLLIUM		0.31	U		0.31	U		0.49	J	P	8.9		
CADMIUM		0.21	U		0.21	U		0.21	U		3.7		
CHROMIUM		2	J-	D	0.98	UJ	D	0.98	UJ	D	18	J-	D
COBALT		1.6	J	DI	4.7	J	DI	4.1	J	DI	460	J	DI
COPPER		4.7	J	I	1.7	UJ	I	7.8	J	I	230	J	I
IRON		300			18000			47	U		330000		
LEAD		0.45	UJ	D	0.57	J	DP	0.45	UJ	D	0.54	J	DP
MANGANESE		16	J	I	410	J	I	57	J	I	7300	J	I
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.5	J	P	1.1	U		1.1	U	
NICKEL		3.3	J	DI	2.4	J	DI	2.6	J	DI	700	J	DI
SELENIUM		0.89	U		1.2	J	P	1.1	J	P	66		
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		1.1		
VANADIUM		3.1	J	P	0.82	U		0.82	U		170		

PROJ_NO: 08424	NSAMPLE	MSA-MW-3-052918			MSA-MW-30I-052318			MSA-MW-33I-052518			MSA-MW-33S-052518		
SDG: 240-96144-1	LAB_ID	240-96257-2			240-96144-4			240-96206-3			240-96206-2		
FRACTION: MF	SAMP_DATE	5/29/2018			5/23/2018			5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.1	J	P	1.1	J	P	1.8	J	P	15		
BARIUM		27			26			38			24		
BERYLLIUM		0.32	J	P	0.31	U		0.31	U		0.31	U	
CADMIUM		0.21	U		0.22	J	P	0.21	U		0.21	U	
CHROMIUM		1.4	J	P	1.3	J	DP	0.98	U		2.3		
COBALT		0.85	J	P	12	J	DI	2.2			28		
COPPER		2.6			7.8	J	I	7			1.7	U	
IRON		2300			410			180			10000		
LEAD		0.45	U		0.45	UJ	D	0.45	U		0.45	U	
MANGANESE		62			80	J	I	37			50		
MERCURY		0.13	U		0.13	U		0.13	UJ	D	0.13	UJ	D
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		1.6	J	P	13	J	DI	5			24		
SELENIUM		0.89	U		1.1	J	P	0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.086	J	P	0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		3.6	J	P	2.6	J	P	0.82	U		1.7	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-45S-052318			MSA-MW-54I-052918			MSA-MW-54S-052918		
SDG: 240-96144-1	LAB_ID	240-96144-5			240-96257-3			240-96257-4		
FRACTION: MF	SAMP_DATE	5/23/2018			5/29/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U	
ARSENIC		1.3	J	P	4.3	J	P	3.8	J	P
BARIUM		22			25			25		
BERYLLIUM		0.45	J	P	1.3			1.8		
CADMIUM		2900			40			250		
CHROMIUM		4800	J-	D	5.2			5.9		
COBALT		25	J	DI	170			88		
COPPER		10	J	I	1.7	U		6.4		
IRON		47	U		5000			15000		
LEAD		0.45	UJ	D	0.45	U		0.45	U	
MANGANESE		2700	J	I	3000			1900		
MERCURY		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	J	P	1.1	U		1.1	U	
NICKEL		150	J	DI	140			84		
SELENIUM		5			6			5.4		
SILVER		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.27	U	A	0.29	U	A
VANADIUM		100			0.82	U		0.82	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052318 | Lab Sample ID: 240-96144-1

Matrix: Water | Lab File ID: U1264119.D

Analysis Method: 8260C | Date Collected: 05/23/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	6.5	J	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052318 | Lab Sample ID: 240-96144-1

Matrix: Water | Lab File ID: U1264119.D

Analysis Method: 8260C | Date Collected: 05/23/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	4.5	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.23	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052318 Lab Sample ID: 240-96144-1

Matrix: Water Lab File ID: U1264119.D

Analysis Method: 8260C Date Collected: 05/23/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 15:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	107		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052318 | Lab Sample ID: 240-96144-1

Matrix: Water | Lab File ID: U1264119.D

Analysis Method: 8260C | Date Collected: 05/23/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052318 | Lab Sample ID: 240-96144-1

Matrix: Water | Lab File ID: U1264119.D

Analysis Method: 8260C | Date Collected: 05/23/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 | Lab Sample ID: 240-96144-2

Matrix: Water | Lab File ID: U1264120.D

Analysis Method: 8260C | Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.19	J	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 | Lab Sample ID: 240-96144-2

Matrix: Water | Lab File ID: U1264120.D

Analysis Method: 8260C | Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 15:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.12	J	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 Lab Sample ID: 240-96144-2

Matrix: Water Lab File ID: U1264120.D

Analysis Method: 8260C Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 15:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		73-120
1868-53-7	Dibromofluoromethane (Surr)	116		69-124
460-00-4	4-Bromofluorobenzene (Surr)	104		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 Lab Sample ID: 240-96144-2

Matrix: Water Lab File ID: U1264120.D

Analysis Method: 8260C Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 15:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 Lab Sample ID: 240-96144-2

Matrix: Water Lab File ID: U1264120.D

Analysis Method: 8260C Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 15:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: U1264121.D

Analysis Method: 8260C | Date Collected: 05/23/2018 10:06

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:05

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	8.3	1.2
71-55-6	1,1,1-Trichloroethane	2.0	U	8.3	2.0
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	8.3	1.1
76-13-1	1,1,2-Trichlorotrifluoroethane	3.4	U *	8.3	3.4
75-34-3	1,1-Dichloroethane	1.4	U	8.3	1.4
75-35-4	1,1-Dichloroethene	1.6	U	8.3	1.6
563-58-6	1,1-Dichloropropene	1.2	U	8.3	1.2
87-61-6	1,2,3-Trichlorobenzene	4.5	U	8.3	4.5
96-18-4	1,2,3-Trichloropropane	2.0	U	8.3	2.0
526-73-8	1,2,3-Trimethylbenzene	1.2	U	42	1.2
120-82-1	1,2,4-Trichlorobenzene	2.2	U	8.3	2.2
95-63-6	1,2,4-Trimethylbenzene	0.58	U	8.3	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	7.6	U	17	7.6
95-50-1	1,2-Dichlorobenzene	1.2	U	8.3	1.2
107-06-2	1,2-Dichloroethane	1.7	U	8.3	1.7
78-87-5	1,2-Dichloropropane	1.2	U	8.3	1.2
541-73-1	1,3-Dichlorobenzene	1.2	U	8.3	1.2
142-28-9	1,3-Dichloropropane	1.7	U	8.3	1.7
106-46-7	1,4-Dichlorobenzene	1.3	U	8.3	1.3
594-20-7	2,2-Dichloropropane	2.6	U	8.3	2.6
78-93-3	2-Butanone (MEK)	9.7	U	83	9.7
110-75-8	2-Chloroethyl vinyl ether	2.2	U	83	2.2
95-49-8	2-Chlorotoluene	1.2	U	8.3	1.2
591-78-6	2-Hexanone	4.5	U	83	4.5
106-43-4	4-Chlorotoluene	0.75	U	8.3	0.75
99-87-6	4-Isopropyltoluene	1.1	U	8.3	1.1
108-10-1	4-Methyl-2-pentanone (MIBK)	3.5	U	83	3.5
67-64-1	Acetone	45	U	83	45
71-43-2	Benzene	1.1	U	8.3	1.1
108-86-1	Bromobenzene	1.0	U	8.3	1.0
75-25-2	Bromoform	6.3	U	8.3	6.3
74-83-9	Bromomethane	3.5	U	8.3	3.5
75-15-0	Carbon disulfide	2.3	U	8.3	2.3
56-23-5	Carbon tetrachloride	88		8.3	2.2
108-90-7	Chlorobenzene	1.2	U	8.3	1.2
124-48-1	Chlorodibromomethane	3.2	U	8.3	3.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: U1264121.D

Analysis Method: 8260C | Date Collected: 05/23/2018 10:06

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:05

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	6.9	U	8.3	6.9
67-66-3	Chloroform	3.4	J	8.3	1.1
74-87-3	Chloromethane	1.7	U	8.3	1.7
156-59-2	cis-1,2-Dichloroethene	1.9	J	8.3	1.3
10061-01-5	cis-1,3-Dichloropropene	5.1	U	8.3	5.1
74-95-3	Dibromomethane	0.75	U	8.3	0.75
74-97-5	Bromochloromethane	1.2	U	8.3	1.2
75-71-8	Dichlorodifluoromethane	2.9	U	8.3	2.9
75-27-4	Bromodichloromethane	1.4	U	8.3	1.4
75-65-0	tert-Butyl alcohol	14	U	420	14
100-41-4	Ethylbenzene	0.92	U	8.3	0.92
87-68-3	Hexachlorobutadiene	6.9	U	8.3	6.9
108-20-3	Diisopropyl ether	1.4	U	83	1.4
98-82-8	Isopropylbenzene	0.75	U	8.3	0.75
1634-04-4	Methyl tert-butyl ether	0.58	U	8.3	0.58
75-09-2	Methylene Chloride	22	U	42	22
179601-23-1	m-Xylene & p-Xylene	0.67	U	17	0.67
91-20-3	Naphthalene	2.7	U	8.3	2.7
104-51-8	n-Butylbenzene	1.2	U	8.3	1.2
103-65-1	N-Propylbenzene	1.2	U	8.3	1.2
95-47-6	o-Xylene	0.75	U	8.3	0.75
135-98-8	sec-Butylbenzene	1.1	U	8.3	1.1
100-42-5	Styrene	0.83	U	8.3	0.83
994-05-8	Tert-amyl methyl ether	0.92	U	42	0.92
637-92-3	Ethyl tert-butyl ether	1.2	U	42	1.2
127-18-4	Tetrachloroethene	1.2	U	8.3	1.2
108-88-3	Toluene	1.2	U	8.3	1.2
156-60-5	trans-1,2-Dichloroethene	1.6	U	8.3	1.6
10061-02-6	trans-1,3-Dichloropropene	5.6	U	8.3	5.6
79-01-6	Trichloroethene	290		8.3	0.83
75-69-4	Trichlorofluoromethane	3.7	U	8.3	3.7
108-05-4	Vinyl acetate	1.6	U	17	1.6
75-01-4	Vinyl chloride	1.7	U	8.3	1.7
1330-20-7	Xylenes, Total	1.2	U	17	1.2
98-06-6	tert-Butylbenzene	1.2	U	8.3	1.2
106-93-4	1,2-Dibromoethane	1.0	U	8.3	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: U1264121.D

Analysis Method: 8260C | Date Collected: 05/23/2018 10:06

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:05

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	117		73-120
1868-53-7	Dibromofluoromethane (Surr)	124		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: U1264121.D

Analysis Method: 8260C | Date Collected: 05/23/2018 10:06

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:05

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: U1264121.D

Analysis Method: 8260C | Date Collected: 05/23/2018 10:06

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:05

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		8.3	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 | Lab Sample ID: 240-96144-4

Matrix: Water | Lab File ID: U1264122.D

Analysis Method: 8260C | Date Collected: 05/23/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:28

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	8.3	1.2
71-55-6	1,1,1-Trichloroethane	2.0	U	8.3	2.0
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	8.3	1.1
76-13-1	1,1,2-Trichlorotrifluoroethane	3.4	U *	8.3	3.4
75-34-3	1,1-Dichloroethane	1.4	U	8.3	1.4
75-35-4	1,1-Dichloroethene	1.6	U	8.3	1.6
563-58-6	1,1-Dichloropropene	1.2	U	8.3	1.2
87-61-6	1,2,3-Trichlorobenzene	4.5	U	8.3	4.5
96-18-4	1,2,3-Trichloropropane	2.0	U	8.3	2.0
526-73-8	1,2,3-Trimethylbenzene	1.2	U	42	1.2
120-82-1	1,2,4-Trichlorobenzene	2.2	U	8.3	2.2
95-63-6	1,2,4-Trimethylbenzene	0.58	U	8.3	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	7.6	U	17	7.6
95-50-1	1,2-Dichlorobenzene	1.2	U	8.3	1.2
107-06-2	1,2-Dichloroethane	1.7	U	8.3	1.7
78-87-5	1,2-Dichloropropane	1.2	U	8.3	1.2
541-73-1	1,3-Dichlorobenzene	1.2	U	8.3	1.2
142-28-9	1,3-Dichloropropane	1.7	U	8.3	1.7
106-46-7	1,4-Dichlorobenzene	1.3	U	8.3	1.3
594-20-7	2,2-Dichloropropane	2.6	U	8.3	2.6
78-93-3	2-Butanone (MEK)	9.7	U	83	9.7
110-75-8	2-Chloroethyl vinyl ether	2.2	U	83	2.2
95-49-8	2-Chlorotoluene	1.2	U	8.3	1.2
591-78-6	2-Hexanone	4.5	U	83	4.5
106-43-4	4-Chlorotoluene	0.75	U	8.3	0.75
99-87-6	4-Isopropyltoluene	1.1	U	8.3	1.1
108-10-1	4-Methyl-2-pentanone (MIBK)	3.5	U	83	3.5
67-64-1	Acetone	45	U	83	45
71-43-2	Benzene	1.1	U	8.3	1.1
108-86-1	Bromobenzene	1.0	U	8.3	1.0
75-25-2	Bromoform	6.3	U	8.3	6.3
74-83-9	Bromomethane	3.5	U	8.3	3.5
75-15-0	Carbon disulfide	2.3	U	8.3	2.3
56-23-5	Carbon tetrachloride	9.5		8.3	2.2
108-90-7	Chlorobenzene	1.2	U	8.3	1.2
124-48-1	Chlorodibromomethane	3.2	U	8.3	3.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 | Lab Sample ID: 240-96144-4

Matrix: Water | Lab File ID: U1264122.D

Analysis Method: 8260C | Date Collected: 05/23/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:28

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	6.9	U	8.3	6.9
67-66-3	Chloroform	2.8	J	8.3	1.1
74-87-3	Chloromethane	1.7	U	8.3	1.7
156-59-2	cis-1,2-Dichloroethene	1.7	J	8.3	1.3
10061-01-5	cis-1,3-Dichloropropene	5.1	U	8.3	5.1
74-95-3	Dibromomethane	0.75	U	8.3	0.75
74-97-5	Bromochloromethane	1.2	U	8.3	1.2
75-71-8	Dichlorodifluoromethane	2.9	U	8.3	2.9
75-27-4	Bromodichloromethane	1.4	U	8.3	1.4
75-65-0	tert-Butyl alcohol	14	U	420	14
100-41-4	Ethylbenzene	0.92	U	8.3	0.92
87-68-3	Hexachlorobutadiene	6.9	U	8.3	6.9
108-20-3	Diisopropyl ether	1.4	U	83	1.4
98-82-8	Isopropylbenzene	0.75	U	8.3	0.75
1634-04-4	Methyl tert-butyl ether	0.58	U	8.3	0.58
75-09-2	Methylene Chloride	22	U	42	22
179601-23-1	m-Xylene & p-Xylene	0.67	U	17	0.67
91-20-3	Naphthalene	2.7	U	8.3	2.7
104-51-8	n-Butylbenzene	1.2	U	8.3	1.2
103-65-1	N-Propylbenzene	1.2	U	8.3	1.2
95-47-6	o-Xylene	0.75	U	8.3	0.75
135-98-8	sec-Butylbenzene	1.1	U	8.3	1.1
100-42-5	Styrene	0.83	U	8.3	0.83
994-05-8	Tert-amyl methyl ether	0.92	U	42	0.92
637-92-3	Ethyl tert-butyl ether	1.2	U	42	1.2
127-18-4	Tetrachloroethene	1.2	U	8.3	1.2
108-88-3	Toluene	1.2	U	8.3	1.2
156-60-5	trans-1,2-Dichloroethene	1.6	U	8.3	1.6
10061-02-6	trans-1,3-Dichloropropene	5.6	U	8.3	5.6
79-01-6	Trichloroethene	230		8.3	0.83
75-69-4	Trichlorofluoromethane	3.7	U	8.3	3.7
108-05-4	Vinyl acetate	1.6	U	17	1.6
75-01-4	Vinyl chloride	1.7	U	8.3	1.7
1330-20-7	Xylenes, Total	1.2	U	17	1.2
98-06-6	tert-Butylbenzene	1.2	U	8.3	1.2
106-93-4	1,2-Dibromoethane	1.0	U	8.3	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 Lab Sample ID: 240-96144-4

Matrix: Water Lab File ID: U1264122.D

Analysis Method: 8260C Date Collected: 05/23/2018 11:55

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 16:28

Soil Aliquot Vol: Dilution Factor: 8.333

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		73-120
1868-53-7	Dibromofluoromethane (Surr)	112		69-124
460-00-4	4-Bromofluorobenzene (Surr)	106		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 | Lab Sample ID: 240-96144-4

Matrix: Water | Lab File ID: U1264122.D

Analysis Method: 8260C | Date Collected: 05/23/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:28

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 | Lab Sample ID: 240-96144-4

Matrix: Water | Lab File ID: U1264122.D

Analysis Method: 8260C | Date Collected: 05/23/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:28

Soil Aliquot Vol: | Dilution Factor: 8.333

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		8.3	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264123.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:51

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	140	U	1000	140
71-55-6	1,1,1-Trichloroethane	240	U	1000	240
79-34-5	1,1,2,2-Tetrachloroethane	130	U	1000	130
76-13-1	1,1,2-Trichlorotrifluoroethane	410	U *	1000	410
75-34-3	1,1-Dichloroethane	170	U	1000	170
75-35-4	1,1-Dichloroethene	190	U	1000	190
563-58-6	1,1-Dichloropropene	140	U	1000	140
87-61-6	1,2,3-Trichlorobenzene	540	U	1000	540
96-18-4	1,2,3-Trichloropropane	240	U	1000	240
526-73-8	1,2,3-Trimethylbenzene	140	U	5000	140
120-82-1	1,2,4-Trichlorobenzene	990	J	1000	260
95-63-6	1,2,4-Trimethylbenzene	70	U	1000	70
96-12-8	1,2-Dibromo-3-Chloropropane	910	U	2000	910
95-50-1	1,2-Dichlorobenzene	150	U	1000	150
107-06-2	1,2-Dichloroethane	480	J	1000	210
78-87-5	1,2-Dichloropropane	150	U	1000	150
541-73-1	1,3-Dichlorobenzene	150	U	1000	150
142-28-9	1,3-Dichloropropane	210	U	1000	210
106-46-7	1,4-Dichlorobenzene	210	J	1000	160
594-20-7	2,2-Dichloropropane	310	U	1000	310
78-93-3	2-Butanone (MEK)	1200	U	10000	1200
110-75-8	2-Chloroethyl vinyl ether	260	U	10000	260
95-49-8	2-Chlorotoluene	150	U	1000	150
591-78-6	2-Hexanone	540	U	10000	540
106-43-4	4-Chlorotoluene	90	U	1000	90
99-87-6	4-Isopropyltoluene	130	U	1000	130
108-10-1	4-Methyl-2-pentanone (MIBK)	420	U	10000	420
67-64-1	Acetone	5400	U	10000	5400
71-43-2	Benzene	170	J	1000	130
108-86-1	Bromobenzene	120	U	1000	120
75-25-2	Bromoform	760	U	1000	760
74-83-9	Bromomethane	420	U	1000	420
75-15-0	Carbon disulfide	280	U	1000	280
56-23-5	Carbon tetrachloride	260	U	1000	260
108-90-7	Chlorobenzene	160	J	1000	140
124-48-1	Chlorodibromomethane	390	U	1000	390

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264123.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:51

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	830	U	1000	830
67-66-3	Chloroform	130	U	1000	130
74-87-3	Chloromethane	200	U	1000	200
156-59-2	cis-1,2-Dichloroethene	21000		1000	160
10061-01-5	cis-1,3-Dichloropropene	610	U	1000	610
74-95-3	Dibromomethane	90	U	1000	90
74-97-5	Bromochloromethane	140	U	1000	140
75-71-8	Dichlorodifluoromethane	350	U	1000	350
75-27-4	Bromodichloromethane	170	U	1000	170
75-65-0	tert-Butyl alcohol	1700	U	50000	1700
100-41-4	Ethylbenzene	110	U	1000	110
87-68-3	Hexachlorobutadiene	830	U	1000	830
108-20-3	Diisopropyl ether	170	U	10000	170
98-82-8	Isopropylbenzene	90	U	1000	90
1634-04-4	Methyl tert-butyl ether	70	U	1000	70
75-09-2	Methylene Chloride	2600	U	5000	2600
179601-23-1	m-Xylene & p-Xylene	80	U	2000	80
91-20-3	Naphthalene	320	U	1000	320
104-51-8	n-Butylbenzene	140	U	1000	140
103-65-1	N-Propylbenzene	150	U	1000	150
95-47-6	o-Xylene	90	U	1000	90
135-98-8	sec-Butylbenzene	130	U	1000	130
100-42-5	Styrene	100	U	1000	100
994-05-8	Tert-amyl methyl ether	110	U	5000	110
637-92-3	Ethyl tert-butyl ether	150	U	5000	150
127-18-4	Tetrachloroethene	150	U	1000	150
108-88-3	Toluene	920	J	1000	140
156-60-5	trans-1,2-Dichloroethene	190	U	1000	190
10061-02-6	trans-1,3-Dichloropropene	670	U	1000	670
79-01-6	Trichloroethene	35000		1000	100
75-69-4	Trichlorofluoromethane	450	U	1000	450
108-05-4	Vinyl acetate	190	U	2000	190
1330-20-7	Xylenes, Total	150	U	2000	150
98-06-6	tert-Butylbenzene	140	U	1000	140
106-93-4	1,2-Dibromoethane	120	U	1000	120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 Lab Sample ID: 240-96144-5

Matrix: Water Lab File ID: U1264123.D

Analysis Method: 8260C Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 16:51

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	113		73-120
1868-53-7	Dibromofluoromethane (Surr)	116		69-124
460-00-4	4-Bromofluorobenzene (Surr)	104		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264123.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:51

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264123.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 16:51

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1000	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264148.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 20:21

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	13000		1000	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	112		73-120
1868-53-7	Dibromofluoromethane (Surr)	117		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: U1264148.D

Analysis Method: 8260C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 20:21

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: U1264124.D

Analysis Method: 8260C | Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	1.6		1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.56	J	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.39	J	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	2.1		1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: U1264124.D

Analysis Method: 8260C | Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.22	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.57	J	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.13	J	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.17	J	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.86	J	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.9		1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.27	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.80	J	1.0	0.20
1330-20-7	Xylenes, Total	0.17	J	2.0	0.15
98-06-6	tert-Butylbenzene	0.77	J	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 Lab Sample ID: 240-96144-6

Matrix: Water Lab File ID: U1264124.D

Analysis Method: 8260C Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 17:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	111		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: U1264124.D

Analysis Method: 8260C | Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
107-83-5	Pentane, 2-methyl-	3.05	3.2	T J N	50%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: U1264124.D

Analysis Method: 8260C | Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: U1264125.D

Analysis Method: 8260C | Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:38

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.56	U	4.0	0.56
71-55-6	1,1,1-Trichloroethane	0.96	U	4.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	4.0	0.52
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U *	4.0	1.6
75-34-3	1,1-Dichloroethane	0.68	U	4.0	0.68
75-35-4	1,1-Dichloroethene	2.0	J	4.0	0.76
563-58-6	1,1-Dichloropropene	0.56	U	4.0	0.56
87-61-6	1,2,3-Trichlorobenzene	2.2	U	4.0	2.2
96-18-4	1,2,3-Trichloropropane	0.96	U	4.0	0.96
526-73-8	1,2,3-Trimethylbenzene	0.56	U	20	0.56
120-82-1	1,2,4-Trichlorobenzene	1.0	U	4.0	1.0
95-63-6	1,2,4-Trimethylbenzene	0.28	U	4.0	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	8.0	3.6
95-50-1	1,2-Dichlorobenzene	0.60	U	4.0	0.60
107-06-2	1,2-Dichloroethane	2.9	J	4.0	0.84
78-87-5	1,2-Dichloropropane	0.60	U	4.0	0.60
541-73-1	1,3-Dichlorobenzene	0.60	U	4.0	0.60
142-28-9	1,3-Dichloropropane	0.84	U	4.0	0.84
106-46-7	1,4-Dichlorobenzene	0.64	U	4.0	0.64
594-20-7	2,2-Dichloropropane	1.2	U	4.0	1.2
78-93-3	2-Butanone (MEK)	4.6	U	40	4.6
110-75-8	2-Chloroethyl vinyl ether	1.0	U	40	1.0
95-49-8	2-Chlorotoluene	0.60	U	4.0	0.60
591-78-6	2-Hexanone	2.2	U	40	2.2
106-43-4	4-Chlorotoluene	0.36	U	4.0	0.36
99-87-6	4-Isopropyltoluene	0.52	U	4.0	0.52
108-10-1	4-Methyl-2-pentanone (MIBK)	1.7	U	40	1.7
67-64-1	Acetone	22	U	40	22
71-43-2	Benzene	0.57	J	4.0	0.52
108-86-1	Bromobenzene	0.48	U	4.0	0.48
75-25-2	Bromoform	3.0	U	4.0	3.0
74-83-9	Bromomethane	1.7	U	4.0	1.7
75-15-0	Carbon disulfide	1.1	U	4.0	1.1
56-23-5	Carbon tetrachloride	4.4		4.0	1.0
108-90-7	Chlorobenzene	0.56	U	4.0	0.56
124-48-1	Chlorodibromomethane	1.6	U	4.0	1.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: U1264125.D

Analysis Method: 8260C | Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:38

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	3.3	U	4.0	3.3
67-66-3	Chloroform	3.7	J	4.0	0.52
74-87-3	Chloromethane	0.80	U	4.0	0.80
156-59-2	cis-1,2-Dichloroethene	110		4.0	0.64
10061-01-5	cis-1,3-Dichloropropene	2.4	U	4.0	2.4
74-95-3	Dibromomethane	0.36	U	4.0	0.36
74-97-5	Bromochloromethane	0.56	U	4.0	0.56
75-71-8	Dichlorodifluoromethane	1.4	U	4.0	1.4
75-27-4	Bromodichloromethane	0.68	U	4.0	0.68
75-65-0	tert-Butyl alcohol	6.8	U	200	6.8
100-41-4	Ethylbenzene	0.44	U	4.0	0.44
87-68-3	Hexachlorobutadiene	3.3	U	4.0	3.3
108-20-3	Diisopropyl ether	0.68	U	40	0.68
98-82-8	Isopropylbenzene	0.36	U	4.0	0.36
1634-04-4	Methyl tert-butyl ether	0.28	U	4.0	0.28
75-09-2	Methylene Chloride	10	U	20	10
179601-23-1	m-Xylene & p-Xylene	0.32	U	8.0	0.32
91-20-3	Naphthalene	1.3	U	4.0	1.3
104-51-8	n-Butylbenzene	0.56	U	4.0	0.56
103-65-1	N-Propylbenzene	0.60	U	4.0	0.60
95-47-6	o-Xylene	0.36	U	4.0	0.36
135-98-8	sec-Butylbenzene	0.52	U	4.0	0.52
100-42-5	Styrene	0.40	U	4.0	0.40
994-05-8	Tert-amyl methyl ether	0.44	U	20	0.44
637-92-3	Ethyl tert-butyl ether	0.60	U	20	0.60
127-18-4	Tetrachloroethene	0.60	U	4.0	0.60
108-88-3	Toluene	0.56	U	4.0	0.56
156-60-5	trans-1,2-Dichloroethene	1.1	J	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	2.7	U	4.0	2.7
79-01-6	Trichloroethene	170		4.0	0.40
75-69-4	Trichlorofluoromethane	1.8	U	4.0	1.8
108-05-4	Vinyl acetate	0.76	U	8.0	0.76
1330-20-7	Xylenes, Total	0.60	U	8.0	0.60
98-06-6	tert-Butylbenzene	0.56	U	4.0	0.56
106-93-4	1,2-Dibromoethane	0.48	U	4.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 Lab Sample ID: 240-96144-7

Matrix: Water Lab File ID: U1264125.D

Analysis Method: 8260C Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 17:38

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	108		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: U1264125.D

Analysis Method: 8260C | Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 17:38

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 Lab Sample ID: 240-96144-7

Matrix: Water Lab File ID: U1264125.D

Analysis Method: 8260C Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 17:38

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		4.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: U1264149.D

Analysis Method: 8260C | Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 20:45

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	24		4.0	0.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	117		73-120
1868-53-7	Dibromofluoromethane (Surr)	116		69-124
460-00-4	4-Bromofluorobenzene (Surr)	107		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: U1264149.D

Analysis Method: 8260C | Date Collected: 05/24/2018 10:59

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 20:45

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264126.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.8	U	13	1.8
71-55-6	1,1,1-Trichloroethane	3.0	U	13	3.0
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	13	1.6
76-13-1	1,1,2-Trichlorotrifluoroethane	5.1	U *	13	5.1
75-34-3	1,1-Dichloroethane	2.1	U	13	2.1
75-35-4	1,1-Dichloroethene	3.4	J	13	2.4
563-58-6	1,1-Dichloropropene	1.8	U	13	1.8
87-61-6	1,2,3-Trichlorobenzene	6.8	U	13	6.8
96-18-4	1,2,3-Trichloropropane	3.0	U	13	3.0
526-73-8	1,2,3-Trimethylbenzene	1.8	U	63	1.8
120-82-1	1,2,4-Trichlorobenzene	3.3	U	13	3.3
95-63-6	1,2,4-Trimethylbenzene	0.88	U	13	0.88
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	25	11
95-50-1	1,2-Dichlorobenzene	1.9	U	13	1.9
107-06-2	1,2-Dichloroethane	2.6	U	13	2.6
78-87-5	1,2-Dichloropropane	1.9	U	13	1.9
541-73-1	1,3-Dichlorobenzene	1.9	U	13	1.9
142-28-9	1,3-Dichloropropane	2.6	U	13	2.6
106-46-7	1,4-Dichlorobenzene	2.0	U	13	2.0
594-20-7	2,2-Dichloropropane	3.9	U	13	3.9
78-93-3	2-Butanone (MEK)	15	U	130	15
110-75-8	2-Chloroethyl vinyl ether	3.3	U	130	3.3
95-49-8	2-Chlorotoluene	1.9	U	13	1.9
591-78-6	2-Hexanone	6.8	U	130	6.8
106-43-4	4-Chlorotoluene	1.1	U	13	1.1
99-87-6	4-Isopropyltoluene	1.6	U	13	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	5.3	U	130	5.3
67-64-1	Acetone	68	U	130	68
71-43-2	Benzene	1.6	U	13	1.6
108-86-1	Bromobenzene	1.5	U	13	1.5
75-25-2	Bromoform	9.5	U	13	9.5
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	3.5	U	13	3.5
56-23-5	Carbon tetrachloride	3.3	U	13	3.3
108-90-7	Chlorobenzene	1.8	U	13	1.8
124-48-1	Chlorodibromomethane	4.9	U	13	4.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264126.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	10	U	13	10
67-66-3	Chloroform	1.6	U	13	1.6
74-87-3	Chloromethane	2.5	U	13	2.5
156-59-2	cis-1,2-Dichloroethene	370		13	2.0
10061-01-5	cis-1,3-Dichloropropene	7.6	U	13	7.6
74-95-3	Dibromomethane	1.1	U	13	1.1
74-97-5	Bromochloromethane	1.8	U	13	1.8
75-71-8	Dichlorodifluoromethane	4.4	U	13	4.4
75-27-4	Bromodichloromethane	2.1	U	13	2.1
75-65-0	tert-Butyl alcohol	21	U	630	21
100-41-4	Ethylbenzene	1.4	U	13	1.4
87-68-3	Hexachlorobutadiene	10	U	13	10
108-20-3	Diisopropyl ether	2.1	U	130	2.1
98-82-8	Isopropylbenzene	1.1	U	13	1.1
1634-04-4	Methyl tert-butyl ether	0.88	U	13	0.88
75-09-2	Methylene Chloride	33	U	63	33
179601-23-1	m-Xylene & p-Xylene	1.0	U	25	1.0
91-20-3	Naphthalene	4.0	U	13	4.0
104-51-8	n-Butylbenzene	1.8	U	13	1.8
103-65-1	N-Propylbenzene	1.9	U	13	1.9
95-47-6	o-Xylene	1.1	U	13	1.1
135-98-8	sec-Butylbenzene	1.6	U	13	1.6
100-42-5	Styrene	1.3	U	13	1.3
994-05-8	Tert-amyl methyl ether	1.4	U	63	1.4
637-92-3	Ethyl tert-butyl ether	1.9	U	63	1.9
127-18-4	Tetrachloroethene	1.9	U	13	1.9
108-88-3	Toluene	1.8	U	13	1.8
156-60-5	trans-1,2-Dichloroethene	2.9	J	13	2.4
10061-02-6	trans-1,3-Dichloropropene	8.4	U	13	8.4
79-01-6	Trichloroethene	110		13	1.3
75-69-4	Trichlorofluoromethane	5.6	U	13	5.6
108-05-4	Vinyl acetate	2.4	U	25	2.4
1330-20-7	Xylenes, Total	1.9	U	25	1.9
98-06-6	tert-Butylbenzene	1.8	U	13	1.8
106-93-4	1,2-Dibromoethane	1.5	U	13	1.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 Lab Sample ID: 240-96144-8

Matrix: Water Lab File ID: U1264126.D

Analysis Method: 8260C Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 18:01

Soil Aliquot Vol: Dilution Factor: 12.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		73-120
1868-53-7	Dibromofluoromethane (Surr)	114		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264126.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264126.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:01

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		13	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264150.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 21:08

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	100		13	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	111		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: U1264150.D

Analysis Method: 8260C | Date Collected: 05/24/2018 12:25

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 21:08

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 | Lab Sample ID: 240-96144-9

Matrix: Water | Lab File ID: U1264127.D

Analysis Method: 8260C | Date Collected: 05/24/2018 15:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U *	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 | Lab Sample ID: 240-96144-9

Matrix: Water | Lab File ID: U1264127.D

Analysis Method: 8260C | Date Collected: 05/24/2018 15:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.27	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.51	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 Lab Sample ID: 240-96144-9

Matrix: Water Lab File ID: U1264127.D

Analysis Method: 8260C Date Collected: 05/24/2018 15:01

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 18:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	107		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 | Lab Sample ID: 240-96144-9

Matrix: Water | Lab File ID: U1264127.D

Analysis Method: 8260C | Date Collected: 05/24/2018 15:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 18:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 Lab Sample ID: 240-96144-9

Matrix: Water Lab File ID: U1264127.D

Analysis Method: 8260C Date Collected: 05/24/2018 15:01

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 18:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052518 | Lab Sample ID: 240-96206-1

Matrix: Water | Lab File ID: U1264293.D

Analysis Method: 8260C | Date Collected: 05/25/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	6.1	J	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052518 | Lab Sample ID: 240-96206-1

Matrix: Water | Lab File ID: U1264293.D

Analysis Method: 8260C | Date Collected: 05/25/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	2.5	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052518 Lab Sample ID: 240-96206-1

Matrix: Water Lab File ID: U1264293.D

Analysis Method: 8260C Date Collected: 05/25/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 21:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	91		69-124
460-00-4	4-Bromofluorobenzene (Surr)	86		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052518 Lab Sample ID: 240-96206-1

Matrix: Water Lab File ID: U1264293.D

Analysis Method: 8260C Date Collected: 05/25/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 21:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-052518 | Lab Sample ID: 240-96206-1

Matrix: Water | Lab File ID: U1264293.D

Analysis Method: 8260C | Date Collected: 05/25/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: U1264317.D

Analysis Method: 8260C | Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:17

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.8	U	13	1.8
71-55-6	1,1,1-Trichloroethane	3.0	U	13	3.0
79-34-5	1,1,2,2-Tetrachloroethane	1.6	U	13	1.6
76-13-1	1,1,2-Trichlorotrifluoroethane	5.1	U	13	5.1
75-34-3	1,1-Dichloroethane	2.1	U	13	2.1
75-35-4	1,1-Dichloroethene	4.2	J	13	2.4
563-58-6	1,1-Dichloropropene	1.8	U	13	1.8
87-61-6	1,2,3-Trichlorobenzene	6.8	U	13	6.8
96-18-4	1,2,3-Trichloropropane	3.0	U	13	3.0
526-73-8	1,2,3-Trimethylbenzene	1.8	U	63	1.8
120-82-1	1,2,4-Trichlorobenzene	3.3	U	13	3.3
95-63-6	1,2,4-Trimethylbenzene	0.88	U	13	0.88
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	25	11
95-50-1	1,2-Dichlorobenzene	1.9	U	13	1.9
107-06-2	1,2-Dichloroethane	2.6	U	13	2.6
78-87-5	1,2-Dichloropropane	1.9	U	13	1.9
541-73-1	1,3-Dichlorobenzene	1.9	U	13	1.9
142-28-9	1,3-Dichloropropane	2.6	U	13	2.6
106-46-7	1,4-Dichlorobenzene	2.0	U	13	2.0
594-20-7	2,2-Dichloropropane	3.9	U	13	3.9
78-93-3	2-Butanone (MEK)	15	U	130	15
110-75-8	2-Chloroethyl vinyl ether	3.3	U	130	3.3
95-49-8	2-Chlorotoluene	1.9	U	13	1.9
591-78-6	2-Hexanone	6.8	U	130	6.8
106-43-4	4-Chlorotoluene	1.1	U	13	1.1
99-87-6	4-Isopropyltoluene	1.6	U	13	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	5.3	U	130	5.3
67-64-1	Acetone	68	U	130	68
71-43-2	Benzene	7.2	J	13	1.6
108-86-1	Bromobenzene	1.5	U	13	1.5
75-25-2	Bromoform	9.5	U	13	9.5
74-83-9	Bromomethane	5.3	U	13	5.3
75-15-0	Carbon disulfide	3.5	U	13	3.5
56-23-5	Carbon tetrachloride	3.3	U	13	3.3
108-90-7	Chlorobenzene	1.8	U	13	1.8
124-48-1	Chlorodibromomethane	4.9	U	13	4.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: U1264317.D

Analysis Method: 8260C | Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:17

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	10	U	13	10
67-66-3	Chloroform	1.6	U	13	1.6
74-87-3	Chloromethane	2.5	U	13	2.5
156-59-2	cis-1,2-Dichloroethene	360		13	2.0
10061-01-5	cis-1,3-Dichloropropene	7.6	U	13	7.6
74-95-3	Dibromomethane	1.1	U	13	1.1
74-97-5	Bromochloromethane	1.8	U	13	1.8
75-71-8	Dichlorodifluoromethane	4.4	U	13	4.4
75-27-4	Bromodichloromethane	2.1	U	13	2.1
75-65-0	tert-Butyl alcohol	21	U	630	21
100-41-4	Ethylbenzene	1.4	U	13	1.4
87-68-3	Hexachlorobutadiene	10	U	13	10
108-20-3	Diisopropyl ether	2.1	U	130	2.1
98-82-8	Isopropylbenzene	1.1	U	13	1.1
1634-04-4	Methyl tert-butyl ether	0.88	U	13	0.88
75-09-2	Methylene Chloride	33	U	63	33
179601-23-1	m-Xylene & p-Xylene	1.0	U	25	1.0
91-20-3	Naphthalene	4.0	U	13	4.0
104-51-8	n-Butylbenzene	1.8	U	13	1.8
103-65-1	N-Propylbenzene	1.9	U	13	1.9
95-47-6	o-Xylene	1.1	U	13	1.1
135-98-8	sec-Butylbenzene	1.6	U	13	1.6
100-42-5	Styrene	1.3	U	13	1.3
994-05-8	Tert-amyl methyl ether	1.4	U	63	1.4
637-92-3	Ethyl tert-butyl ether	1.9	U	63	1.9
127-18-4	Tetrachloroethene	1.9	U	13	1.9
108-88-3	Toluene	1.8	U	13	1.8
156-60-5	trans-1,2-Dichloroethene	3.7	J	13	2.4
10061-02-6	trans-1,3-Dichloropropene	8.4	U	13	8.4
79-01-6	Trichloroethene	380		13	1.3
75-69-4	Trichlorofluoromethane	5.6	U	13	5.6
108-05-4	Vinyl acetate	2.4	U	25	2.4
75-01-4	Vinyl chloride	64		13	2.5
1330-20-7	Xylenes, Total	1.9	U	25	1.9
98-06-6	tert-Butylbenzene	1.8	U	13	1.8
106-93-4	1,2-Dibromoethane	1.5	U	13	1.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 Lab Sample ID: 240-96206-2

Matrix: Water Lab File ID: U1264317.D

Analysis Method: 8260C Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 19:17

Soil Aliquot Vol: Dilution Factor: 12.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: U1264317.D

Analysis Method: 8260C | Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:17

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: U1264317.D

Analysis Method: 8260C | Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:17

Soil Aliquot Vol: | Dilution Factor: 12.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		13	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 | Lab Sample ID: 240-96206-3

Matrix: Water | Lab File ID: U1264295.D

Analysis Method: 8260C | Date Collected: 05/25/2018 09:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 | Lab Sample ID: 240-96206-3

Matrix: Water | Lab File ID: U1264295.D

Analysis Method: 8260C | Date Collected: 05/25/2018 09:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.19	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 Lab Sample ID: 240-96206-3

Matrix: Water Lab File ID: U1264295.D

Analysis Method: 8260C Date Collected: 05/25/2018 09:51

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 21:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 | Lab Sample ID: 240-96206-3

Matrix: Water | Lab File ID: U1264295.D

Analysis Method: 8260C | Date Collected: 05/25/2018 09:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 | Lab Sample ID: 240-96206-3

Matrix: Water | Lab File ID: U1264295.D

Analysis Method: 8260C | Date Collected: 05/25/2018 09:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 21:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: U1264296.D

Analysis Method: 8260C | Date Collected: 05/25/2018 11:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: U1264296.D

Analysis Method: 8260C | Date Collected: 05/25/2018 11:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.26	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.60	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: U1264296.D

Analysis Method: 8260C | Date Collected: 05/25/2018 11:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: U1264296.D

Analysis Method: 8260C | Date Collected: 05/25/2018 11:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: U1264296.D

Analysis Method: 8260C | Date Collected: 05/25/2018 11:58

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: U1264297a.D

Analysis Method: 8260C | Date Collected: 05/25/2018 13:36

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: U1264297a.D

Analysis Method: 8260C | Date Collected: 05/25/2018 13:36

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 Lab Sample ID: 240-96206-5

Matrix: Water Lab File ID: U1264297a.D

Analysis Method: 8260C Date Collected: 05/25/2018 13:36

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 22:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	117		73-120
1868-53-7	Dibromofluoromethane (Surr)	109		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: U1264297a.D

Analysis Method: 8260C | Date Collected: 05/25/2018 13:36

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: U1264297a.D

Analysis Method: 8260C | Date Collected: 05/25/2018 13:36

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 22:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: U1264298.D

Analysis Method: 8260C | Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: U1264298.D

Analysis Method: 8260C | Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.3		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.15	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.27	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 Lab Sample ID: 240-96257-2

Matrix: Water Lab File ID: U1264298.D

Analysis Method: 8260C Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 23:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: U1264298.D

Analysis Method: 8260C | Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: U1264298.D

Analysis Method: 8260C | Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: U1264299a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:30

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	140	U	1000	140
71-55-6	1,1,1-Trichloroethane	240	U	1000	240
79-34-5	1,1,2,2-Tetrachloroethane	130	U	1000	130
76-13-1	1,1,2-Trichlorotrifluoroethane	410	U	1000	410
75-34-3	1,1-Dichloroethane	170	U	1000	170
75-35-4	1,1-Dichloroethene	190	U	1000	190
563-58-6	1,1-Dichloropropene	140	U	1000	140
87-61-6	1,2,3-Trichlorobenzene	540	U	1000	540
96-18-4	1,2,3-Trichloropropane	240	U	1000	240
526-73-8	1,2,3-Trimethylbenzene	140	U	5000	140
120-82-1	1,2,4-Trichlorobenzene	260	U	1000	260
95-63-6	1,2,4-Trimethylbenzene	70	U	1000	70
96-12-8	1,2-Dibromo-3-Chloropropane	910	U	2000	910
95-50-1	1,2-Dichlorobenzene	150	U	1000	150
107-06-2	1,2-Dichloroethane	210	U	1000	210
78-87-5	1,2-Dichloropropane	150	U	1000	150
541-73-1	1,3-Dichlorobenzene	150	U	1000	150
142-28-9	1,3-Dichloropropane	210	U	1000	210
106-46-7	1,4-Dichlorobenzene	160	U	1000	160
594-20-7	2,2-Dichloropropane	310	U	1000	310
78-93-3	2-Butanone (MEK)	1200	U	10000	1200
110-75-8	2-Chloroethyl vinyl ether	260	U	10000	260
95-49-8	2-Chlorotoluene	150	U	1000	150
591-78-6	2-Hexanone	540	U	10000	540
106-43-4	4-Chlorotoluene	90	U	1000	90
99-87-6	4-Isopropyltoluene	130	U	1000	130
108-10-1	4-Methyl-2-pentanone (MIBK)	420	U	10000	420
67-64-1	Acetone	5400	U	10000	5400
71-43-2	Benzene	130	U	1000	130
108-86-1	Bromobenzene	120	U	1000	120
75-25-2	Bromoform	760	U	1000	760
74-83-9	Bromomethane	420	U	1000	420
75-15-0	Carbon disulfide	280	U	1000	280
56-23-5	Carbon tetrachloride	5500		1000	260
108-90-7	Chlorobenzene	140	U	1000	140
124-48-1	Chlorodibromomethane	390	U	1000	390

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: U1264299a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:30

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	830	U	1000	830
67-66-3	Chloroform	1800		1000	130
74-87-3	Chloromethane	200	U	1000	200
156-59-2	cis-1,2-Dichloroethene	4000		1000	160
10061-01-5	cis-1,3-Dichloropropene	610	U	1000	610
74-95-3	Dibromomethane	90	U	1000	90
74-97-5	Bromochloromethane	140	U	1000	140
75-71-8	Dichlorodifluoromethane	350	U	1000	350
75-27-4	Bromodichloromethane	170	U	1000	170
75-65-0	tert-Butyl alcohol	1700	U	50000	1700
100-41-4	Ethylbenzene	110	U	1000	110
87-68-3	Hexachlorobutadiene	830	U	1000	830
108-20-3	Diisopropyl ether	170	U	10000	170
98-82-8	Isopropylbenzene	90	U	1000	90
1634-04-4	Methyl tert-butyl ether	70	U	1000	70
75-09-2	Methylene Chloride	2600	U	5000	2600
179601-23-1	m-Xylene & p-Xylene	80	U	2000	80
91-20-3	Naphthalene	320	U	1000	320
104-51-8	n-Butylbenzene	140	U	1000	140
103-65-1	N-Propylbenzene	150	U	1000	150
95-47-6	o-Xylene	90	U	1000	90
135-98-8	sec-Butylbenzene	130	U	1000	130
100-42-5	Styrene	100	U	1000	100
994-05-8	Tert-amyl methyl ether	110	U	5000	110
637-92-3	Ethyl tert-butyl ether	150	U	5000	150
127-18-4	Tetrachloroethene	150	U	1000	150
108-88-3	Toluene	1700		1000	140
156-60-5	trans-1,2-Dichloroethene	190	U	1000	190
10061-02-6	trans-1,3-Dichloropropene	670	U	1000	670
79-01-6	Trichloroethene	18000		1000	100
75-69-4	Trichlorofluoromethane	450	U	1000	450
108-05-4	Vinyl acetate	190	U	2000	190
75-01-4	Vinyl chloride	240	J	1000	200
1330-20-7	Xylenes, Total	150	U	2000	150
98-06-6	tert-Butylbenzene	140	U	1000	140
106-93-4	1,2-Dibromoethane	120	U	1000	120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 Lab Sample ID: 240-96257-3

Matrix: Water Lab File ID: U1264299a.D

Analysis Method: 8260C Date Collected: 05/29/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 23:30

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: U1264299a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:30

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: U1264299a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:30

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1000	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: U1264300a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:53

Soil Aliquot Vol: | Dilution Factor: 1250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	180	U	1300	180
71-55-6	1,1,1-Trichloroethane	300	U	1300	300
79-34-5	1,1,2,2-Tetrachloroethane	160	U	1300	160
76-13-1	1,1,2-Trichlorotrifluoroethane	510	U	1300	510
75-34-3	1,1-Dichloroethane	210	U	1300	210
75-35-4	1,1-Dichloroethene	240	U	1300	240
563-58-6	1,1-Dichloropropene	180	U	1300	180
87-61-6	1,2,3-Trichlorobenzene	680	U	1300	680
96-18-4	1,2,3-Trichloropropane	300	U	1300	300
526-73-8	1,2,3-Trimethylbenzene	180	U	6300	180
120-82-1	1,2,4-Trichlorobenzene	330	U	1300	330
95-63-6	1,2,4-Trimethylbenzene	88	U	1300	88
96-12-8	1,2-Dibromo-3-Chloropropane	1100	U	2500	1100
95-50-1	1,2-Dichlorobenzene	190	U	1300	190
107-06-2	1,2-Dichloroethane	260	U	1300	260
78-87-5	1,2-Dichloropropane	190	U	1300	190
541-73-1	1,3-Dichlorobenzene	190	U	1300	190
142-28-9	1,3-Dichloropropane	260	U	1300	260
106-46-7	1,4-Dichlorobenzene	200	U	1300	200
594-20-7	2,2-Dichloropropane	390	U	1300	390
78-93-3	2-Butanone (MEK)	1500	U	13000	1500
110-75-8	2-Chloroethyl vinyl ether	330	U	13000	330
95-49-8	2-Chlorotoluene	190	U	1300	190
591-78-6	2-Hexanone	680	U	13000	680
106-43-4	4-Chlorotoluene	110	U	1300	110
99-87-6	4-Isopropyltoluene	160	U	1300	160
108-10-1	4-Methyl-2-pentanone (MIBK)	530	U	13000	530
67-64-1	Acetone	6800	U	13000	6800
71-43-2	Benzene	160	U	1300	160
108-86-1	Bromobenzene	150	U	1300	150
75-25-2	Bromoform	950	U	1300	950
74-83-9	Bromomethane	530	U	1300	530
75-15-0	Carbon disulfide	350	U	1300	350
56-23-5	Carbon tetrachloride	4300		1300	330
108-90-7	Chlorobenzene	180	U	1300	180
124-48-1	Chlorodibromomethane	490	U	1300	490

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: U1264300a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:53

Soil Aliquot Vol: | Dilution Factor: 1250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1000	U	1300	1000
67-66-3	Chloroform	3200		1300	160
74-87-3	Chloromethane	250	U	1300	250
156-59-2	cis-1,2-Dichloroethene	27000		1300	200
10061-01-5	cis-1,3-Dichloropropene	760	U	1300	760
74-95-3	Dibromomethane	110	U	1300	110
74-97-5	Bromochloromethane	180	U	1300	180
75-71-8	Dichlorodifluoromethane	440	U	1300	440
75-27-4	Bromodichloromethane	210	U	1300	210
75-65-0	tert-Butyl alcohol	2100	U	63000	2100
100-41-4	Ethylbenzene	140	U	1300	140
87-68-3	Hexachlorobutadiene	1000	U	1300	1000
108-20-3	Diisopropyl ether	210	U	13000	210
98-82-8	Isopropylbenzene	110	U	1300	110
1634-04-4	Methyl tert-butyl ether	88	U	1300	88
75-09-2	Methylene Chloride	3300	U	6300	3300
179601-23-1	m-Xylene & p-Xylene	170	J	2500	100
91-20-3	Naphthalene	400	U	1300	400
104-51-8	n-Butylbenzene	180	U	1300	180
103-65-1	N-Propylbenzene	190	U	1300	190
95-47-6	o-Xylene	110	U	1300	110
135-98-8	sec-Butylbenzene	160	U	1300	160
100-42-5	Styrene	130	U	1300	130
994-05-8	Tert-amyl methyl ether	140	U	6300	140
637-92-3	Ethyl tert-butyl ether	190	U	6300	190
127-18-4	Tetrachloroethene	190	U	1300	190
108-88-3	Toluene	18000		1300	180
156-60-5	trans-1,2-Dichloroethene	240	U	1300	240
10061-02-6	trans-1,3-Dichloropropene	840	U	1300	840
79-01-6	Trichloroethene	37000		1300	130
75-69-4	Trichlorofluoromethane	560	U	1300	560
108-05-4	Vinyl acetate	240	U	2500	240
75-01-4	Vinyl chloride	2200		1300	250
1330-20-7	Xylenes, Total	190	U	2500	190
98-06-6	tert-Butylbenzene	180	U	1300	180
106-93-4	1,2-Dibromoethane	150	U	1300	150

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 Lab Sample ID: 240-96257-4

Matrix: Water Lab File ID: U1264300a.D

Analysis Method: 8260C Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 23:53

Soil Aliquot Vol: Dilution Factor: 1250

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: U1264300a.D

Analysis Method: 8260C | Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 23:53

Soil Aliquot Vol: | Dilution Factor: 1250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 Lab Sample ID: 240-96257-4

Matrix: Water Lab File ID: U1264300a.D

Analysis Method: 8260C Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 23:53

Soil Aliquot Vol: Dilution Factor: 1250

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1300	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-053018 | Lab Sample ID: 240-96362-1

Matrix: Water | Lab File ID: U1264318.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-053018 | Lab Sample ID: 240-96362-1

Matrix: Water | Lab File ID: U1264318.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.18	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	3.7	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.16	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-053018 Lab Sample ID: 240-96362-1

Matrix: Water Lab File ID: U1264318.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 19:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-053018 | Lab Sample ID: 240-96362-1

Matrix: Water | Lab File ID: U1264318.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: TB-053018 | Lab Sample ID: 240-96362-1

Matrix: Water | Lab File ID: U1264318.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: U1264319.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.68	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: U1264319.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.5		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.12	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.71	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 Lab Sample ID: 240-96362-2

Matrix: Water Lab File ID: U1264319.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	117		73-120
1868-53-7	Dibromofluoromethane (Surr)	106		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 Lab Sample ID: 240-96362-2

Matrix: Water Lab File ID: U1264319.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: U1264319.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 | Lab Sample ID: 240-96362-3

Matrix: Water | Lab File ID: U1264320.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:27

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	14	U	100	14
71-55-6	1,1,1-Trichloroethane	24	U	100	24
79-34-5	1,1,2,2-Tetrachloroethane	13	U	100	13
76-13-1	1,1,2-Trichlorotrifluoroethane	41	U	100	41
75-34-3	1,1-Dichloroethane	17	U	100	17
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	14	U	100	14
87-61-6	1,2,3-Trichlorobenzene	54	U	100	54
96-18-4	1,2,3-Trichloropropane	24	U	100	24
526-73-8	1,2,3-Trimethylbenzene	14	U	500	14
120-82-1	1,2,4-Trichlorobenzene	26	U	100	26
95-63-6	1,2,4-Trimethylbenzene	7.0	U	100	7.0
96-12-8	1,2-Dibromo-3-Chloropropane	91	U	200	91
95-50-1	1,2-Dichlorobenzene	15	U	100	15
107-06-2	1,2-Dichloroethane	22	J	100	21
78-87-5	1,2-Dichloropropane	15	U	100	15
541-73-1	1,3-Dichlorobenzene	15	U	100	15
142-28-9	1,3-Dichloropropane	21	U	100	21
106-46-7	1,4-Dichlorobenzene	16	U	100	16
594-20-7	2,2-Dichloropropane	31	U	100	31
78-93-3	2-Butanone (MEK)	120	U	1000	120
110-75-8	2-Chloroethyl vinyl ether	26	U	1000	26
95-49-8	2-Chlorotoluene	15	U	100	15
591-78-6	2-Hexanone	54	U	1000	54
106-43-4	4-Chlorotoluene	9.0	U	100	9.0
99-87-6	4-Isopropyltoluene	13	U	100	13
108-10-1	4-Methyl-2-pentanone (MIBK)	42	U	1000	42
67-64-1	Acetone	540	U	1000	540
71-43-2	Benzene	15	J	100	13
108-86-1	Bromobenzene	12	U	100	12
75-25-2	Bromoform	76	U	100	76
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	28	U	100	28
56-23-5	Carbon tetrachloride	26	U	100	26
108-90-7	Chlorobenzene	14	U	100	14
124-48-1	Chlorodibromomethane	39	U	100	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 | Lab Sample ID: 240-96362-3

Matrix: Water | Lab File ID: U1264320.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:27

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	83	U	100	83
67-66-3	Chloroform	13	U	100	13
74-87-3	Chloromethane	20	U	100	20
156-59-2	cis-1,2-Dichloroethene	2600		100	16
10061-01-5	cis-1,3-Dichloropropene	61	U	100	61
74-95-3	Dibromomethane	9.0	U	100	9.0
74-97-5	Bromochloromethane	14	U	100	14
75-71-8	Dichlorodifluoromethane	35	U	100	35
75-27-4	Bromodichloromethane	17	U	100	17
75-65-0	tert-Butyl alcohol	170	U	5000	170
100-41-4	Ethylbenzene	11	U	100	11
87-68-3	Hexachlorobutadiene	83	U	100	83
108-20-3	Diisopropyl ether	17	U	1000	17
98-82-8	Isopropylbenzene	9.0	U	100	9.0
1634-04-4	Methyl tert-butyl ether	7.0	U	100	7.0
75-09-2	Methylene Chloride	260	U	500	260
179601-23-1	m-Xylene & p-Xylene	8.0	U	200	8.0
91-20-3	Naphthalene	32	U	100	32
104-51-8	n-Butylbenzene	14	U	100	14
103-65-1	N-Propylbenzene	15	U	100	15
95-47-6	o-Xylene	9.0	U	100	9.0
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	10	U	100	10
994-05-8	Tert-amyl methyl ether	11	U	500	11
637-92-3	Ethyl tert-butyl ether	15	U	500	15
127-18-4	Tetrachloroethene	15	U	100	15
108-88-3	Toluene	18	J	100	14
156-60-5	trans-1,2-Dichloroethene	25	J	100	19
10061-02-6	trans-1,3-Dichloropropene	67	U	100	67
79-01-6	Trichloroethene	2200		100	10
75-69-4	Trichlorofluoromethane	45	U	100	45
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	1300		100	20
1330-20-7	Xylenes, Total	15	U	200	15
98-06-6	tert-Butylbenzene	14	U	100	14
106-93-4	1,2-Dibromoethane	12	U	100	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 Lab Sample ID: 240-96362-3

Matrix: Water Lab File ID: U1264320.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 20:27

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	114		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	106		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 | Lab Sample ID: 240-96362-3

Matrix: Water | Lab File ID: U1264320.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:27

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 | Lab Sample ID: 240-96362-3

Matrix: Water | Lab File ID: U1264320.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:27

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		100	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 | Lab Sample ID: 240-96362-4

Matrix: Water | Lab File ID: U1264321.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:50

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	40	5.6
71-55-6	1,1,1-Trichloroethane	9.6	U	40	9.6
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	40	5.2
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U	40	16
75-34-3	1,1-Dichloroethane	6.8	U	40	6.8
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.6	U	40	5.6
87-61-6	1,2,3-Trichlorobenzene	22	U	40	22
96-18-4	1,2,3-Trichloropropane	9.6	U	40	9.6
526-73-8	1,2,3-Trimethylbenzene	5.6	U	200	5.6
120-82-1	1,2,4-Trichlorobenzene	10	U	40	10
95-63-6	1,2,4-Trimethylbenzene	2.8	U	40	2.8
96-12-8	1,2-Dibromo-3-Chloropropane	36	U	80	36
95-50-1	1,2-Dichlorobenzene	6.0	U	40	6.0
107-06-2	1,2-Dichloroethane	8.4	U	40	8.4
78-87-5	1,2-Dichloropropane	6.0	U	40	6.0
541-73-1	1,3-Dichlorobenzene	6.0	U	40	6.0
142-28-9	1,3-Dichloropropane	8.4	U	40	8.4
106-46-7	1,4-Dichlorobenzene	6.4	U	40	6.4
594-20-7	2,2-Dichloropropane	12	U	40	12
78-93-3	2-Butanone (MEK)	46	U	400	46
110-75-8	2-Chloroethyl vinyl ether	10	U	400	10
95-49-8	2-Chlorotoluene	6.0	U	40	6.0
591-78-6	2-Hexanone	22	U	400	22
106-43-4	4-Chlorotoluene	3.6	U	40	3.6
99-87-6	4-Isopropyltoluene	5.2	U	40	5.2
108-10-1	4-Methyl-2-pentanone (MIBK)	17	U	400	17
67-64-1	Acetone	220	U	400	220
71-43-2	Benzene	12	J	40	5.2
108-86-1	Bromobenzene	4.8	U	40	4.8
75-25-2	Bromoform	30	U	40	30
74-83-9	Bromomethane	17	U	40	17
75-15-0	Carbon disulfide	11	U	40	11
56-23-5	Carbon tetrachloride	10	U	40	10
108-90-7	Chlorobenzene	5.6	U	40	5.6
124-48-1	Chlorodibromomethane	16	U	40	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 | Lab Sample ID: 240-96362-4

Matrix: Water | Lab File ID: U1264321.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:50

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	33	U	40	33
67-66-3	Chloroform	5.2	U	40	5.2
74-87-3	Chloromethane	8.0	U	40	8.0
156-59-2	cis-1,2-Dichloroethene	330		40	6.4
10061-01-5	cis-1,3-Dichloropropene	24	U	40	24
74-95-3	Dibromomethane	3.6	U	40	3.6
74-97-5	Bromochloromethane	5.6	U	40	5.6
75-71-8	Dichlorodifluoromethane	14	U	40	14
75-27-4	Bromodichloromethane	6.8	U	40	6.8
75-65-0	tert-Butyl alcohol	68	U	2000	68
100-41-4	Ethylbenzene	4.4	U	40	4.4
87-68-3	Hexachlorobutadiene	33	U	40	33
108-20-3	Diisopropyl ether	6.8	U	400	6.8
98-82-8	Isopropylbenzene	3.6	U	40	3.6
1634-04-4	Methyl tert-butyl ether	2.8	U	40	2.8
75-09-2	Methylene Chloride	100	U	200	100
179601-23-1	m-Xylene & p-Xylene	3.2	U	80	3.2
91-20-3	Naphthalene	13	U	40	13
104-51-8	n-Butylbenzene	5.6	U	40	5.6
103-65-1	N-Propylbenzene	6.0	U	40	6.0
95-47-6	o-Xylene	3.6	U	40	3.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.0	U	40	4.0
994-05-8	Tert-amyl methyl ether	4.4	U	200	4.4
637-92-3	Ethyl tert-butyl ether	6.0	U	200	6.0
127-18-4	Tetrachloroethene	6.0	U	40	6.0
108-88-3	Toluene	5.6	U	40	5.6
156-60-5	trans-1,2-Dichloroethene	7.6	U	40	7.6
10061-02-6	trans-1,3-Dichloropropene	27	U	40	27
79-01-6	Trichloroethene	180		40	4.0
75-69-4	Trichlorofluoromethane	18	U	40	18
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	1000		40	8.0
1330-20-7	Xylenes, Total	6.0	U	80	6.0
98-06-6	tert-Butylbenzene	5.6	U	40	5.6
106-93-4	1,2-Dibromoethane	4.8	U	40	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 Lab Sample ID: 240-96362-4

Matrix: Water Lab File ID: U1264321.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 20:50

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	117		73-120
1868-53-7	Dibromofluoromethane (Surr)	110		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	126		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 | Lab Sample ID: 240-96362-4

Matrix: Water | Lab File ID: U1264321.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:50

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 | Lab Sample ID: 240-96362-4

Matrix: Water | Lab File ID: U1264321.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 20:50

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		40	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 | Lab Sample ID: 240-96362-5

Matrix: Water | Lab File ID: U1264322.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 21:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U F1	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.59	J	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 | Lab Sample ID: 240-96362-5

Matrix: Water | Lab File ID: U1264322.D

Analysis Method: 8260C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 21:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.32	J	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.6		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	16		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.30	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Matrix: Water Lab File ID: U1264322.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 21:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	114		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	101		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Matrix: Water Lab File ID: U1264322.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 21:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Matrix: Water Lab File ID: U1264322.D

Analysis Method: 8260C Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 21:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 | Lab Sample ID: 240-96144-2

Matrix: Water | Lab File ID: 80530011.D

Analysis Method: 8270D | Date Collected: 05/23/2018 08:22

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 260(mL) | Date Analyzed: 05/30/2018 10:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.4		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	57		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: 80530012.D

Analysis Method: 8270D | Date Collected: 05/23/2018 10:06

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 11:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	60		17-120
321-60-8	2-Fluorobiphenyl (Surr)	59		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-30I-052318 | Lab Sample ID: 240-96144-4

Matrix: Water | Lab File ID: 80530013.D

Analysis Method: 8270D | Date Collected: 05/23/2018 11:55

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 280(mL) | Date Analyzed: 05/30/2018 11:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		28-128
4165-62-2	Phenol-d5 (Surr)	37		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	55		35-120
367-12-4	2-Fluorophenol (Surr)	46		17-120
321-60-8	2-Fluorobiphenyl (Surr)	51		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	64		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: 80531010.D

Analysis Method: 8270D | Date Collected: 05/23/2018 14:50

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 09:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 50

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	650		46	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	37		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	50		17-120
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	62		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: 80531009.D

Analysis Method: 8270D | Date Collected: 05/24/2018 09:14

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 09:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	7.4		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	35		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		35-120
367-12-4	2-Fluorophenol (Surr)	54		17-120
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	96		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10I-052418 | Lab Sample ID: 240-96144-7

Matrix: Water | Lab File ID: 80530016.D

Analysis Method: 8270D | Date Collected: 05/24/2018 10:59

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 13:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	13		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	73		35-120
367-12-4	2-Fluorophenol (Surr)	61		17-120
321-60-8	2-Fluorobiphenyl (Surr)	69		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	89		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: 80530017.D

Analysis Method: 8270D | Date Collected: 05/24/2018 12:25

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 280(mL) | Date Analyzed: 05/30/2018 13:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.2		0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	48		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	66		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	58		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	77		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21D-052418 | Lab Sample ID: 240-96144-9

Matrix: Water | Lab File ID: 80530018.D

Analysis Method: 8270D | Date Collected: 05/24/2018 15:01

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 260(mL) | Date Analyzed: 05/30/2018 14:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		28-128
4165-62-2	Phenol-d5 (Surr)	33		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
367-12-4	2-Fluorophenol (Surr)	49		17-120
321-60-8	2-Fluorobiphenyl (Surr)	53		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	66		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: 80531016.D

Analysis Method: 8270D | Date Collected: 05/25/2018 08:23

Extract. Method: 3510C | Date Extracted: 05/30/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 12:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	43		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		35-120
367-12-4	2-Fluorophenol (Surr)	63		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	94		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33I-052518 | Lab Sample ID: 240-96206-3

Matrix: Water | Lab File ID: 80531017.D

Analysis Method: 8270D | Date Collected: 05/25/2018 09:51

Extract. Method: 3510C | Date Extracted: 05/30/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 12:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	63		17-120
321-60-8	2-Fluorobiphenyl (Surr)	68		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	93		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 | Lab Sample ID: 240-96206-4

Matrix: Water | Lab File ID: 80531018.D

Analysis Method: 8270D | Date Collected: 05/25/2018 11:58

Extract. Method: 3510C | Date Extracted: 05/30/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 13:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		28-128
4165-62-2	Phenol-d5 (Surr)	57		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	80		35-120
367-12-4	2-Fluorophenol (Surr)	70		17-120
321-60-8	2-Fluorobiphenyl (Surr)	77		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	102		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: 80531019.D

Analysis Method: 8270D | Date Collected: 05/25/2018 13:36

Extract. Method: 3510C | Date Extracted: 05/30/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 05/31/2018 13:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	98		28-128
4165-62-2	Phenol-d5 (Surr)	60		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	80		35-120
367-12-4	2-Fluorophenol (Surr)	71		17-120
321-60-8	2-Fluorobiphenyl (Surr)	78		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	104		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: 80601025.D

Analysis Method: 8270D | Date Collected: 05/29/2018 09:09

Extract. Method: 3510C | Date Extracted: 05/31/2018 07:51

Sample wt/vol: 260(mL) | Date Analyzed: 06/01/2018 15:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329484 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		35-120
367-12-4	2-Fluorophenol (Surr)	62		17-120
321-60-8	2-Fluorobiphenyl (Surr)	74		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	82		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: 80604004.D

Analysis Method: 8270D | Date Collected: 05/29/2018 10:35

Extract. Method: 3510C | Date Extracted: 05/31/2018 07:51

Sample wt/vol: 270(mL) | Date Analyzed: 06/04/2018 07:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 4

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329813 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	82		3.7	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	31		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	51		35-120
367-12-4	2-Fluorophenol (Surr)	40		17-120
321-60-8	2-Fluorobiphenyl (Surr)	50		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	71		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: 80604005.D

Analysis Method: 8270D | Date Collected: 05/29/2018 11:46

Extract. Method: 3510C | Date Extracted: 05/31/2018 07:51

Sample wt/vol: 260(mL) | Date Analyzed: 06/04/2018 07:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 25

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329813 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	510		24	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	98		28-128
4165-62-2	Phenol-d5 (Surr)	40		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	57		35-120
367-12-4	2-Fluorophenol (Surr)	45		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	89		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: 80605026.D

Analysis Method: 8270D | Date Collected: 05/30/2018 00:00

Extract. Method: 3510C | Date Extracted: 06/01/2018 06:35

Sample wt/vol: 270(mL) | Date Analyzed: 06/05/2018 17:03

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	8.4		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		28-128
4165-62-2	Phenol-d5 (Surr)	40		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	55		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	70		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1A-053018 | Lab Sample ID: 240-96362-3

Matrix: Water | Lab File ID: 80607014.D

Analysis Method: 8270D | Date Collected: 05/30/2018 00:00

Extract. Method: 3510C | Date Extracted: 06/06/2018 08:25

Sample wt/vol: 270(mL) | Date Analyzed: 06/07/2018 13:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 2.5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	71		2.3	0.89

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		28-128
4165-62-2	Phenol-d5 (Surr)	45		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-120
367-12-4	2-Fluorophenol (Surr)	68		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1B-053018 | Lab Sample ID: 240-96362-4

Matrix: Water | Lab File ID: 80605028.D

Analysis Method: 8270D | Date Collected: 05/30/2018 00:00

Extract. Method: 3510C | Date Extracted: 06/01/2018 06:35

Sample wt/vol: 260(mL) | Date Analyzed: 06/05/2018 17:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	31		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	61		17-120
321-60-8	2-Fluorobiphenyl (Surr)	60		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	77		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-19D-053018 | Lab Sample ID: 240-96362-5

Matrix: Water | Lab File ID: 80605029.D

Analysis Method: 8270D | Date Collected: 05/30/2018 00:00

Extract. Method: 3510C | Date Extracted: 06/01/2018 06:35

Sample wt/vol: 260(mL) | Date Analyzed: 06/05/2018 18:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.37	U	0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	94		28-128
4165-62-2	Phenol-d5 (Surr)	56		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-120
367-12-4	2-Fluorophenol (Surr)	69		17-120
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 | Lab Sample ID: 240-96144-2

Matrix: Water | Lab File ID: A0053029.D

Analysis Method: 8015C | Date Collected: 05/23/2018 08:22

Sample wt/vol: 5(mL) | Date Analyzed: 05/30/2018 00:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329068 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	74		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: A0060122.D

Analysis Method: 8015C | Date Collected: 05/23/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 21:50

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329505 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	25000		2000	980

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	88		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: A0060123.D

Analysis Method: 8015C | Date Collected: 05/24/2018 09:14

Sample wt/vol: 5(mL) | Date Analyzed: 06/01/2018 22:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329505 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	90	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	91		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: A0053033.D

Analysis Method: 8015C | Date Collected: 05/25/2018 08:23

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329068 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	460		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	72		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: A0060428.D

Analysis Method: 8015C | Date Collected: 05/29/2018 09:09

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 22:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	87		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: A0060429.D

Analysis Method: 8015C | Date Collected: 05/29/2018 11:46

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 23:12

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	94000		5000	2500

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	87		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: A0060430.D

Analysis Method: 8015C | Date Collected: 05/30/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 23:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	90		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24S-052318 | Lab Sample ID: 240-96144-2

Matrix: Water | Lab File ID: R053012.D

Analysis Method: 8015C | Date Collected: 05/23/2018 08:22

Extraction Method: 3520C | Date Extracted: 05/29/2018 10:42

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 21:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329220 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	380	J	460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-45S-052318 | Lab Sample ID: 240-96144-5

Matrix: Water | Lab File ID: R053013.D

Analysis Method: 8015C | Date Collected: 05/23/2018 14:50

Extraction Method: 3520C | Date Extracted: 05/29/2018 10:42

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 21:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329220 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	3200		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-10S-052418 | Lab Sample ID: 240-96144-6

Matrix: Water | Lab File ID: R053014.D

Analysis Method: 8015C | Date Collected: 05/24/2018 09:14

Extraction Method: 3520C | Date Extracted: 05/29/2018 10:42

Sample wt/vol: 270(mL) | Date Analyzed: 05/30/2018 22:03

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329220 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1600		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	88		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-33S-052518 | Lab Sample ID: 240-96206-2

Matrix: Water | Lab File ID: R053017.D

Analysis Method: 8015C | Date Collected: 05/25/2018 08:23

Extraction Method: 3520C | Date Extracted: 05/29/2018 10:42

Sample wt/vol: 250(mL) | Date Analyzed: 05/30/2018 23:25

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329220 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	77		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-3-052918 | Lab Sample ID: 240-96257-2

Matrix: Water | Lab File ID: R060111.D

Analysis Method: 8015C | Date Collected: 05/29/2018 09:09

Extraction Method: 3520C | Date Extracted: 05/31/2018 07:27

Sample wt/vol: 280(mL) | Date Analyzed: 06/01/2018 19:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329629 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	200	U	450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: R060112.D

Analysis Method: 8015C | Date Collected: 05/29/2018 11:46

Extraction Method: 3520C | Date Extracted: 05/31/2018 07:27

Sample wt/vol: 270(mL) | Date Analyzed: 06/01/2018 19:32

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329629 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	3200		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: DMW-1S-053018 | Lab Sample ID: 240-96362-2

Matrix: Water | Lab File ID: R060514.D

Analysis Method: 8015C | Date Collected: 05/30/2018 00:00

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 270(mL) | Date Analyzed: 06/05/2018 20:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	210	U	460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	70		37-130

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-24I-052318 | Lab Sample ID: 240-96144-3

Matrix: Water | Lab File ID: Perc_06082018A_021.d

Analysis Method: 6850 | Date Collected: 05/23/2018 10:06

Extraction Method: Filtration | Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) | Date Analyzed: 06/08/2018 19:12

Con. Extract Vol.: 4.0(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-21I-052418 | Lab Sample ID: 240-96144-8

Matrix: Water | Lab File ID: Perc_06082018A_022.d

Analysis Method: 6850 | Date Collected: 05/24/2018 12:25

Extraction Method: Filtration | Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) | Date Analyzed: 06/08/2018 19:26

Con. Extract Vol.: 4.0(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15I-052518 Lab Sample ID: 240-96206-4

Matrix: Water Lab File ID: Perc_06082018A_032.d

Analysis Method: 6850 Date Collected: 05/25/2018 11:58

Extraction Method: Filtration Date Extracted: 05/31/2018 12:03

Sample wt/vol: 4.00(mL) Date Analyzed: 06/08/2018 21:39

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-15D-052518 | Lab Sample ID: 240-96206-5

Matrix: Water | Lab File ID: Perc_06082018A_035.d

Analysis Method: 6850 | Date Collected: 05/25/2018 13:36

Extraction Method: Filtration | Date Extracted: 05/31/2018 12:03

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/08/2018 22:19

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.83		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54I-052918 | Lab Sample ID: 240-96257-3

Matrix: Water | Lab File ID: Perc_06142018A_011.d

Analysis Method: 6850 | Date Collected: 05/29/2018 10:35

Extraction Method: Filtration | Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/14/2018 13:59

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.12	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: MSA-MW-54S-052918 | Lab Sample ID: 240-96257-4

Matrix: Water | Lab File ID: Perc_06142018A_012.d

Analysis Method: 6850 | Date Collected: 05/29/2018 11:46

Extraction Method: Filtration | Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/14/2018 14:12

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-30I-052318 Lab Sample ID: 240-96144-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 11:55

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-30I-052318 Lab Sample ID: 240-96144-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 11:55

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.96	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.23	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.5	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	8.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	1000	100	47	ug/L			1	6020A
7439-96-5	Manganese	81	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.74	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	3.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.071	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-30I-052318 Lab Sample ID: 240-96144-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 11:55

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.22	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	7.8	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	410	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	80	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	13	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-45S-052318 Lab Sample ID: 240-96144-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 14:50

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-45S-052318 Lab Sample ID: 240-96144-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 14:50

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.94	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.40	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	2600	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	23	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	4000	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	9.4	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	170	100	47	ug/L			1	6020A
7439-96-5	Manganese	2600	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	130	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	4.6	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	67	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-45S-052318 Lab Sample ID: 240-96144-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/23/2018 14:50

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.45	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	2900	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	25	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4800	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	10	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	2700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	150	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	5.0	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	100	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-10S-052418 Lab Sample ID: 240-96144-6

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 09:14

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-10S-052418 Lab Sample ID: 240-96144-6

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 09:14

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	15	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.42	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	3.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.5	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	57000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.3	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-10S-052418 Lab Sample ID: 240-96144-6

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 09:14

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	15	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	3.2	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	55000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1300	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.4	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-10I-052418 Lab Sample ID: 240-96144-7

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 10:59

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-10I-052418 Lab Sample ID: 240-96144-7

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 10:59

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	14	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	50	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.32	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	11	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	4.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	10000	100	47	ug/L			1	6020A
7439-96-5	Manganese	260	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	7.7	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.4	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	6.0	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-10I-052418 Lab Sample ID: 240-96144-7

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 10:59

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	15	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	50	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	11	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.4	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	11000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	280	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	7.6	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	3.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-21I-052418 Lab Sample ID: 240-96144-8

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 12:25

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-21I-052418 Lab Sample ID: 240-96144-8

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 12:25

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	13	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	29	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	5.1	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.9	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	18000	100	47	ug/L			1	6020A
7439-96-5	Manganese	400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.5	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	2.6	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.9	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.98	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.91	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-21I-052418 Lab Sample ID: 240-96144-8

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 12:25

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	13	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	4.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	18000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	410	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.5	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	2.4	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.57	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	1.2	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-21D-052418 Lab Sample ID: 240-96144-9

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 15:01

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.32	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-21D-052418 Lab Sample ID: 240-96144-9

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 15:01

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.0	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	49	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	2.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	7.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	690	100	47	ug/L			1	6020A
7439-96-5	Manganese	19	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	5.2	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.4	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	5.4	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.062	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-21D-052418 Lab Sample ID: 240-96144-9

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/24/2018 15:01

Reporting Basis: WET Date Received: 05/25/2018 10:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	2.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	40	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	4.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	300	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	16	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	3.3	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	3.1	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-33S-052518 Lab Sample ID: 240-96206-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 08:23

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-33S-052518 Lab Sample ID: 240-96206-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 08:23

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	16	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.51	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	31	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.9	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	11000	100	47	ug/L			1	6020A
7439-96-5	Manganese	55	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	25	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.094	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-33S-052518 Lab Sample ID: 240-96206-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 08:23

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	15	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	24	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	28	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.3	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	10000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	50	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	24	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.7	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U	F1	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-33I-052518 Lab Sample ID: 240-96206-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 09:51

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-33I-052518 Lab Sample ID: 240-96206-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 09:51

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	42	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	3.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.0	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	9.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	820	100	47	ug/L			1	6020A
7439-96-5	Manganese	53	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	6.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.52	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.99	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.14	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-33I-052518 Lab Sample ID: 240-96206-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 09:51

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	38	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	2.2	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	7.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	180	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	37	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	5.0	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.086	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-15I-052518 Lab Sample ID: 240-96206-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 11:58

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-15I-052518 Lab Sample ID: 240-96206-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 11:58

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	2.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	4.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	1000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	3.4	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	4.0	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-15I-052518 Lab Sample ID: 240-96206-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 11:58

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	2.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	2.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	1000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	3.4	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	4.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-15D-052518 Lab Sample ID: 240-96206-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 13:36

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-15D-052518 Lab Sample ID: 240-96206-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 13:36

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	4.1	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.2	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	5.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	390	100	47	ug/L			1	6020A
7439-96-5	Manganese	30	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	17	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-15D-052518 Lab Sample ID: 240-96206-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/25/2018 13:36

Reporting Basis: WET Date Received: 05/26/2018 10:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	4.0	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	5.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	95	100	47	ug/L	J		1	6020A
7439-96-5	Dissolved Manganese	27	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	16	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-3-052918 Lab Sample ID: 240-96257-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 09:09

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-3-052918 Lab Sample ID: 240-96257-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 09:09

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.40	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.80	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	1.4	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	14	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Iron	2400	100	47	ug/L		B	1	6020A
7439-96-5	Manganese	62	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	1.4	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	3.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-3-052918 Lab Sample ID: 240-96257-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 09:09

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.32	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.85	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	1.4	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	2.6	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Dissolved Iron	2300	100	47	ug/L		B	1	6020A
7439-96-5	Dissolved Manganese	62	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.6	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	3.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-54I-052918 Lab Sample ID: 240-96257-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 10:35

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-54I-052918 Lab Sample ID: 240-96257-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 10:35

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	24	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.88	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	41	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	5000	100	47	ug/L		B	1	6020A
7439-96-5	Manganese	3100	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	150	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	5.1	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-54I-052918 Lab Sample ID: 240-96257-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 10:35

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	4.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	25	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	40	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.2	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	5000	100	47	ug/L		B	1	6020A
7439-96-5	Dissolved Manganese	3000	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	140	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	6.0	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.27	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-54S-052918 Lab Sample ID: 240-96257-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 11:46

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-54S-052918 Lab Sample ID: 240-96257-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 11:46

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.9	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	25	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	250	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	88	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	6.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	14000	100	47	ug/L		B	1	6020A
7439-96-5	Manganese	1800	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	84	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	5.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.31	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	1.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-54S-052918 Lab Sample ID: 240-96257-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/29/2018 11:46

Reporting Basis: WET Date Received: 05/30/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	3.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	25	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	250	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	88	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	6.4	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Dissolved Iron	15000	100	47	ug/L		B	1	6020A
7439-96-5	Dissolved Manganese	1900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	84	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	5.4	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.29	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-1S-053018 Lab Sample ID: 240-96362-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-1S-053018 Lab Sample ID: 240-96362-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	3.1	2.0	0.57	ug/L			1	6020A
7440-38-2	Arsenic	1.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	1.4	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	0.41	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	12	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	600	100	47	ug/L			1	6020A
7439-96-5	Manganese	22	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.8	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Lead	11	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.6	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-1S-053018 Lab Sample ID: 240-96362-2

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	2.8	2.0	0.57	ug/L			1	6020A
7440-38-2	Dissolved Arsenic	2.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	49	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	1.2	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	0.59	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	6.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	910	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	30	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	2.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	6.8	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	1.6	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-1A-053018 Lab Sample ID: 240-96362-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.18	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-1A-053018 Lab Sample ID: 240-96362-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	10	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	260	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	27	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	11	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	7.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	31000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	52	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	3.0	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-1A-053018 Lab Sample ID: 240-96362-3

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	10	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	260	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	26	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	10	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	6.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3200	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	53	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	3.5	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-1B-053018 Lab Sample ID: 240-96362-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-1B-053018 Lab Sample ID: 240-96362-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	86	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	25	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.3	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	15	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	20000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	20	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.57	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	2.8	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-1B-053018 Lab Sample ID: 240-96362-4

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	89	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	25	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.4	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	16	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	19000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3200	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	21	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.55	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	2.8	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	51	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.4	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	2.0	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	220	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	4.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	23	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	530	100	47	ug/L			1	6020A
7439-96-5	Manganese	2500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.57	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	3.3	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Thallium	0.34	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	1.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-19D-053018 Lab Sample ID: 240-96362-5

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG ID.:

Matrix: Water Date Sampled: 05/30/2018 00:00

Reporting Basis: WET Date Received: 05/31/2018 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	57	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.5	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	2.1	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	240	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	3.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	21	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	540	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2800	5.0	2.1	ug/L		F1	1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	120	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	3.9	5.0	0.89	ug/L	J	B ^	1	6020A
7440-28-0	Dissolved Thallium	0.37	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	1.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1,4/C1.5 0.6/C0.7

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011801~~ 112IC08424			
Site: Dump Rd.	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	G20 (8015C)	D20 (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Number of containers
			Preservation Code:				A							
TB-052318	5/23/18	—	G	Water			2	-	-	-	-	-	-	
MSA-MW-24S-052318		0822					3	2	2	2	1	1	-	
MSA-MW-24I-052318		1006					3	-	-	2	1	1	1	
MSA-MW-30I-052318		1155					3	-	-	2	1	1	-	
MSA-MW-45S-052318		1450					3	2	2	2	1	1	-	
DMW-10S-052418	5/24/18	0914					3	2	2	2	1	1	-	
DMW-10I-052418		1054					3	-	-	2	1	1	-	
MSA-MW-21I-052418		1225					3	-	-	2	1	1	1	
MSA-MW-21D-052418		1501					3	-	-	2	1	1	-	

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pryor	5/24/18 1540	T&E		5/24/18 15:40	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/24/18		TOP	5-25-18 1015	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

BALTIMORE 180325



TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 96194
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	1.4	1.5	Ice
		0.6	0.7	

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 96144**
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 5-25-16 Opened on 5-25-16

Cooler unpacked by: POP

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ~~See~~ See Multiple Cooler Form
   IR GUN# IR-8 (CF **+0.1** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF **-1.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	(Yes)	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # COVERED	(Yes)	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: POP.

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-24S-052318	240-96144-J-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-24S-052318	240-96144-K-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-24I-052318	240-96144-G-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-24I-052318	240-96144-H-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-30I-052318	240-96144-F-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-30I-052318	240-96144-G-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-45S-052318	240-96144-J-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-45S-052318	240-96144-K-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-10S-052418	240-96144-J-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-10S-052418	240-96144-K-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-10I-052418	240-96144-F-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-10I-052418	240-96144-G-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-21I-052418	240-96144-G-8	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-21I-052418	240-96144-H-8	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-21D-052418	240-96144-F-9	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-21D-052418	240-96144-G-9	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.2|C23

Chain of Custody Record

TestAmerica

180325 BALTIMORE

Client Information	Sampler: Walt Patton	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-84181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011881~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas (8015C)	Gas (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-052518	5/25/18	—	G	Water			2	-	-	-	-	-	-		
MSA-MW-33S-052518		0823					3	2	2	2	1	1	-		
MSA-MW-33I-052518		0951					3	-	-	2	1	1	-		
MSA-MW-15I-052518		1158					3	-	-	2	1	1	1		
MSA-MW-15D-052518		1336					3	-	-	2	1	1	1		

240-96206 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pat	5/25/18	TT INC		5/25/18	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/25/18		Jennifer Miller	5-26-18 10:45am	TA Canton
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 08/31/2017

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 96206
Canton Facility

Client Tetra Tech Site Name MSA GW 2018 Cooler unpacked by: [signature]
Cooler Received on 5-26-18 Opened on 5-26-18
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # Foam Box Client Cooler Box Other
Packing material used: Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 2.2 °C Corrected Cooler Temp. 2.3 °C
   IR GUN #36 (CF +0.3°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C~~
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 011281C Yes No
16. Was a LL Hg or Me Hg trip blank present? ____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JR

18. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) MW-33I total metals were further preserved in the laboratory.
Time preserved: 11:50 Preservative(s) added/Lot number(s): 0000187387/nitric acid.

WI-NC-099

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-33S-052518	240-96206-J-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-33S-052518	240-96206-K-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-33I-052518	240-96206-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-33I-052518	240-96206-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-15I-052518	240-96206-G-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-15I-052518	240-96206-H-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-15D-052518	240-96206-G-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-15D-052518	240-96206-H-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.0/2.1

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested
City: Germantown	TAT Requested (days): Standard	
State, Zip: MD, 20874		
Phone: 301 528-3021	PO #: 1137278	
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118	
Project Name: MSA GW 2018	Project #: ~~24011801~~ 112IC08424	
Site: Dump Rd.	SSOW#:	

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

BALTIMORE 180325

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas (9015C)	Gas (9015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-052918	5/29/18	—	G	Water			2	-	-	-	-	-	-		
MSA-MW-3-052918		0909					3	2	2	2	1	1	-		
MSA-MW-54I-052918		1035					3	-	-	2	1	1	1		
MSA-MW-54S-052918		1146					3	2	2	2	1	1	1		

240-96257 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payne	5/29/18	TT INC		5/29/18 14:50	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	5/29/18		TOP	5-30-18 9:30	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 96257**
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 5-30-18 Opened on 5-30-18

Cooler unpacked by: POP

FedEx: 1st Grd ~~Exp~~ UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-8 (CF **+0.1** °C) Observed Cooler Temp. 2.0 °C Corrected Cooler Temp. 2.1 °C
   IR GUN #36 (CF **+0.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C
   ~~IR GUN # 627 (CF **-1.3**°C) Observed Cooler Temp. ____ °C Corrected Cooler Temp. ____ °C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels be reconciled with the COC?	Yes	No
9. Were correct bottle(s) used for the test(s) indicated?	Yes	No
10. Sufficient quantity received to perform indicated analyses?	Yes	No
11. Are these work share samples?	Yes	No
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
16. Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: POP

DID NOT RECEIVE TRIP BLANKS AS PER COC

18. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory.
Time preserved: ____ Preservative(s) added/Lot number(s): ____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-3-052918	240-96257-J-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-3-052918	240-96257-K-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-54I-052918	240-96257-G-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-54I-052918	240-96257-H-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-54S-052918	240-96257-K-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-54S-052918	240-96257-L-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.6/C1.7
2.6/C2.7

Chain of Custody Record

TestAmerica

BALTIMORE 180325

Client Information	Sampler: Walt Patton	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-22047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 991-3914	PO #: 1137278		
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118		
Project Name: MSA GW 2018	Project #: ~~24011891~~ 112IC08424		Other:
Site: Dump Rd	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gas (8015C)	Das (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A							
TB-053018	5/30/18	—	G	Water			2	—	—	—	—	—		
Dmw-1s-053018							3	2	2	2	1	1		
Dmw-1A-053018							3	—	—	2	1	1		
Dmw-1B-053018							3	—	—	2	1	1		
MSA-MW-19D-053018							9	—	—	6	3	3		* MS/MSD

240-96362 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Walt Patton	Date/Time: 5/30/18 1510	Company: TT EMI	Received by:	Date/Time: 5/30/18 15:10	Company
Relinquished by:	Date/Time: 5/30/18 1615	Company	Received by:	Date/Time: 5-31-18 1030	Company: TAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 96362
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 5-31-18 Opened on 5-31-18

Cooler unpacked by: BOP

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ~~(See Multiple Cooler Form~~
   IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF +0.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	(Yes)	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # COOLER	(Yes)	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: POP

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 46362
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	1.6	1.4	ICE
		2.6	2.7	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
DMW-1S-053018	240-96362-J-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-1S-053018	240-96362-K-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-1A-053018	240-96362-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-1A-053018	240-96362-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-1B-053018	240-96362-F-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-1B-053018	240-96362-G-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-19D-053018	240-96362-P-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-19D-053018	240-96362-Q-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-19D-053018	240-96362-R-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-19D-053018	240-96362-S-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-19D-053018	240-96362-T-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-19D-053018	240-96362-U-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-96144-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 5/25/2018 10:15 AM, 5/26/2018 10:45 AM, 5/30/2018 9:30 AM and 5/31/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.7º C, 1.5º C, 1.7º C, 2.1º C, 2.3º C and 2.7º C.

The following sample was listed on the Chain of Custody (COC); however, no sample volume was received: TB-052918.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-052318 (240-96144-1), TB-052518 (240-96206-1), TB-053018 (240-96362-1), MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/03/2018, 06/04/2018, 06/07/2018 and 06/08/2018.

1,1,2-Trichlorotrifluoroethane failed the recovery criteria high for LCS 240-329778/4. 1,1,2-Trichlorotrifluoroethane failed the recovery criteria high for LCS 240-329972/5.

Samples MSA-MW-33S-052518 (240-96257-2)[12.5X], DMW-1A-053018 (240-96257-3)[100X], MSA-MW-54I-052918 (240-96257-3) [1000X], MSA-MW-24I-052318 (240-96257-3)[8.33X], MSA-MW-54S-052918 (240-96257-4)[1250X], DMW-1B-053018 (240-96257-4) [40X], MSA-MW-30I-052318 (240-96257-4)[8.33X], MSA-MW-45S-052318 (240-96257-5)[1000X], DMW-10I-052418 (240-96257-7)[4X] and MSA-MW-21I-052418 (240-96257-8)[12.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) associated with batch 240-329778 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TB-052318 (240-96144-1), MSA-MW-24S-052318 (240-96144-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-45S-052318 (240-96144-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8), MSA-MW-21D-052418 (240-96144-9) and (CCVIS 240-329778/5).

The continuing calibration verification (CCV) analyzed in batch 240-330756 was outside the method criteria for the following analytes: hexachlorobutadiene, and 1,2,3-trichlorobenzene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected

samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for analytical batch 240-329778 recovered outside control limits for 1,1,2-trichloro-1,2,2-trifluoroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The following samples were received preserved with hydrochloric acid: TB-052318 (240-96144-1), TB-052518 (240-96206-1), TB-053018 (240-96362-1), MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9. The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/26/2018, 05/30/2018, 05/31/2018, 06/01/2018 and 06/06/2018 and analyzed on 05/30/2018, 05/31/2018, 06/01/2018, 06/04/2018, 06/05/2018 and 06/07/2018.

Samples DMW-1A-053018 (240-96144-3)[2.5X], MSA-MW-54I-052918 (240-96144-3)[4X], MSA-MW-54S-052918 (240-96144-4)[25X] and MSA-MW-45S-052318 (240-96144-5)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-328700, 240-329092, 240-329317 and 240-330216.

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

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-54S-052918 (240-96257-4), MSA-MW-45S-052318 (240-96144-5) and DMW-10S-052418 (240-96144-6) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 05/30/2018, 05/31/2018, 06/01/2018 and 06/04/2018.

Samples MSA-MW-54S-052918 (240-96257-4)[50X] and MSA-MW-45S-052318 (240-96257-5)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-54S-052918 (240-96257-4), MSA-MW-45S-052318 (240-96144-5) and DMW-10S-052418 (240-96144-6) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 05/29/2018, 05/31/2018 and 06/04/2018 and analyzed on 05/30/2018, 06/01/2018 and 06/05/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-328956, 240-329310 and 240-329956.

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

PERCHLORATE

Samples MSA-MW-24I-052318 (240-96144-3), MSA-MW-54I-052918 (240-96257-3), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), MSA-MW-15D-052518 (240-96206-5) and MSA-MW-21I-052418 (240-96144-8) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 05/30/2018, 05/31/2018 and 06/12/2018 and analyzed on 06/08/2018 and 06/14/2018.

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

DISSOLVED METALS (ICPMS)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918

(240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 05/29/2018, 05/30/2018, 05/31/2018, 06/01/2018 and 06/07/2018 and analyzed on 06/01/2018, 06/04/2018, 06/05/2018, 06/08/2018, 06/09/2018 and 06/11/2018.

Dissolved Copper was detected in method blank MB 240-329145/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Dissolved Zinc was detected in method blank MB 240-329350/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Dissolved Copper and Dissolved Iron were detected in method blank MB 240-329350/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Dissolved Selenium was detected in method blank MB 240-329558/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 05/29/2018, 05/30/2018, 05/31/2018, 06/01/2018 and 06/07/2018 and analyzed on 06/01/2018, 06/05/2018, 06/08/2018, 06/09/2018, 06/11/2018 and 06/12/2018.

Copper was detected in method blank MB 240-329145/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Zinc was detected in method blank MB 240-329350/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Copper and Iron were detected in method blank MB 240-329350/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Selenium was detected in method blank MB 240-329558/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Sample MSA-MW-24S-052318 (240-96144-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification low level standard (CCVL) associated with batch 240-331171 recovered above the upper control limit for selenium. The samples associated with this CCV were less than the reporting limit for the affected analyte; therefore, the data have been reported. The following samples are impacted: DMW-1S-053018 (240-96362-2), DMW-1A-053018 (240-96362-3), DMW-1B-053018 (240-96362-4) and MSA-MW-19D-053018 (240-96362-5).

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

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/29/2018, 05/30/2018, 05/31/2018 and 06/01/2018 and analyzed on 05/30/2018, 05/31/2018, 06/01/2018 and 06/04/2018.

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

TOTAL MERCURY

Samples MSA-MW-24S-052318 (240-96144-2), MSA-MW-33S-052518 (240-96206-2), MSA-MW-3-052918 (240-96257-2), DMW-1S-053018 (240-96362-2), MSA-MW-24I-052318 (240-96144-3), MSA-MW-33I-052518 (240-96206-3), MSA-MW-54I-052918 (240-96257-3), DMW-1A-053018 (240-96362-3), MSA-MW-30I-052318 (240-96144-4), MSA-MW-15I-052518 (240-96206-4), MSA-MW-54S-052918 (240-96257-4), DMW-1B-053018 (240-96362-4), MSA-MW-45S-052318 (240-96144-5), MSA-MW-15D-052518 (240-96206-5), MSA-MW-19D-053018 (240-96362-5), DMW-10S-052418 (240-96144-6), DMW-10I-052418 (240-96144-7), MSA-MW-21I-052418 (240-96144-8) and MSA-MW-21D-052418 (240-96144-9) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 05/29/2018, 05/30/2018, 05/31/2018 and 06/01/2018 and analyzed on 05/30/2018, 05/31/2018, 06/01/2018 and 06/04/2018.

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
L	A negative instrument reading had an absolute value greater than the reporting limit
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
W	PS: Post-digestion spike was outside control limits
V	Serial Dilution exceeds the control limits
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-96144-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-96144-1	TB-052318	Water	05/23/18 00:00	05/25/18 10:15
240-96144-2	MSA-MW-24S-052318	Water	05/23/18 08:22	05/25/18 10:15
240-96144-3	MSA-MW-24I-052318	Water	05/23/18 10:06	05/25/18 10:15
240-96144-4	MSA-MW-30I-052318	Water	05/23/18 11:55	05/25/18 10:15
240-96144-5	MSA-MW-45S-052318	Water	05/23/18 14:50	05/25/18 10:15
240-96144-6	DMW-10S-052418	Water	05/24/18 09:14	05/25/18 10:15
240-96144-7	DMW-10I-052418	Water	05/24/18 10:59	05/25/18 10:15
240-96144-8	MSA-MW-21I-052418	Water	05/24/18 12:25	05/25/18 10:15
240-96144-9	MSA-MW-21D-052418	Water	05/24/18 15:01	05/25/18 10:15
240-96206-1	TB-052518	Water	05/25/18 00:00	05/26/18 10:45
240-96206-2	MSA-MW-33S-052518	Water	05/25/18 08:23	05/26/18 10:45
240-96206-3	MSA-MW-33I-052518	Water	05/25/18 09:51	05/26/18 10:45
240-96206-4	MSA-MW-15I-052518	Water	05/25/18 11:58	05/26/18 10:45
240-96206-5	MSA-MW-15D-052518	Water	05/25/18 13:36	05/26/18 10:45
240-96257-2	MSA-MW-3-052918	Water	05/29/18 09:09	05/30/18 09:30
240-96257-3	MSA-MW-54I-052918	Water	05/29/18 10:35	05/30/18 09:30
240-96257-4	MSA-MW-54S-052918	Water	05/29/18 11:46	05/30/18 09:30
240-96362-1	TB-053018	Water	05/30/18 00:00	05/31/18 10:30
240-96362-2	DMW-1S-053018	Water	05/30/18 00:00	05/31/18 10:30
240-96362-3	DMW-1A-053018	Water	05/30/18 00:00	05/31/18 10:30
240-96362-4	DMW-1B-053018	Water	05/30/18 00:00	05/31/18 10:30
240-96362-5	MSA-MW-19D-053018	Water	05/30/18 00:00	05/31/18 10:30

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-96144-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
Filtration	Sample Filtration	None	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-052318	240-96144-1	107	98	106	90
MSA-MW-24S-052318	240-96144-2	116	106	115	104
MSA-MW-24I-052318	240-96144-3	124	111	117	107
MSA-MW-30I-052318	240-96144-4	112	101	115	106
MSA-MW-45S-052318	240-96144-5	116	105	113	104
MSA-MW-45S-052318	240-96144-5	117	105	112	103
DMW-10S-052418	240-96144-6	111	102	109	102
DMW-10I-052418	240-96144-7	108	100	110	95
DMW-10I-052418	240-96144-7	116	107	117	107
MSA-MW-21I-052418	240-96144-8	114	104	108	99
MSA-MW-21I-052418	240-96144-8	111	103	109	97
MSA-MW-21D-052418	240-96144-9	107	99	103	91
TB-052518	240-96206-1	91	102	99	86
MSA-MW-33S-052518	240-96206-2	96	104	104	91
MSA-MW-33I-052518	240-96206-3	102	114	110	101
MSA-MW-15I-052518	240-96206-4	96	106	106	95
MSA-MW-15D-052518	240-96206-5	109	114	117	103
MSA-MW-3-052918	240-96257-2	94	103	102	89
MSA-MW-54I-052918	240-96257-3	98	107	105	99
MSA-MW-54S-052918	240-96257-4	102	112	111	98
TB-053018	240-96362-1	102	114	111	96
DMW-1S-053018	240-96362-2	106	118	117	101
DMW-1A-053018	240-96362-3	105	118	114	106
DMW-1B-053018	240-96362-4	110	126	117	103
MSA-MW-19D-053018	240-96362-5	101	113	114	101
	MB 240-329778/9	115	106	110	96
	MB 240-329972/8	110	101	107	96
	MB 240-330580/8	101	110	103	93
	MB 240-330756/8	103	115	112	103
	LCS 240-329778/4	101	92	101	95
	LCS 240-329972/5	101	87	95	93
	LCS 240-330580/5	102	108	107	101
	LCS 240-330756/5	102	107	109	103
MSA-MW-45S-052318 MS	240-96144-5 MS	111	98	110	109

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MSA-MW-19D-053018 MS	240-96362-5 MS	103	111	113	105
MSA-MW-45S-052318 MSD	240-96144-5 MSD	97	86	96	90
MSA-MW-19D-053018 MSD	240-96362-5 MSD	95	100	104	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: ICIS 240-328331/13 Date Analyzed: 05/24/2018 13:14

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263876a.D Heated Purge: (Y/N) N

Calibration ID: 45345

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1466112	5.10	1184093	7.76	666320	9.97
UPPER LIMIT		2932224	5.60	2368186	8.26	1332640	10.47
LOWER LIMIT		733056	4.60	592047	7.26	333160	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-328331/17		1644962	5.10	1326619	7.76	746221	9.97
ICV 240-328331/26		1501263	5.10	1169376	7.76	574191	9.97
CCVIS 240-329778/5		1648851	5.10	1292363	7.76	713095	9.97
CCVIS 240-329972/4		1606504	5.10	1307084	7.76	725540	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVIS 240-329778/5 Date Analyzed: 06/03/2018 11:27

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264109.D Heated Purge: (Y/N) N

Calibration ID: 45349

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1648851	5.10	1292363	7.76	713095	9.97
UPPER LIMIT		3297702	5.60	2584726	8.26	1426190	10.47
LOWER LIMIT		824426	4.60	646182	7.26	356548	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-329778/6		1625158	5.10	1279105	7.76	621887	9.97
MB 240-329778/9		1400836	5.10	1135949	7.76	581977	9.97
240-96144-1	TB-052318	1457798	5.10	1163718	7.76	584709	9.97
240-96144-2	MSA-MW-24S-052318	1348993	5.10	1059285	7.76	526758	9.97
240-96144-3	MSA-MW-24I-052318	1257362	5.10	1046376	7.76	520707	9.97
240-96144-4	MSA-MW-30I-052318	1410431	5.10	1083856	7.76	536878	9.97
240-96144-5	MSA-MW-45S-052318	1335111	5.10	1059365	7.76	533306	9.97
240-96144-6	DMW-10S-052418	1459421	5.10	1162470	7.76	583285	9.97
240-96144-7	DMW-10I-052418	1444915	5.10	1132829	7.76	578546	9.97
240-96144-8	MSA-MW-21I-052418	1377933	5.10	1123460	7.76	588593	9.97
240-96144-9	MSA-MW-21D-052418	1435027	5.10	1144825	7.76	585790	9.97
240-96144-5 MS	MSA-MW-45S-052318 MS	1525845	5.10	1222261	7.76	689895	9.97
240-96144-5 MSD	MSA-MW-45S-052318 MSD	1581546	5.10	1259663	7.76	683540	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVIS 240-329972/4 Date Analyzed: 06/04/2018 17:14

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264140.D Heated Purge: (Y/N) N

Calibration ID: 45349

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1606504	5.10	1307084	7.76	725540	9.97
UPPER LIMIT		3213008	5.60	2614168	8.26	1451080	10.47
LOWER LIMIT		803252	4.60	653542	7.26	362770	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-329972/5		1589930	5.10	1277438	7.76	695577	9.97
MB 240-329972/8		1467263	5.10	1166000	7.76	595795	9.97
240-96144-5	MSA-MW-45S-052318	1323859	5.10	1070536	7.76	547038	9.97
240-96144-7	DMW-10I-052418	1395458	5.10	1088276	7.76	565877	9.97
240-96144-8	MSA-MW-21I-052418	1472537	5.10	1177877	7.76	598691	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: ICIS 240-330161/4 Date Analyzed: 06/05/2018 17:54

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264191.D Heated Purge: (Y/N) N

Calibration ID: 45476

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1426703	5.10	1170169	7.76	641653	9.97
UPPER LIMIT		2853406	5.60	2340338	8.26	1283306	10.47
LOWER LIMIT		713352	4.60	585085	7.26	320827	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330161/5		1478009	5.10	1193794	7.76	657647	9.97
CCVIS 240-330580/4		1238608	5.10	990694	7.76	534727	9.97
CCVIS 240-330756/4		1294797	5.10	1003506	7.76	537136	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVIS 240-330580/4 Date Analyzed: 06/07/2018 17:40

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264284.D Heated Purge: (Y/N) N

Calibration ID: 45476

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1238608	5.10	990694	7.76	534727	9.97
UPPER LIMIT		2477216	5.60	1981388	8.26	1069454	10.47
LOWER LIMIT		619304	4.60	495347	7.26	267364	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-330580/3		1321453	5.10	997379	7.76	466967	9.97
LCS 240-330580/5		1365025	5.10	1071293	7.76	582801	9.97
MB 240-330580/8		1222491	5.10	996942	7.76	483668	9.97
240-96206-1	TB-052518	1260615	5.10	978497	7.76	459263	9.97
240-96206-3	MSA-MW-33I-052518	1224855	5.10	960292	7.76	475614	9.97
240-96206-4	MSA-MW-15I-052518	1209134	5.10	929396	7.76	446199	9.97
240-96206-5	MSA-MW-15D-052518	1133657	5.10	852490	7.76	407135	9.97
240-96257-2	MSA-MW-3-052918	1223728	5.10	969247	7.76	469057	9.97
240-96257-3	MSA-MW-54I-052918	1191681	5.10	940471	7.76	439103	9.97
240-96257-4	MSA-MW-54S-052918	1165539	5.10	893250	7.76	422614	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVIS 240-330756/4 Date Analyzed: 06/08/2018 17:20

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264312.D Heated Purge: (Y/N) N

Calibration ID: 45476

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1294797	5.10	1003506	7.76	537136	9.97
UPPER LIMIT		2589594	5.60	2007012	8.26	1074272	10.47
LOWER LIMIT		647399	4.60	501753	7.26	268568	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-330756/3		1259748	5.10	982200	7.76	475738	9.97
LCS 240-330756/5		1351444	5.10	1056685	7.76	548907	9.97
MB 240-330756/8		1190293	5.10	915839	7.76	429302	9.97
240-96206-2	MSA-MW-33S-052518	1204626	5.10	929242	7.76	433036	9.97
240-96362-1	TB-053018	1207245	5.10	945544	7.76	458500	9.97
240-96362-2	DMW-1S-053018	1104894	5.10	849369	7.76	426449	9.97
240-96362-3	DMW-1A-053018	1143999	5.10	880982	7.76	420243	9.97
240-96362-4	DMW-1B-053018	1064527	5.10	840279	7.76	402219	9.97
240-96362-5	MSA-MW-19D-053018	1166049	5.10	887625	7.76	413601	9.97
240-96362-5 MS	MSA-MW-19D-053018 MS	1158934	5.10	888182	7.76	492137	9.97
240-96362-5 MSD	MSA-MW-19D-053018 MSD	1159448	5.10	907013	7.76	471975	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: U1264113.D Lab Sample ID: MB 240-329778/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/03/2018 13:00

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329778/4	U1264108.D	06/03/2018 11:04
TB-052318	240-96144-1	U1264119.D	06/03/2018 15:19
MSA-MW-24S-052318	240-96144-2	U1264120.D	06/03/2018 15:42
MSA-MW-24I-052318	240-96144-3	U1264121.D	06/03/2018 16:05
MSA-MW-30I-052318	240-96144-4	U1264122.D	06/03/2018 16:28
MSA-MW-45S-052318	240-96144-5	U1264123.D	06/03/2018 16:51
DMW-10S-052418	240-96144-6	U1264124.D	06/03/2018 17:14
DMW-10I-052418	240-96144-7	U1264125.D	06/03/2018 17:38
MSA-MW-21I-052418	240-96144-8	U1264126.D	06/03/2018 18:01
MSA-MW-21D-052418	240-96144-9	U1264127.D	06/03/2018 18:25
MSA-MW-45S-052318 MS	240-96144-5 MS	U1264128.D	06/03/2018 18:48
MSA-MW-45S-052318 MSD	240-96144-5 MSD	U1264129.D	06/03/2018 19:11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329778/9

Matrix: Water | Lab File ID: U1264113.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 13:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329778/9

Matrix: Water | Lab File ID: U1264113.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 13:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329778/9

Matrix: Water Lab File ID: U1264113.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 13:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	115		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329778/9

Matrix: Water Lab File ID: U1264113.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/03/2018 13:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329778 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329778/9

Matrix: Water | Lab File ID: U1264113.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/03/2018 13:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329778 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264108.D

Lab ID: LCS 240-329778/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	23.1	116	73-136	
1,1,1-Trichloroethane	20.0	22.8	114	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.8	104	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	28.9	145	65-144	*
1,1-Dichloroethane	20.0	23.6	118	74-120	
1,1-Dichloroethene	20.0	23.4	117	65-127	
1,1-Dichloropropene	20.0	22.2	111	80-122	
1,2,3-Trichlorobenzene	20.0	22.2	111	31-144	
1,2,3-Trichloropropane	20.0	20.9	105	53-134	
1,2,4-Trichlorobenzene	20.0	23.3	116	34-141	
1,2,4-Trimethylbenzene	20.0	22.3	112	80-120	
1,2-Dibromo-3-Chloropropane	20.0	22.3	111	50-130	
1,2-Dichlorobenzene	20.0	22.1	110	80-120	
1,2-Dichloroethane	20.0	19.7	98	68-133	
1,2-Dichloropropane	20.0	21.6	108	78-127	
1,3-Dichlorobenzene	20.0	21.9	109	80-120	
1,3-Dichloropropane	20.0	20.6	103	71-124	
1,4-Dichlorobenzene	20.0	21.8	109	80-120	
2,2-Dichloropropane	20.0	22.8	114	32-178	
2-Butanone (MEK)	40.0	45.7	114	43-149	
2-Chloroethyl vinyl ether	20.0	21.3	106	58-123	
2-Chlorotoluene	20.0	23.0	115	80-120	
2-Hexanone	40.0	39.6	99	28-169	
4-Chlorotoluene	20.0	22.5	112	79-120	
4-Isopropyltoluene	20.0	23.6	118	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	38.7	97	53-144	
Acetone	40.0	42.3	106	35-131	
Benzene	20.0	21.6	108	79-120	
Bromobenzene	20.0	21.7	109	73-120	
Bromoform	20.0	23.7	119	55-145	
Bromomethane	20.0	20.9	104	17-158	
Carbon disulfide	20.0	23.4	117	49-141	
Carbon tetrachloride	20.0	24.6	123	55-171	
Chlorobenzene	20.0	22.1	110	80-120	
Chlorodibromomethane	20.0	23.4	117	64-129	
Chloroethane	20.0	20.9	104	10-149	
Chloroform	20.0	22.7	113	80-120	
Chloromethane	20.0	21.2	106	59-124	
cis-1,2-Dichloroethene	20.0	22.7	113	77-120	
cis-1,3-Dichloropropene	20.0	22.0	110	75-120	
Dibromomethane	20.0	19.7	98	80-120	
Bromochloromethane	20.0	20.3	101	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264108.D

Lab ID: LCS 240-329778/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	27.3	136	42-141	
Bromodichloromethane	20.0	22.1	110	79-125	
tert-Butyl alcohol	200	250	125	52-136	
Ethylbenzene	20.0	21.3	107	80-120	
Hexachlorobutadiene	20.0	23.6	118	36-146	
Isopropylbenzene	20.0	22.3	111	80-128	
Methyl tert-butyl ether	20.0	21.5	108	73-120	
Methylene Chloride	20.0	21.8	109	64-140	
m-Xylene & p-Xylene	20.0	22.2	111	80-120	
Naphthalene	20.0	21.9	109	31-127	
n-Butylbenzene	20.0	22.4	112	60-137	
N-Propylbenzene	20.0	22.8	114	76-120	
o-Xylene	20.0	21.8	109	80-120	
sec-Butylbenzene	20.0	22.8	114	76-124	
Styrene	20.0	22.3	112	80-121	
Tetrachloroethene	20.0	21.6	108	80-122	
Toluene	20.0	22.1	111	78-120	
trans-1,2-Dichloroethene	20.0	22.8	114	74-124	
trans-1,3-Dichloropropene	20.0	21.3	106	67-120	
Trichloroethene	20.0	22.2	111	76-124	
Trichlorofluoromethane	20.0	26.0	130	27-176	
Vinyl acetate	20.0	25.6	128	42-141	
Vinyl chloride	20.0	22.1	111	65-124	
Xylenes, Total	40.0	44.0	110	80-120	
tert-Butylbenzene	20.0	22.7	113	79-120	
1,2-Dibromoethane	20.0	21.2	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264128.D

Lab ID: 240-96144-5 MS Client ID: MSA-MW-45S-052318 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20000	140 U	20600	103	67-142	
1,1,1-Trichloroethane	20000	240 U	21100	105	57-156	
1,1,2,2-Tetrachloroethane	20000	130 U	19000	95	51-123	
1,1,2-Trichlorotrifluoroethane	20000	410 U	25400	127	58-137	
1,1-Dichloroethane	20000	170 U	21600	108	69-122	
1,1-Dichloroethene	20000	190 U	21500	108	62-127	
1,1-Dichloropropene	20000	140 U	19800	99	55-136	
1,2,3-Trichlorobenzene	20000	540 U	19800	99	40-139	
1,2,3-Trichloropropane	20000	240 U	19000	95	41-152	
1,2,4-Trichlorobenzene	20000	990 J	20600	98	26-138	
1,2,4-Trimethylbenzene	20000	70 U	19200	96	64-120	
1,2-Dibromo-3-Chloropropane	20000	910 U	18600	93	48-130	
1,2-Dichlorobenzene	20000	150 U	19700	99	70-120	
1,2-Dichloroethane	20000	480 J	18800	92	64-138	
1,2-Dichloropropane	20000	150 U	19600	98	72-131	
1,3-Dichlorobenzene	20000	150 U	19000	95	71-120	
1,3-Dichloropropane	20000	210 U	18900	94	58-137	
1,4-Dichlorobenzene	20000	210 J	19300	96	72-120	
2,2-Dichloropropane	20000	310 U	19200	96	34-153	
2-Butanone (MEK)	40000	1200 U	42500	106	34-153	
2-Chloroethyl vinyl ether	20000	260 U	18100	91	10-120	
2-Chlorotoluene	20000	150 U	20300	101	52-134	
2-Hexanone	40000	540 U	34900	87	21-184	
4-Chlorotoluene	20000	90 U	19800	99	52-133	
4-Isopropyltoluene	20000	130 U	19900	99	70-120	
4-Methyl-2-pentanone (MIBK)	40000	420 U	35800	89	53-147	
Acetone	40000	5400 U	38900	97	19-133	
Benzene	20000	170 J	20300	101	69-127	
Bromobenzene	20000	120 U	19500	97	59-131	
Bromoform	20000	760 U	19100	96	61-135	
Bromomethane	20000	420 U	19800	99	10-148	
Carbon disulfide	20000	280 U	20900	104	46-143	
Carbon tetrachloride	20000	260 U	21100	105	53-175	
Chlorobenzene	20000	160 J	19900	99	76-120	
Chlorodibromomethane	20000	390 U	19700	98	62-131	
Chloroethane	20000	830 U	20300	101	10-141	
Chloroform	20000	130 U	21200	106	74-125	
Chloromethane	20000	200 U	19400	97	34-127	
cis-1,2-Dichloroethene	20000	21000	40700	99	69-127	
cis-1,3-Dichloropropene	20000	610 U	19400	97	68-120	
Dibromomethane	20000	90 U	19300	96	73-120	
Bromochloromethane	20000	140 U	19000	95	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264128.D

Lab ID: 240-96144-5 MS Client ID: MSA-MW-45S-052318 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20000	350 U	22700	113	45-130	
Bromodichloromethane	20000	170 U	19600	98	75-128	
tert-Butyl alcohol	200000	1700 U	229000	114	70-130	
Ethylbenzene	20000	110 U	19500	98	72-121	
Hexachlorobutadiene	20000	830 U	20400	102	30-134	
Isopropylbenzene	20000	90 U	19900	99	70-132	
Methyl tert-butyl ether	20000	70 U	19800	99	67-125	
Methylene Chloride	20000	2600 U	21000	105	52-137	
m-Xylene & p-Xylene	20000	80 U	20100	101	70-121	
Naphthalene	20000	320 U	19400	97	28-150	
n-Butylbenzene	20000	140 U	18900	95	38-133	
N-Propylbenzene	20000	150 U	19700	98	50-134	
o-Xylene	20000	90 U	20300	101	71-125	
sec-Butylbenzene	20000	130 U	19400	97	43-133	
Styrene	20000	100 U	20100	101	74-125	
Tetrachloroethene	20000	150 U	19600	98	69-126	
Toluene	20000	920 J	20500	98	69-125	
trans-1,2-Dichloroethene	20000	190 U	21200	106	66-131	
trans-1,3-Dichloropropene	20000	670 U	18000	90	59-120	
Trichloroethene	20000	35000	50900	81	68-129	
Trichlorofluoromethane	20000	450 U	23800	119	28-172	
Vinyl acetate	20000	190 U	22700	114	51-134	
Vinyl chloride	20000	13000	30900	88	55-123	
Xylenes, Total	40000	150 U	40400	101	71-122	
tert-Butylbenzene	20000	140 U	19400	97	48-131	
1,2-Dibromoethane	20000	120 U	19500	97	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264129.D

Lab ID: 240-96144-5 MSD Client ID: MSA-MW-45S-052318 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20000	21100	106	3	18	67-142	
1,1,1-Trichloroethane	20000	20900	104	1	13	57-156	
1,1,2,2-Tetrachloroethane	20000	19100	95	1	17	51-123	
1,1,2-Trichlorotrifluoroethane	20000	26000	130	2	35	58-137	
1,1-Dichloroethane	20000	21300	107	1	11	69-122	
1,1-Dichloroethene	20000	21100	105	2	14	62-127	
1,1-Dichloropropene	20000	19600	98	1	35	55-136	
1,2,3-Trichlorobenzene	20000	20600	103	4	35	40-139	
1,2,3-Trichloropropane	20000	18500	93	3	12	41-152	
1,2,4-Trichlorobenzene	20000	21800	104	6	35	26-138	
1,2,4-Trimethylbenzene	20000	19800	99	3	22	64-120	
1,2-Dibromo-3-Chloropropane	20000	20700	103	11	31	48-130	
1,2-Dichlorobenzene	20000	19800	99	1	19	70-120	
1,2-Dichloroethane	20000	18400	90	2	11	64-138	
1,2-Dichloropropane	20000	19700	98	0	12	72-131	
1,3-Dichlorobenzene	20000	19600	98	3	18	71-120	
1,3-Dichloropropane	20000	18900	94	0	35	58-137	
1,4-Dichlorobenzene	20000	19800	98	2	17	72-120	
2,2-Dichloropropane	20000	19200	96	0	35	34-153	
2-Butanone (MEK)	40000	44600	111	5	23	34-153	
2-Chloroethyl vinyl ether	20000	18000	90	1	35	10-120	
2-Chlorotoluene	20000	20400	102	1	35	52-134	
2-Hexanone	40000	35100	88	1	12	21-184	
4-Chlorotoluene	20000	19900	100	1	35	52-133	
4-Isopropyltoluene	20000	20600	103	3	22	70-120	
4-Methyl-2-pentanone (MIBK)	40000	36200	90	1	16	53-147	
Acetone	40000	38500	96	1	35	19-133	
Benzene	20000	19800	98	2	10	69-127	
Bromobenzene	20000	19700	98	1	35	59-131	
Bromoform	20000	19700	98	3	13	61-135	
Bromomethane	20000	19400	97	2	35	10-148	
Carbon disulfide	20000	21100	105	1	18	46-143	
Carbon tetrachloride	20000	21300	107	1	17	53-175	
Chlorobenzene	20000	19900	99	0	12	76-120	
Chlorodibromomethane	20000	20400	102	3	15	62-131	
Chloroethane	20000	19500	98	4	35	10-141	
Chloroform	20000	21100	105	1	11	74-125	
Chloromethane	20000	19500	98	1	25	34-127	
cis-1,2-Dichloroethene	20000	41000	101	1	11	69-127	
cis-1,3-Dichloropropene	20000	19500	97	0	13	68-120	
Dibromomethane	20000	18700	93	3	16	73-120	
Bromochloromethane	20000	18500	93	2	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264129.D

Lab ID: 240-96144-5 MSD Client ID: MSA-MW-45S-052318 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	20000	22500	112	1	34	45-130	
Bromodichloromethane	20000	19700	98	0	13	75-128	
tert-Butyl alcohol	200000	235000	117	3	35	70-130	
Ethylbenzene	20000	19000	95	3	15	72-121	
Hexachlorobutadiene	20000	20700	103	1	35	30-134	
Isopropylbenzene	20000	19600	98	1	16	70-132	
Methyl tert-butyl ether	20000	20000	100	1	12	67-125	
Methylene Chloride	20000	21100	106	0	12	52-137	
m-Xylene & p-Xylene	20000	19500	98	3	15	70-121	
Naphthalene	20000	20100	101	4	35	28-150	
n-Butylbenzene	20000	19100	96	1	35	38-133	
N-Propylbenzene	20000	20500	103	4	35	50-134	
o-Xylene	20000	19700	99	3	15	71-125	
sec-Butylbenzene	20000	19900	100	3	35	43-133	
Styrene	20000	19300	97	4	14	74-125	
Tetrachloroethene	20000	19300	97	1	18	69-126	
Toluene	20000	20300	97	1	14	69-125	
trans-1,2-Dichloroethene	20000	21300	106	0	11	66-131	
trans-1,3-Dichloropropene	20000	17800	89	1	14	59-120	
Trichloroethene	20000	50800	81	0	12	68-129	
Trichlorofluoromethane	20000	23600	118	1	26	28-172	
Vinyl acetate	20000	23000	115	1	12	51-134	
Vinyl chloride	20000	30500	86	1	12	55-123	
Xylenes, Total	40000	39200	98	3	14	71-122	
tert-Butylbenzene	20000	20000	100	3	35	48-131	
1,2-Dibromoethane	20000	19500	98	0	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: U1264144.D Lab Sample ID: MB 240-329972/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/04/2018 18:48

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329972/5	U1264141.D	06/04/2018 17:37
MSA-MW-45S-052318	240-96144-5	U1264148.D	06/04/2018 20:21
DMW-10I-052418	240-96144-7	U1264149.D	06/04/2018 20:45
MSA-MW-21I-052418	240-96144-8	U1264150.D	06/04/2018 21:08

VINYL CHLORIDE ONLY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329972/8

Matrix: Water | Lab File ID: U1264144.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329972 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264141.D

Lab ID: LCS 240-329972/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	26.7	133	42-141	
Bromodichloromethane	20.0	21.6	108	79-125	
tert-Butyl alcohol	200	237	118	52-136	
Ethylbenzene	20.0	21.1	106	80-120	
Hexachlorobutadiene	20.0	25.1	126	36-146	
Isopropylbenzene	20.0	22.1	110	80-128	
Methyl tert-butyl ether	20.0	22.1	111	73-120	
Methylene Chloride	20.0	22.6	113	64-140	
m-Xylene & p-Xylene	20.0	21.2	106	80-120	
Naphthalene	20.0	22.7	113	31-127	
n-Butylbenzene	20.0	22.4	112	60-137	
N-Propylbenzene	20.0	23.3	116	76-120	
o-Xylene	20.0	21.5	107	80-120	
sec-Butylbenzene	20.0	22.6	113	76-124	
Styrene	20.0	21.6	108	80-121	
Tetrachloroethene	20.0	22.0	110	80-122	
Toluene	20.0	21.1	106	78-120	
trans-1,2-Dichloroethene	20.0	23.5	117	74-124	
trans-1,3-Dichloropropene	20.0	20.2	101	67-120	
Trichloroethene	20.0	22.1	111	76-124	
Trichlorofluoromethane	20.0	26.3	131	27-176	
Vinyl acetate	20.0	24.7	124	42-141	
Vinyl chloride	20.0	21.6	108	65-124	
Xylenes, Total	40.0	42.7	107	80-120	
tert-Butylbenzene	20.0	22.5	112	79-120	
1,2-Dibromoethane	20.0	21.1	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: U1264288a.D Lab Sample ID: MB 240-330580/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/07/2018 19:14

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-330580/5	U1264285.D	06/07/2018 18:04
TB-052518	240-96206-1	U1264293.D	06/07/2018 21:10
MSA-MW-33I-052518	240-96206-3	U1264295.D	06/07/2018 21:57
MSA-MW-15I-052518	240-96206-4	U1264296.D	06/07/2018 22:20
MSA-MW-15D-052518	240-96206-5	U1264297a.D	06/07/2018 22:43
MSA-MW-3-052918	240-96257-2	U1264298.D	06/07/2018 23:06
MSA-MW-54I-052918	240-96257-3	U1264299a.D	06/07/2018 23:30
MSA-MW-54S-052918	240-96257-4	U1264300a.D	06/07/2018 23:53

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330580/8

Matrix: Water | Lab File ID: U1264288a.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330580/8

Matrix: Water | Lab File ID: U1264288a.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-330580/8

Matrix: Water Lab File ID: U1264288a.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/07/2018 19:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330580 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330580/8

Matrix: Water | Lab File ID: U1264288a.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330580/8

Matrix: Water | Lab File ID: U1264288a.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/07/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330580 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264285.D

Lab ID: LCS 240-330580/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.1	96	73-136	
1,1,1-Trichloroethane	20.0	19.6	98	64-147	
1,1,2,2-Tetrachloroethane	20.0	21.3	106	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	20.0	100	65-144	
1,1-Dichloroethane	20.0	20.6	103	74-120	
1,1-Dichloroethene	20.0	20.9	104	65-127	
1,1-Dichloropropene	20.0	20.0	100	80-122	
1,2,3-Trichlorobenzene	20.0	17.0	85	31-144	
1,2,3-Trichloropropane	20.0	19.9	100	53-134	
1,2,4-Trichlorobenzene	20.0	16.9	85	34-141	
1,2,4-Trimethylbenzene	20.0	21.0	105	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.2	96	50-130	
1,2-Dichlorobenzene	20.0	18.9	95	80-120	
1,2-Dichloroethane	20.0	19.3	97	68-133	
1,2-Dichloropropane	20.0	20.5	103	78-127	
1,3-Dichlorobenzene	20.0	18.4	92	80-120	
1,3-Dichloropropane	20.0	20.5	102	71-124	
1,4-Dichlorobenzene	20.0	18.0	90	80-120	
2,2-Dichloropropane	20.0	19.9	99	32-178	
2-Butanone (MEK)	40.0	41.8	105	43-149	
2-Chloroethyl vinyl ether	20.0	22.2	111	58-123	
2-Chlorotoluene	20.0	19.7	98	80-120	
2-Hexanone	40.0	43.2	108	28-169	
4-Chlorotoluene	20.0	20.0	100	79-120	
4-Isopropyltoluene	20.0	20.8	104	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	41.2	103	53-144	
Acetone	40.0	43.0	108	35-131	
Benzene	20.0	19.7	99	79-120	
Bromobenzene	20.0	18.8	94	73-120	
Bromoform	20.0	17.7	89	55-145	
Bromomethane	20.0	17.8	89	17-158	
Carbon disulfide	20.0	18.1	90	49-141	
Carbon tetrachloride	20.0	18.9	95	55-171	
Chlorobenzene	20.0	19.5	97	80-120	
Chlorodibromomethane	20.0	19.0	95	64-129	
Chloroethane	20.0	20.2	101	10-149	
Chloroform	20.0	19.9	100	80-120	
Chloromethane	20.0	17.6	88	59-124	
cis-1,2-Dichloroethene	20.0	18.9	94	77-120	
cis-1,3-Dichloropropene	20.0	20.4	102	75-120	
Dibromomethane	20.0	16.3	81	80-120	
Bromochloromethane	20.0	18.2	91	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264285.D

Lab ID: LCS 240-330580/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.8	69	42-141	
Bromodichloromethane	20.0	19.9	99	79-125	
tert-Butyl alcohol	200	214	107	52-136	
Ethylbenzene	20.0	20.1	100	80-120	
Hexachlorobutadiene	20.0	15.3	77	36-146	
Isopropylbenzene	20.0	20.5	102	80-128	
Methyl tert-butyl ether	20.0	20.6	103	73-120	
Methylene Chloride	20.0	20.2	101	64-140	
m-Xylene & p-Xylene	20.0	20.2	101	80-120	
Naphthalene	20.0	18.5	93	31-127	
n-Butylbenzene	20.0	20.8	104	60-137	
N-Propylbenzene	20.0	20.2	101	76-120	
o-Xylene	20.0	20.2	101	80-120	
sec-Butylbenzene	20.0	20.8	104	76-124	
Styrene	20.0	20.3	102	80-121	
Tetrachloroethene	20.0	17.6	88	80-122	
Toluene	20.0	20.6	103	78-120	
trans-1,2-Dichloroethene	20.0	20.3	102	74-124	
trans-1,3-Dichloropropene	20.0	19.4	97	67-120	
Trichloroethene	20.0	17.9	89	76-124	
Trichlorofluoromethane	20.0	19.7	99	27-176	
Vinyl acetate	20.0	25.1	126	42-141	
Vinyl chloride	20.0	18.6	93	65-124	
Xylenes, Total	40.0	40.4	101	80-120	
tert-Butylbenzene	20.0	20.1	101	79-120	
1,2-Dibromoethane	20.0	19.4	97	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: U1264316.D Lab Sample ID: MB 240-330756/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/08/2018 18:53

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-330756/5	U1264313a.D	06/08/2018 17:44
MSA-MW-33S-052518	240-96206-2	U1264317.D	06/08/2018 19:17
TB-053018	240-96362-1	U1264318.D	06/08/2018 19:40
DMW-1S-053018	240-96362-2	U1264319.D	06/08/2018 20:03
DMW-1A-053018	240-96362-3	U1264320.D	06/08/2018 20:27
DMW-1B-053018	240-96362-4	U1264321.D	06/08/2018 20:50
MSA-MW-19D-053018	240-96362-5	U1264322.D	06/08/2018 21:13
MSA-MW-19D-053018 MS	240-96362-5 MS	U1264337.D	06/09/2018 03:02
MSA-MW-19D-053018 MSD	240-96362-5 MSD	U1264338.D	06/09/2018 03:25

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330756/8

Matrix: Water | Lab File ID: U1264316.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 18:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330756/8

Matrix: Water | Lab File ID: U1264316.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 18:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-330756/8

Matrix: Water Lab File ID: U1264316.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 18:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	112		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-330756/8

Matrix: Water Lab File ID: U1264316.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/08/2018 18:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330756 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330756/8

Matrix: Water | Lab File ID: U1264316.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/08/2018 18:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330756 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264313a.D

Lab ID: LCS 240-330756/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	18.5	93	73-136	
1,1,1-Trichloroethane	20.0	18.8	94	64-147	
1,1,2,2-Tetrachloroethane	20.0	21.4	107	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	18.5	92	65-144	
1,1-Dichloroethane	20.0	20.1	100	74-120	
1,1-Dichloroethene	20.0	20.5	102	65-127	
1,1-Dichloropropene	20.0	18.9	94	80-122	
1,2,3-Trichlorobenzene	20.0	16.8	84	31-144	
1,2,3-Trichloropropane	20.0	21.1	106	53-134	
1,2,4-Trichlorobenzene	20.0	16.7	84	34-141	
1,2,4-Trimethylbenzene	20.0	21.5	108	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.7	89	50-130	
1,2-Dichlorobenzene	20.0	18.9	94	80-120	
1,2-Dichloroethane	20.0	19.3	97	68-133	
1,2-Dichloropropane	20.0	20.4	102	78-127	
1,3-Dichlorobenzene	20.0	18.6	93	80-120	
1,3-Dichloropropane	20.0	19.1	95	71-124	
1,4-Dichlorobenzene	20.0	18.2	91	80-120	
2,2-Dichloropropane	20.0	19.0	95	32-178	
2-Butanone (MEK)	40.0	38.1	95	43-149	
2-Chloroethyl vinyl ether	20.0	21.8	109	58-123	
2-Chlorotoluene	20.0	20.3	102	80-120	
2-Hexanone	40.0	40.7	102	28-169	
4-Chlorotoluene	20.0	20.1	100	79-120	
4-Isopropyltoluene	20.0	20.7	103	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	38.6	96	53-144	
Acetone	40.0	38.9	97	35-131	
Benzene	20.0	19.7	99	79-120	
Bromobenzene	20.0	18.2	91	73-120	
Bromoform	20.0	17.4	87	55-145	
Bromomethane	20.0	17.0	85	17-158	
Carbon disulfide	20.0	17.8	89	49-141	
Carbon tetrachloride	20.0	18.0	90	55-171	
Chlorobenzene	20.0	19.0	95	80-120	
Chlorodibromomethane	20.0	18.5	92	64-129	
Chloroethane	20.0	19.7	98	10-149	
Chloroform	20.0	19.1	95	80-120	
Chloromethane	20.0	17.6	88	59-124	
cis-1,2-Dichloroethene	20.0	17.8	89	77-120	
cis-1,3-Dichloropropene	20.0	20.3	102	75-120	
Dibromomethane	20.0	16.0	80	80-120	
Bromochloromethane	20.0	18.0	90	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264313a.D

Lab ID: LCS 240-330756/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	12.2	61	42-141	
Bromodichloromethane	20.0	19.7	99	79-125	
tert-Butyl alcohol	200	190	95	52-136	
Ethylbenzene	20.0	19.2	96	80-120	
Hexachlorobutadiene	20.0	15.2	76	36-146	
Isopropylbenzene	20.0	19.6	98	80-128	
Methyl tert-butyl ether	20.0	19.8	99	73-120	
Methylene Chloride	20.0	19.4	97	64-140	
m-Xylene & p-Xylene	20.0	19.2	96	80-120	
Naphthalene	20.0	18.2	91	31-127	
n-Butylbenzene	20.0	21.0	105	60-137	
N-Propylbenzene	20.0	20.7	103	76-120	
o-Xylene	20.0	20.0	100	80-120	
sec-Butylbenzene	20.0	20.6	103	76-124	
Styrene	20.0	19.7	98	80-121	
Tetrachloroethene	20.0	16.7	84	80-122	
Toluene	20.0	20.3	102	78-120	
trans-1,2-Dichloroethene	20.0	19.8	99	74-124	
trans-1,3-Dichloropropene	20.0	19.6	98	67-120	
Trichloroethene	20.0	17.4	87	76-124	
Trichlorofluoromethane	20.0	18.4	92	27-176	
Vinyl acetate	20.0	26.0	130	42-141	
Vinyl chloride	20.0	18.5	93	65-124	
Xylenes, Total	40.0	39.2	98	80-120	
tert-Butylbenzene	20.0	20.1	100	79-120	
1,2-Dibromoethane	20.0	18.6	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264337.D

Lab ID: 240-96362-5 MS Client ID: MSA-MW-19D-053018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	0.14 U	18.6	93	67-142	
1,1,1-Trichloroethane	20.0	0.24 U	18.7	94	57-156	
1,1,2,2-Tetrachloroethane	20.0	0.13 U	20.6	103	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	0.41 U	19.2	96	58-137	
1,1-Dichloroethane	20.0	0.17 U	20.7	104	69-122	
1,1-Dichloroethene	20.0	0.19 U	22.2	111	62-127	
1,1-Dichloropropene	20.0	0.14 U	19.7	98	55-136	
1,2,3-Trichlorobenzene	20.0	0.54 U	15.3	76	40-139	
1,2,3-Trichloropropane	20.0	0.24 U	19.6	98	41-152	
1,2,4-Trichlorobenzene	20.0	0.26 U	15.0	75	26-138	
1,2,4-Trimethylbenzene	20.0	0.070 U	19.8	99	64-120	
1,2-Dibromo-3-Chloropropane	20.0	0.91 U	16.5	82	48-130	
1,2-Dichlorobenzene	20.0	0.15 U	17.9	89	70-120	
1,2-Dichloroethane	20.0	0.21 U	19.8	99	64-138	
1,2-Dichloropropane	20.0	0.15 U	21.1	105	72-131	
1,3-Dichlorobenzene	20.0	0.15 U	17.3	87	71-120	
1,3-Dichloropropane	20.0	0.21 U	20.2	101	58-137	
1,4-Dichlorobenzene	20.0	0.16 U	16.9	84	72-120	
2,2-Dichloropropane	20.0	0.31 U	17.1	86	34-153	
2-Butanone (MEK)	40.0	1.2 U	39.2	98	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0.26 U	0	10-120	F1
2-Chlorotoluene	20.0	0.15 U	18.7	94	52-134	
2-Hexanone	40.0	0.54 U	41.5	104	21-184	
4-Chlorotoluene	20.0	0.090 U	18.3	91	52-133	
4-Isopropyltoluene	20.0	0.13 U	19.2	96	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	0.42 U	38.2	95	53-147	
Acetone	40.0	5.4 U	45.0	113	19-133	
Benzene	20.0	0.13 U	20.1	100	69-127	
Bromobenzene	20.0	0.12 U	17.0	85	59-131	
Bromoform	20.0	0.76 U	15.4	77	61-135	
Bromomethane	20.0	0.42 U	18.8	94	10-148	
Carbon disulfide	20.0	0.28 U	18.4	92	46-143	
Carbon tetrachloride	20.0	0.59 J	18.0	87	53-175	
Chlorobenzene	20.0	0.14 U	18.8	94	76-120	
Chlorodibromomethane	20.0	0.39 U	17.4	87	62-131	
Chloroethane	20.0	0.83 U	21.1	105	10-141	
Chloroform	20.0	0.32 J	19.6	96	74-125	
Chloromethane	20.0	0.20 U	18.3	92	34-127	
cis-1,2-Dichloroethene	20.0	1.6	19.6	90	69-127	
cis-1,3-Dichloropropene	20.0	0.61 U	19.1	96	68-120	
Dibromomethane	20.0	0.090 U	15.7	78	73-120	
Bromochloromethane	20.0	0.14 U	19.4	97	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264337.D

Lab ID: 240-96362-5 MS Client ID: MSA-MW-19D-053018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	0.35 U	11.8	59	45-130	
Bromodichloromethane	20.0	0.17 U	19.5	97	75-128	
tert-Butyl alcohol	200	1.7 U	219	109	70-130	
Ethylbenzene	20.0	0.11 U	19.1	96	72-121	
Hexachlorobutadiene	20.0	0.83 U	13.8	69	30-134	
Isopropylbenzene	20.0	0.090 U	19.4	97	70-132	
Methyl tert-butyl ether	20.0	0.070 U	21.1	105	67-125	
Methylene Chloride	20.0	2.6 U	21.7	109	52-137	
m-Xylene & p-Xylene	20.0	0.080 U	19.2	96	70-121	
Naphthalene	20.0	0.32 U	17.6	88	28-150	
n-Butylbenzene	20.0	0.14 U	19.3	96	38-133	
N-Propylbenzene	20.0	0.15 U	18.7	94	50-134	
o-Xylene	20.0	0.090 U	19.6	98	71-125	
sec-Butylbenzene	20.0	0.13 U	18.9	95	43-133	
Styrene	20.0	0.10 U	19.6	98	74-125	
Tetrachloroethene	20.0	0.15 U	16.2	81	69-126	
Toluene	20.0	0.14 U	20.8	104	69-125	
trans-1,2-Dichloroethene	20.0	0.19 U	20.9	105	66-131	
trans-1,3-Dichloropropene	20.0	0.67 U	18.7	93	59-120	
Trichloroethene	20.0	16	31.9	81	68-129	
Trichlorofluoromethane	20.0	0.45 U	18.7	94	28-172	
Vinyl acetate	20.0	0.19 U	24.2	121	51-134	
Vinyl chloride	20.0	0.30 J	19.5	96	55-123	
Xylenes, Total	40.0	0.15 U	38.8	97	71-122	
tert-Butylbenzene	20.0	0.14 U	18.7	93	48-131	
1,2-Dibromoethane	20.0	0.12 U	18.9	94	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264338.D

Lab ID: 240-96362-5 MSD Client ID: MSA-MW-19D-053018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.2	96	3	18	67-142	
1,1,1-Trichloroethane	20.0	19.8	99	5	13	57-156	
1,1,2,2-Tetrachloroethane	20.0	21.9	110	6	17	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	18.6	93	3	35	58-137	
1,1-Dichloroethane	20.0	21.3	107	3	11	69-122	
1,1-Dichloroethene	20.0	22.4	112	1	14	62-127	
1,1-Dichloropropene	20.0	20.0	100	2	35	55-136	
1,2,3-Trichlorobenzene	20.0	16.5	82	8	35	40-139	
1,2,3-Trichloropropane	20.0	21.3	106	8	12	41-152	
1,2,4-Trichlorobenzene	20.0	16.5	83	10	35	26-138	
1,2,4-Trimethylbenzene	20.0	21.2	106	7	22	64-120	
1,2-Dibromo-3-Chloropropane	20.0	17.4	87	5	31	48-130	
1,2-Dichlorobenzene	20.0	19.4	97	8	19	70-120	
1,2-Dichloroethane	20.0	20.8	104	5	11	64-138	
1,2-Dichloropropane	20.0	21.9	109	4	12	72-131	
1,3-Dichlorobenzene	20.0	18.8	94	8	18	71-120	
1,3-Dichloropropane	20.0	21.1	105	4	35	58-137	
1,4-Dichlorobenzene	20.0	18.4	92	8	17	72-120	
2,2-Dichloropropane	20.0	18.7	93	9	35	34-153	
2-Butanone (MEK)	40.0	41.3	103	5	23	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0	NC	35	10-120	F1
2-Chlorotoluene	20.0	20.7	103	10	35	52-134	
2-Hexanone	40.0	44.5	111	7	12	21-184	
4-Chlorotoluene	20.0	19.8	99	8	35	52-133	
4-Isopropyltoluene	20.0	20.5	102	7	22	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	40.8	102	7	16	53-147	
Acetone	40.0	46.1	115	2	35	19-133	
Benzene	20.0	21.0	105	4	10	69-127	
Bromobenzene	20.0	19.2	96	12	35	59-131	
Bromoform	20.0	17.0	85	9	13	61-135	
Bromomethane	20.0	18.6	93	1	35	10-148	
Carbon disulfide	20.0	18.7	94	2	18	46-143	
Carbon tetrachloride	20.0	19.3	93	7	17	53-175	
Chlorobenzene	20.0	19.4	97	3	12	76-120	
Chlorodibromomethane	20.0	18.4	92	5	15	62-131	
Chloroethane	20.0	21.1	106	0	35	10-141	
Chloroform	20.0	20.9	103	6	11	74-125	
Chloromethane	20.0	18.4	92	0	25	34-127	
cis-1,2-Dichloroethene	20.0	20.9	97	7	11	69-127	
cis-1,3-Dichloropropene	20.0	20.5	103	7	13	68-120	
Dibromomethane	20.0	16.3	82	4	16	73-120	
Bromochloromethane	20.0	19.2	96	1	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264338.D

Lab ID: 240-96362-5 MSD Client ID: MSA-MW-19D-053018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	11.4	57	4	34	45-130	
Bromodichloromethane	20.0	20.6	103	6	13	75-128	
tert-Butyl alcohol	200	222	111	2	35	70-130	
Ethylbenzene	20.0	19.8	99	4	15	72-121	
Hexachlorobutadiene	20.0	14.9	74	7	35	30-134	
Isopropylbenzene	20.0	19.8	99	2	16	70-132	
Methyl tert-butyl ether	20.0	21.5	107	2	12	67-125	
Methylene Chloride	20.0	21.8	109	0	12	52-137	
m-Xylene & p-Xylene	20.0	20.0	100	4	15	70-121	
Naphthalene	20.0	18.4	92	4	35	28-150	
n-Butylbenzene	20.0	20.3	102	5	35	38-133	
N-Propylbenzene	20.0	20.0	100	6	35	50-134	
o-Xylene	20.0	20.4	102	4	15	71-125	
sec-Butylbenzene	20.0	20.5	102	8	35	43-133	
Styrene	20.0	20.3	102	3	14	74-125	
Tetrachloroethene	20.0	16.6	83	2	18	69-126	
Toluene	20.0	21.0	105	1	14	69-125	
trans-1,2-Dichloroethene	20.0	21.3	107	2	11	66-131	
trans-1,3-Dichloropropene	20.0	19.3	97	3	14	59-120	
Trichloroethene	20.0	33.9	91	6	12	68-129	
Trichlorofluoromethane	20.0	19.1	96	2	26	28-172	
Vinyl acetate	20.0	25.6	128	6	12	51-134	
Vinyl chloride	20.0	19.8	97	1	12	55-123	
Xylenes, Total	40.0	40.4	101	4	14	71-122	
tert-Butylbenzene	20.0	20.1	101	7	35	48-131	
1,2-Dibromoethane	20.0	19.6	98	4	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3839.D BFB Injection Date: 05/24/2018

Instrument ID: A3UX12 BFB Injection Time: 11:19

Analysis Batch No.: 328331

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	87.1	
175	5.0 - 9.0 % of mass 174	6.9	(8.0) 1
176	95.0 - 101.0 % of mass 174	85.5	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-328331/10	U1263873.D	05/24/2018	12:04
	STD8260 240-328331/11	U1263874.D	05/24/2018	12:27
	STD8260 240-328331/12	U1263875.D	05/24/2018	12:51
	ICIS 240-328331/13	U1263876a.D	05/24/2018	13:14
	STD8260 240-328331/14	U1263877.D	05/24/2018	13:37
	STD8260 240-328331/15	U1263878.D	05/24/2018	14:01
	STD8260 240-328331/16	U1263879.D	05/24/2018	14:24
	ICV 240-328331/17	U1263880.D	05/24/2018	14:59
	STDA9 240-328331/20	U1263883.D	05/24/2018	16:09
	STDA9 240-328331/21	U1263884.D	05/24/2018	16:32
	STDA9 240-328331/22	U1263885.D	05/24/2018	16:55
	STDA9 240-328331/23	U1263886.D	05/24/2018	17:19
	STDA9 240-328331/24	U1263887.D	05/24/2018	17:42
	STDA9 240-328331/25	U1263888.D	05/24/2018	18:05
	ICV 240-328331/26	U1263889.D	05/24/2018	18:28

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2603	0.1596 0.2588	0.1879	0.2097	0.2205	Ave		0.2161			0.1000	18.3		20.0			
Chloromethane	0.2074 0.1888	0.1877 0.1804	0.1977	0.1856	0.1846	Ave		0.1903			0.1000	4.8		20.0			
Vinyl chloride	0.2355 0.2253	0.2131 0.2200	0.2267	0.2184	0.2153	Ave		0.2220			0.1000	3.5		20.0			
Butadiene	0.1940 0.1994	0.1514 0.1974	0.1906	0.1873	0.1866	Ave		0.1867				8.7		20.0			
Bromomethane	0.2520 0.2446	0.2310 0.2444	0.2365	0.2318	0.2332	Ave		0.2391			0.0500	3.4		20.0			
Chloroethane	+++++ 0.1670	0.1522 0.1660	0.1773	0.1694	0.1669	Ave		0.1665			0.0500	4.9		20.0			
Dichlorofluoromethane	0.4008 0.3897	0.3845 0.3741	0.4047	0.3774	0.3746	Ave		0.3865				3.2		20.0			
Trichlorofluoromethane	0.3368 0.4334	0.3271 0.4354	0.3952	0.3978	0.4019	Ave		0.3897			0.1000	11.0		20.0			
Ethyl ether	0.1493 0.1341	0.1445 0.1280	0.1452	0.1377	0.1283	Ave		0.1382				6.1		20.0			
Acrolein	+++++ 0.0159	0.0173 0.0153	0.0166	0.0153	0.0155	Ave		0.0160				5.2		20.0			
1,1-Dichloroethene	0.2449 0.2791	0.2600 0.2719	0.2932	0.2858	0.2708	Ave		0.2722			0.1000	5.9		20.0			
1,1,2-Trichlorotrifluoroethane	0.1633 0.2132	0.1574 0.2146	0.1765	0.2150	0.1920	Ave		0.1903			0.0500	13.1		20.0			
Acetone	0.1362 0.0312	0.0816 0.0284	0.0371	0.0355	0.0297	Lin1	0.1094	0.0290			0.0100	9.0			0.9950		0.9900
Iodomethane	0.3231 0.3397	0.3218 0.3308	0.3571	0.3402	0.3221	Ave		0.3335				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6495 0.5749	0.5392 0.5649	0.5900	0.5818	0.5519	Ave		0.5789			0.1000	6.2		20.0			
3-Chloro-1-propene	0.2475 0.1995	0.2215 0.1969	0.2149	0.2060	0.1896	Ave		0.2108				9.2		20.0			
Methyl acetate	+++++ 0.0774	0.0837 0.0748	0.0851	0.0806	0.0755	Ave		0.0795		*	0.1000	5.4		20.0			
Methylene Chloride	0.4380 0.1993	0.3213 0.1925	0.2268	0.2134	0.1923	Lin1	0.1303	0.1948			0.1000	6.8			0.9980		0.9900
tert-Butyl alcohol	0.0171 0.0129	0.0156 0.0126	0.0141	0.0133	0.0121	Ave		0.0139				12.8		20.0			
Acrylonitrile	0.0417 0.0394	0.0367 0.0384	0.0414	0.0395	0.0376	Ave		0.0392				4.7		20.0			
trans-1,2-Dichloroethene	0.2490 0.2464	0.2315 0.2456	0.2530	0.2538	0.2385	Ave		0.2454			0.1000	3.3		20.0			
Methyl tert-butyl ether	0.5466 0.5478	0.5391 0.5434	0.5741	0.5509	0.5300	Ave		0.5474			0.1000	2.5		20.0			
Hexane	0.1442 0.2124	0.1444 0.2137	0.1655	0.2165	0.1829	Ave		0.1828				17.6		20.0			
1,1-Dichloroethane	0.2725 0.2856	0.2504 0.2795	0.2801	0.2750	0.2700	Ave		0.2733			0.2000	4.2		20.0			
Vinyl acetate	0.2049 0.1712	0.1486 0.1712	0.1684	0.1714	0.1637	Ave		0.1713				9.9		20.0			
2,2-Dichloropropane	0.3326 0.3112	0.3168 0.3086	0.3113	0.3073	0.2950	Ave		0.3118				3.6		20.0			
cis-1,2-Dichloroethene	0.2183 0.2381	0.2079 0.2310	0.2360	0.2380	0.2289	Ave		0.2283			0.1000	5.0		20.0			
2-Butanone (MEK)	0.0173 0.0168	0.0153 0.0169	0.0162	0.0165	0.0173	Ave		0.0166			0.0100	4.4		20.0			
Bromochloromethane	0.1044 0.1207	0.1401 0.1163	0.1338	0.1249	0.1142	Ave		0.1221				9.9		20.0			
Tetrahydrofuran	0.0443 0.0288	0.0332 0.0272	0.0329	0.0292	0.0268	Ave		0.0318				19.2		20.0			
Chloroform	0.3438 0.3710	0.3124 0.3603	0.3733	0.3631	0.3548	Ave		0.3541			0.2000	5.9		20.0			
1,1,1-Trichloroethane	0.3716 0.3736	0.3211 0.3687	0.3683	0.3664	0.3544	Ave		0.3606			0.1000	5.1		20.0			
Cyclohexane	0.2329 0.3488	0.2672 0.3461	0.3014	0.3503	0.3172	Ave		0.3091			0.1000	14.7		20.0			
1,1-Dichloropropene	0.2929 0.2971	0.2649 0.2887	0.2947	0.3019	0.2853	Ave		0.2894				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2662 0.3269	0.2488 0.3244	0.3003	0.3102	0.3070	Ave		0.2977			0.1000	9.9		20.0			
Isobutyl alcohol	0.0029 0.0027	0.0033 0.0026	0.0027	0.0027	0.0028	Ave		0.0028				8.3		20.0			
Benzene	0.8220 0.8347	0.8632 0.8053	0.8648	0.8617	0.8164	Ave		0.8383			0.5000	3.0		20.0			
1,2-Dichloroethane	0.2781 0.2490	0.2459 0.2375	0.2674	0.2543	0.2422	Ave		0.2535			0.1000	5.7		20.0			
n-Heptane	+++++ 0.1461	0.7106 0.1358	0.1626	0.1663	0.1391	Lin1	0.5718	0.1267				11.1			0.9960		0.9900
Trichloroethene	0.2773 0.2678	0.2388 0.2554	0.2699	0.2673	0.2548	Ave		0.2616			0.1500	4.9		20.0			
Methylcyclohexane	0.3305 0.4054	0.2970 0.4008	0.3354	0.4164	0.3766	Ave		0.3660			0.1000	12.4		20.0			
1,2-Dichloropropane	0.1712 0.1672	0.1493 0.1616	0.1772	0.1756	0.1655	Ave		0.1668			0.1000	5.7		20.0			
Dibromomethane	0.1515 0.1343	0.1266 0.1299	0.1422	0.1375	0.1292	Ave		0.1359				6.4		20.0			
1,4-Dioxane	+++++ 0.0009	0.0006 0.0009	0.0009	0.0010	0.0009	Ave		0.0009				13.1		20.0			
Bromodichloromethane	0.2416 0.2938	0.2446 0.2857	0.2836	0.2940	0.2801	Ave		0.2748			0.1500	8.1		20.0			
2-Chloroethyl vinyl ether	0.0806 0.0946	0.0897 0.0919	0.1013	0.0967	0.0908	Ave		0.0922				7.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.3094	0.2730 0.3008	0.3091	0.3181	0.2975	Ave		0.3013			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.1140 0.1171	0.1013 0.1094	0.1240	0.1197	0.1134	Ave		0.1141			0.0500	6.4		20.0			
Toluene	1.3467 1.3118	1.1191 1.2374	1.3358	1.3489	1.2626	Ave		1.2803			0.4000	6.5		20.0			
trans-1,3-Dichloropropene	0.3185 0.3610	0.3260 0.3476	0.3434	0.3500	0.3436	Ave		0.3414			0.1000	4.3		20.0			
Ethyl methacrylate	0.2428 0.2914	0.1957 0.2820	0.2901	0.2943	0.2828	Ave		0.2684				13.6		20.0			
1,1,2-Trichloroethane	0.2852 0.2262	0.2091 0.2131	0.2311	0.2343	0.2150	Ave		0.2306			0.1000	11.2		20.0			
Tetrachloroethene	0.3640 0.3537	0.3678 0.3338	0.3594	0.3555	0.3378	Ave		0.3532			0.1500	3.6		20.0			
1,3-Dichloropropane	0.3663 0.3709	0.3736 0.3436	0.3924	0.3874	0.3539	Ave		0.3697				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1137 0.1004	0.0944 0.0942	0.0980	0.1077	0.0963	Ave		0.1007			0.0500	7.3		20.0			
Chlorodibromomethane	0.2426 0.2756	0.2085 0.2695	0.2562	0.2580	0.2589	Ave		0.2528				8.8		20.0			
1,2-Dibromoethane	0.2253 0.2319	0.2226 0.2237	0.2249	0.2389	0.2258	Ave		0.2276				2.5		20.0			
Chlorobenzene	0.9032 0.8827	0.8855 0.8358	0.9087	0.9064	0.8416	Ave		0.8806			0.3000	3.4		20.0			
1,1,1,2-Tetrachloroethane	0.2269 0.3044	0.2708 0.2998	0.2923	0.3039	0.2896	Ave		0.2840				9.8		20.0			
Ethylbenzene	0.5365 0.5247	0.4708 0.4913	0.5155	0.5171	0.4914	Ave		0.5068				4.5		20.0			
m-Xylene & p-Xylene	0.5462 0.6441	0.5853 0.6064	0.6290	0.6595	0.6120	Ave		0.6118				6.2		20.0			
o-Xylene	0.5661 0.6282	0.5236 0.5896	0.6127	0.6224	0.5928	Ave		0.5908				6.2		20.0			
Styrene	0.8186 1.0437	0.8060 1.0026	0.9867	1.0463	0.9911	Ave		0.9564			0.3000	10.6		20.0			
Bromoform	0.1105 0.1602	0.1050 0.1610	0.1327	0.1459	0.1493	Ave		0.1378			0.1000	16.4		20.0			
Isopropylbenzene	1.3938 1.6579	1.3584 1.5726	1.6265	1.6491	1.6098	Ave		1.5526			0.1000	8.0		20.0			
1,1,2,2-Tetrachloroethane	0.5045 0.4821	0.5217 0.4622	0.5362	0.5136	0.4747	Ave		0.4993			0.3000	5.4		20.0			
Bromobenzene	0.7775 0.6744	0.6592 0.6375	0.7145	0.6830	0.6534	Ave		0.6856				6.9		20.0			
1,2,3-Trichloropropane	0.2212 0.1853	0.1986 0.1774	0.2004	0.2035	0.1816	Ave		0.1954				7.8		20.0			
trans-1,4-Dichloro-2-butene	0.1209 0.1066	0.1082 0.1041	0.1067	0.1106	0.1087	Ave		0.1094				5.0		20.0			
N-Propylbenzene	0.7810 0.8362	0.7719 0.7988	0.8577	0.8470	0.8190	Ave		0.8159				4.1		20.0			
2-Chlorotoluene	0.5876 0.6916	0.6326 0.6547	0.7137	0.7013	0.6731	Ave		0.6649				6.6		20.0			
1,3,5-Trimethylbenzene	2.1686 2.4046	2.1972 2.2268	2.5058	2.4349	2.3842	Ave		2.3317				5.7		20.0			
4-Chlorotoluene	0.6197 0.7362	0.7190 0.6968	0.7891	0.7523	0.7173	Ave		0.7186				7.3		20.0			
tert-Butylbenzene	1.8792 2.1952	2.1226 2.0625	2.2747	2.2647	2.1429	Ave		2.1345				6.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1653 2.4838	2.1121 2.3064	2.5623	2.5789	2.4738	Ave		2.3832				8.0		20.0			
sec-Butylbenzene	2.7737 3.1879	2.9667 2.9457	3.2622	3.2796	3.1613	Ave		3.0824				6.2		20.0			
1,3-Dichlorobenzene	1.5385 1.4184	1.3127 1.3284	1.4509	1.4168	1.3707	Ave		1.4052			0.6000	5.5		20.0			
4-Isopropyltoluene	2.2676 2.7935	2.2972 2.6408	2.8270	2.9023	2.7638	Ave		2.6417				9.8		20.0			
1,4-Dichlorobenzene	1.4706 1.4265	1.4330 1.3421	1.5140	1.4335	1.4032	Ave		1.4318			0.5000	3.7		20.0			
n-Butylbenzene	1.9934 2.2812	2.0508 2.1308	2.2919	2.4064	2.2477	Ave		2.2003				6.7		20.0			
1,2-Dichlorobenzene	1.3934 1.3187	1.2311 1.2432	1.3592	1.3305	1.2923	Ave		1.3098			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.1032 0.1100	0.0809 0.1011	0.1044	0.1122	0.1037	Ave		0.1022			0.0500	10.0		20.0			
1,2,4-Trichlorobenzene	0.7311 0.8173	0.7877 0.7727	0.8469	0.8445	0.7941	Ave		0.7992			0.2000	5.1		20.0			
Hexachlorobutadiene	0.2879 0.3170	0.2808 0.2948	0.3381	0.3375	0.3085	Ave		0.3092				7.4		20.0			
Naphthalene	1.6292 1.8963	1.5873 1.7441	1.9389	1.9038	1.8201	Ave		1.7885				7.8		20.0			
1,2,3-Trichlorobenzene	0.7541 0.7429	0.7203 0.6908	0.7879	0.7603	0.7277	Ave		0.7406				4.2		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2216	0.2440 0.2155	0.2291	0.2485	0.2201	Ave		0.2298				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2164	0.2762 0.2040	0.2290	0.2496	0.2251	Ave		0.2334				11.1		20.0			
Toluene-d8 (Surr)	+++++ 1.1675	1.1849 1.0961	1.1790	1.3154	1.1696	Ave		1.1854				6.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4427	0.5009 0.4124	0.4521	0.4866	0.4365	Ave		0.4552				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0149 0.0086	0.0117	0.0096	0.0091	0.0087	Lin1	0.0331	0.0087				5.1			0.9990		0.9900
Diisopropyl ether	0.2136 0.1661	0.1537	0.1706	0.1671	0.1641	Ave		0.1725				12.1		20.0			
2-Chloro-1,3-butadiene	0.2218 0.2515	0.2229	0.2470	0.2431	0.2439	Ave		0.2384				5.4		20.0			
Ethyl tert-butyl ether	0.4589 0.4718	0.4486	0.4746	0.4744	0.4625	Ave		0.4651				2.2		20.0			
Ethyl acetate	0.0909 0.0956	0.1013	0.0981	0.0965	0.0934	Ave		0.0960				3.8		20.0			
Propionitrile	0.0135 0.0124	0.0112	0.0123	0.0130	0.0121	Ave		0.0124				6.4		20.0			
Methacrylonitrile	0.0559 0.0581	0.0518	0.0576	0.0577	0.0565	Ave		0.0563				4.2		20.0			
Tert-amyl methyl ether	0.5437 0.6092	0.5168	0.5806	0.5993	0.5972	Ave		0.5745				6.3		20.0			
n-Butanol	0.0011 0.0022	0.0012	0.0018	0.0021	0.0020	Lin1	-0.019	0.0021				12.8			0.9970		0.9900
Ethyl acrylate	0.1408 0.1655	0.1361	0.1640	0.1551	0.1612	Ave		0.1538				8.1		20.0			
Methyl methacrylate	0.1001 0.0981	0.0960	0.0956	0.0962	0.0964	Ave		0.0971				1.8		20.0			
2-Nitropropane	0.0241 0.0213	0.0177	0.0173	0.0177	0.0202	Ave		0.0197				13.8		20.0			
n-Butyl acetate	0.2041 0.2537	0.2303	0.2253	0.2361	0.2392	Ave		0.2314				7.1		20.0			
1-Chlorohexane	0.4105 0.4711	0.4132	0.4259	0.4405	0.4652	Ave		0.4377				5.9		20.0			
Cyclohexanone	+++++ 0.0034	0.0033	0.0028	0.0032	0.0032	Ave		0.0032				7.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2700 0.3211	0.2502	0.3057	0.3057	0.3364	Ave		0.2982				10.8		20.0			
1,2,3-Trimethylbenzene	1.8506 2.6441	2.0229	2.4674	2.5828	2.6602	Ave		2.3713				14.7		20.0			
Benzyl chloride	+++++ 1.0064	0.5621	0.6642	0.8127	0.9426	Ave		0.7976				23.3	*	20.0			
1,3,5-Trichlorobenzene	0.7965 1.0155	0.8427	0.9496	1.0009	1.0090	Ave		0.9357				10.1		20.0			
2-Methylnaphthalene	0.6928 1.3694	0.7960	1.0557	1.2692	1.3391	Lin1	-0.934	1.3355				14.4			0.9970		0.9900
1-Chloro-1-fluoroethane TIC	+++++ 0.0074	+++++	0.0043	0.0087	0.0081	Ave		0.0072				27.2	*	20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.1825	0.1000	0.0169	0.0200	-15.6	30.0
Chloromethane	Ave	0.1903	0.1844	0.1000	0.0194	0.0200	-3.1	30.0
Vinyl chloride	Ave	0.2220	0.2246	0.1000	0.0202	0.0200	1.2	30.0
Butadiene	Ave	0.1867	0.1724		0.0185	0.0200	-7.6	30.0
Bromomethane	Ave	0.2391	0.2246	0.0500	0.0188	0.0200	-6.1	30.0
Chloroethane	Ave	0.1665	0.1615	0.0500	0.0194	0.0200	-3.0	30.0
Dichlorofluoromethane	Ave	0.3865	0.4011		0.0208	0.0200	3.8	30.0
Trichlorofluoromethane	Ave	0.3897	0.3981	0.1000	0.0204	0.0200	2.2	30.0
Ethyl ether	Ave	0.1382	0.1458		0.0211	0.0200	5.5	30.0
Acrolein	Ave	0.0160	0.0101		0.0634	0.100	-36.6	50.0
1,1-Dichloroethene	Ave	0.2722	0.2970	0.1000	0.0218	0.0200	9.1	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.1896	0.0500	0.0199	0.0200	-0.4	30.0
Acetone	Lin1		0.0304	0.0100	0.0381	0.0400	-4.8	50.0
Iodomethane	Ave	0.3335	0.3759		0.0225	0.0200	12.7	30.0
Carbon disulfide	Ave	0.5789	0.6356	0.1000	0.0220	0.0200	9.8	30.0
3-Chloro-1-propene	Ave	0.2108	0.2169		0.0206	0.0200	2.9	30.0
Methyl acetate	Ave	0.0795	0.0728*	0.1000	0.0366	0.0400	-8.4	30.0
Methylene Chloride	Lin1		0.2159	0.1000	0.0215	0.0200	7.5	50.0
tert-Butyl alcohol	Ave	0.0139	0.0123		0.176	0.200	-11.8	50.0
Acrylonitrile	Ave	0.0392	0.0395		0.201	0.200	0.7	30.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2696	0.1000	0.0220	0.0200	9.9	30.0
Methyl tert-butyl ether	Ave	0.5474	0.5572	0.1000	0.0204	0.0200	1.8	30.0
Hexane	Ave	0.1828	0.1797		0.0197	0.0200	-1.7	30.0
1,1-Dichloroethane	Ave	0.2733	0.3017	0.2000	0.0221	0.0200	10.4	30.0
Vinyl acetate	Ave	0.1713	0.2072		0.0242	0.0200	20.9	50.0
2,2-Dichloropropane	Ave	0.3118	0.3218		0.0206	0.0200	3.2	30.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2549	0.1000	0.0223	0.0200	11.7	30.0
2-Butanone (MEK)	Ave	0.0166	0.0177	0.0100	0.0426	0.0400	6.4	30.0
Bromochloromethane	Ave	0.1221	0.1248		0.0204	0.0200	2.2	30.0
Tetrahydrofuran	Ave	0.0318	0.0283		0.0357	0.0400	-10.8	30.0
Chloroform	Ave	0.3541	0.3881	0.2000	0.0219	0.0200	9.6	30.0
1,1,1-Trichloroethane	Ave	0.3606	0.3898	0.1000	0.0216	0.0200	8.1	30.0
Cyclohexane	Ave	0.3091	0.3100	0.1000	0.0201	0.0200	0.3	30.0
1,1-Dichloropropene	Ave	0.2894	0.3051		0.0211	0.0200	5.4	30.0
Carbon tetrachloride	Ave	0.2977	0.3337	0.1000	0.0224	0.0200	12.1	30.0
Isobutyl alcohol	Ave	0.0028	0.0023		0.412	0.500	-17.7	30.0
Benzene	Ave	0.8383	0.8536	0.5000	0.0204	0.0200	1.8	30.0
1,2-Dichloroethane	Ave	0.2535	0.2576	0.1000	0.0203	0.0200	1.6	30.0
n-Heptane	Lin1		0.1449		0.0184	0.0200	-8.2	30.0
Trichloroethene	Ave	0.2616	0.2786	0.1500	0.0213	0.0200	6.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.3532	0.1000	0.0193	0.0200	-3.5	30.0
1,2-Dichloropropane	Ave	0.1668	0.1792	0.1000	0.0215	0.0200	7.5	30.0
Dibromomethane	Ave	0.1359	0.1350		0.0199	0.0200	-0.7	30.0
1,4-Dioxane	Ave	0.0009	0.0010		0.469	0.400	17.4	50.0
Bromodichloromethane	Ave	0.2748	0.2951	0.1500	0.0215	0.0200	7.4	30.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0973		0.0211	0.0200	5.4	30.0
cis-1,3-Dichloropropene	Ave	0.3013	0.3301	0.1500	0.0219	0.0200	9.6	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1119	0.0500	0.0392	0.0400	-2.0	30.0
Toluene	Ave	1.280	1.339	0.4000	0.0209	0.0200	4.6	30.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3504	0.1000	0.0205	0.0200	2.6	30.0
Ethyl methacrylate	Ave	0.2684	0.2767		0.0206	0.0200	3.1	30.0
1,1,2-Trichloroethane	Ave	0.2306	0.2325	0.1000	0.0202	0.0200	0.8	30.0
Tetrachloroethene	Ave	0.3532	0.3576	0.1500	0.0203	0.0200	1.3	30.0
1,3-Dichloropropane	Ave	0.3697	0.3589		0.0194	0.0200	-2.9	30.0
2-Hexanone	Ave	0.1007	0.0975	0.0500	0.0387	0.0400	-3.2	30.0
Chlorodibromomethane	Ave	0.2528	0.2657		0.0210	0.0200	5.1	30.0
1,2-Dibromoethane	Ave	0.2276	0.2301		0.0202	0.0200	1.1	30.0
Chlorobenzene	Ave	0.8806	0.9033	0.3000	0.0205	0.0200	2.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.3063		0.0216	0.0200	7.9	30.0
Ethylbenzene	Ave	0.5068	0.5153		0.0203	0.0200	1.7	30.0
m-Xylene & p-Xylene	Ave	0.6118	0.6451		0.0211	0.0200	5.4	30.0
o-Xylene	Ave	0.5908	0.6139		0.0208	0.0200	3.9	30.0
Styrene	Ave	0.9564	0.9916	0.3000	0.0207	0.0200	3.7	30.0
Bromoform	Ave	0.1378	0.1469	0.1000	0.0213	0.0200	6.6	30.0
Isopropylbenzene	Ave	1.553	1.657	0.1000	0.0213	0.0200	6.7	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4932	0.3000	0.0198	0.0200	-1.2	30.0
Bromobenzene	Ave	0.6856	0.6787		0.0198	0.0200	-1.0	30.0
1,2,3-Trichloropropane	Ave	0.1954	0.1847		0.0189	0.0200	-5.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1156		0.0211	0.0200	5.7	30.0
N-Propylbenzene	Ave	0.8159	0.8582		0.0210	0.0200	5.2	30.0
2-Chlorotoluene	Ave	0.6649	0.7139		0.0215	0.0200	7.4	30.0
1,3,5-Trimethylbenzene	Ave	2.332	2.419		0.0207	0.0200	3.7	30.0
4-Chlorotoluene	Ave	0.7186	0.7375		0.0205	0.0200	2.6	30.0
tert-Butylbenzene	Ave	2.135	2.255		0.0211	0.0200	5.6	30.0
1,2,4-Trimethylbenzene	Ave	2.383	2.489		0.0209	0.0200	4.4	30.0
sec-Butylbenzene	Ave	3.082	3.237		0.0210	0.0200	5.0	30.0
1,3-Dichlorobenzene	Ave	1.405	1.408	0.6000	0.0200	0.0200	0.2	30.0
4-Isopropyltoluene	Ave	2.642	2.890		0.0219	0.0200	9.4	30.0
1,4-Dichlorobenzene	Ave	1.432	1.444	0.5000	0.0202	0.0200	0.8	30.0
n-Butylbenzene	Ave	2.200	2.350		0.0214	0.0200	6.8	30.0
1,2-Dichlorobenzene	Ave	1.310	1.313	0.4000	0.0200	0.0200	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-328331/17 Calibration Date: 05/24/2018 14:59

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263880.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1045	0.0500	0.0204	0.0200	2.2	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8250	0.2000	0.0206	0.0200	3.2	50.0
Hexachlorobutadiene	Ave	0.3092	0.3464		0.0224	0.0200	12.0	30.0
Naphthalene	Ave	1.789	1.876		0.0210	0.0200	4.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7670		0.0207	0.0200	3.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2573		0.0224	0.0200	12.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2471		0.0212	0.0200	5.9	30.0
Toluene-d8 (Surr)	Ave	1.185	1.315		0.0222	0.0200	11.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4784		0.0210	0.0200	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2298	0.2443		0.0213	0.0200	6.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2489		0.0213	0.0200	6.6	30.0
Toluene-d8 (Surr)	Ave	1.185	1.303		0.0220	0.0200	9.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4324		0.0190	0.0200	-5.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0091		0.206	0.200	2.8	30.0
Diisopropyl ether	Ave	0.1725	0.1813		0.0210	0.0200	5.1	30.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2607		0.0219	0.0200	9.4	30.0
Ethyl tert-butyl ether	Ave	0.4651	0.5016		0.0216	0.0200	7.8	30.0
Ethyl acetate	Ave	0.0960	0.0951		0.0396	0.0400	-0.9	50.0
Propionitrile	Ave	0.0124	0.0130		0.209	0.200	4.6	30.0
Methacrylonitrile	Ave	0.0563	0.0586		0.208	0.200	4.2	30.0
Tert-amyl methyl ether	Ave	0.5745	0.6127		0.0213	0.0200	6.6	30.0
n-Butanol	Lin1		0.0022		0.518	0.500	3.6	30.0
Ethyl acrylate	Ave	0.1538	0.1592		0.0207	0.0200	3.5	30.0
Methyl methacrylate	Ave	0.0971	0.0975		0.0402	0.0400	0.4	30.0
2-Nitropropane	Ave	0.0197	0.0188		0.0382	0.0400	-4.5	30.0
n-Butyl acetate	Ave	0.2314	0.2409		0.0208	0.0200	4.1	30.0
1-Chlorohexane	Ave	0.4377	0.4642		0.0212	0.0200	6.0	30.0
Cyclohexanone	Ave	0.0032	0.0033		0.210	0.200	4.9	30.0
Pentachloroethane	Ave	0.2982	0.3135		0.0421	0.0400	5.1	30.0
1,2,3-Trimethylbenzene	Ave	2.371	2.696		0.0227	0.0200	13.7	30.0
Benzyl chloride	Ave	0.7976	0.8396		0.0211	0.0200	5.3	30.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.031		0.0220	0.0200	10.2	30.0
2-Methylnaphthalene	Lin1		1.249		0.0381	0.0400	-4.7	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3853.D BFB Injection Date: 06/03/2018

Instrument ID: A3UX12 BFB Injection Time: 10:18

Analysis Batch No.: 329778

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	81.3	
175	5.0 - 9.0 % of mass 174	6.4	(7.9) 1
176	95.0 - 101.0 % of mass 174	78.5	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	LCS 240-329778/4	U1264108.D	06/03/2018	11:04
	CCVIS 240-329778/5	U1264109.D	06/03/2018	11:27
	CCV 240-329778/6	U1264110.D	06/03/2018	11:50
	MB 240-329778/9	U1264113.D	06/03/2018	13:00
TB-052318	240-96144-1	U1264119.D	06/03/2018	15:19
MSA-MW-24S-052318	240-96144-2	U1264120.D	06/03/2018	15:42
MSA-MW-24I-052318	240-96144-3	U1264121.D	06/03/2018	16:05
MSA-MW-30I-052318	240-96144-4	U1264122.D	06/03/2018	16:28
MSA-MW-45S-052318	240-96144-5	U1264123.D	06/03/2018	16:51
DMW-10S-052418	240-96144-6	U1264124.D	06/03/2018	17:14
DMW-10I-052418	240-96144-7	U1264125.D	06/03/2018	17:38
MSA-MW-21I-052418	240-96144-8	U1264126.D	06/03/2018	18:01
MSA-MW-21D-052418	240-96144-9	U1264127.D	06/03/2018	18:25
MSA-MW-45S-052318 MS	240-96144-5 MS	U1264128.D	06/03/2018	18:48
MSA-MW-45S-052318 MSD	240-96144-5 MSD	U1264129.D	06/03/2018	19:11

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-329778/5 Calibration Date: 06/03/2018 11:27

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.4054	0.1000	0.0375	0.0200	87.6*	20.0
Chloromethane	Ave	0.1903	0.2223	0.1000	0.0234	0.0200	16.8	20.0
Vinyl chloride	Ave	0.2220	0.2679	0.1000	0.0241	0.0200	20.7*	20.0
Butadiene	Ave	0.1867	0.2467		0.0264	0.0200	32.2*	20.0
Bromomethane	Ave	0.2391	0.2606	0.0500	0.0218	0.0200	9.0	20.0
Chloroethane	Ave	0.1665	0.1811	0.0500	0.0218	0.0200	8.8	20.0
Dichlorofluoromethane	Ave	0.3865	0.4099		0.0212	0.0200	6.0	20.0
Trichlorofluoromethane	Ave	0.3897	0.5309	0.1000	0.0272	0.0200	36.2*	20.0
Ethyl ether	Ave	0.1382	0.1376		0.0199	0.0200	-0.4	20.0
Acrolein	Ave	0.0160	0.0223		0.140	0.100	39.6	50.0
1,1-Dichloroethene	Ave	0.2722	0.2973	0.1000	0.0218	0.0200	9.2	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.2641	0.0500	0.0278	0.0200	38.8*	20.0
Acetone	Lin1		0.0339	0.0100	0.0429	0.0400	7.2	50.0
Iodomethane	Ave	0.3335	0.3817		0.0229	0.0200	14.4	20.0
Carbon disulfide	Ave	0.5789	0.6489	0.1000	0.0224	0.0200	12.1	20.0
3-Chloro-1-propene	Ave	0.2108	0.2063		0.0196	0.0200	-2.1	20.0
Methyl acetate	Ave	0.0795	0.0817*	0.1000	0.0411	0.0400	2.7	20.0
Methylene Chloride	Lin1		0.2106	0.1000	0.0210	0.0200	4.8	50.0
tert-Butyl alcohol	Ave	0.0139	0.0163		0.233	0.200	16.7	50.0
Acrylonitrile	Ave	0.0392	0.0403		0.205	0.200	2.6	20.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2595	0.1000	0.0212	0.0200	5.8	20.0
Methyl tert-butyl ether	Ave	0.5474	0.5673	0.1000	0.0207	0.0200	3.6	20.0
Hexane	Ave	0.1828	0.2910		0.0318	0.0200	59.2*	20.0
1,1-Dichloroethane	Ave	0.2733	0.2998	0.2000	0.0219	0.0200	9.7	20.0
Vinyl acetate	Ave	0.1713	0.1693		0.0198	0.0200	-1.2	50.0
2,2-Dichloropropane	Ave	0.3118	0.3458		0.0222	0.0200	10.9	20.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2540	0.1000	0.0223	0.0200	11.3	20.0
2-Butanone (MEK)	Ave	0.0166	0.0182	0.0100	0.0439	0.0400	9.7	20.0
Bromochloromethane	Ave	0.1221	0.1175		0.0193	0.0200	-3.7	20.0
Tetrahydrofuran	Ave	0.0318	0.0276		0.0347	0.0400	-13.2	20.0
Chloroform	Ave	0.3541	0.3840	0.2000	0.0217	0.0200	8.5	20.0
1,1,1-Trichloroethane	Ave	0.3606	0.3906	0.1000	0.0217	0.0200	8.3	20.0
Cyclohexane	Ave	0.3091	0.3932	0.1000	0.0254	0.0200	27.2*	20.0
1,1-Dichloropropene	Ave	0.2894	0.3048		0.0211	0.0200	5.3	20.0
Carbon tetrachloride	Ave	0.2977	0.3483	0.1000	0.0234	0.0200	17.0	20.0
Isobutyl alcohol	Ave	0.0028	0.0032		0.565	0.500	13.0	20.0
Benzene	Ave	0.8383	0.8594	0.5000	0.0205	0.0200	2.5	20.0
1,2-Dichloroethane	Ave	0.2535	0.2447	0.1000	0.0193	0.0200	-3.5	20.0
n-Heptane	Lin1		0.1760		0.0233	0.0200	16.4	20.0
Trichloroethene	Ave	0.2616	0.2723	0.1500	0.0208	0.0200	4.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-329778/5 Calibration Date: 06/03/2018 11:27

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3660	0.4531	0.1000	0.0248	0.0200	23.8*	20.0
1,2-Dichloropropane	Ave	0.1668	0.1678	0.1000	0.0201	0.0200	0.6	20.0
Dibromomethane	Ave	0.1359	0.1307		0.0192	0.0200	-3.8	20.0
1,4-Dioxane	Ave	0.0009	0.0015		0.688	0.400	71.9*	50.0
Bromodichloromethane	Ave	0.2748	0.2875	0.1500	0.0209	0.0200	4.6	20.0
2-Chloroethyl vinyl ether	Ave	0.0922	0.0896		0.0389	0.0400	-2.8	20.0
cis-1,3-Dichloropropene	Ave	0.3013	0.3043	0.1500	0.0202	0.0200	1.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1141	0.1106	0.0500	0.0387	0.0400	-3.1	20.0
Toluene	Ave	1.280	1.342	0.4000	0.0210	0.0200	4.8	20.0
trans-1,3-Dichloropropene	Ave	0.3414	0.3492	0.1000	0.0205	0.0200	2.3	20.0
Ethyl methacrylate	Ave	0.2684	0.2747		0.0205	0.0200	2.3	20.0
1,1,2-Trichloroethane	Ave	0.2306	0.2304	0.1000	0.0200	0.0200	-0.0	20.0
Tetrachloroethene	Ave	0.3532	0.3616	0.1500	0.0205	0.0200	2.4	20.0
1,3-Dichloropropane	Ave	0.3697	0.3654		0.0198	0.0200	-1.2	20.0
2-Hexanone	Ave	0.1007	0.0978	0.0500	0.0389	0.0400	-2.8	20.0
Chlorodibromomethane	Ave	0.2528	0.2729		0.0216	0.0200	8.0	20.0
1,2-Dibromoethane	Ave	0.2276	0.2343		0.0206	0.0200	3.0	20.0
Chlorobenzene	Ave	0.8806	0.9168	0.3000	0.0208	0.0200	4.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.2840	0.3151		0.0222	0.0200	11.0	20.0
Ethylbenzene	Ave	0.5068	0.5229		0.0206	0.0200	3.2	20.0
m-Xylene & p-Xylene	Ave	0.6118	0.6476		0.0212	0.0200	5.9	20.0
o-Xylene	Ave	0.5908	0.6261		0.0212	0.0200	6.0	20.0
Styrene	Ave	0.9564	1.046	0.3000	0.0219	0.0200	9.4	20.0
Bromoform	Ave	0.1378	0.1582	0.1000	0.0230	0.0200	14.8	20.0
Isopropylbenzene	Ave	1.553	1.660	0.1000	0.0214	0.0200	6.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4993	0.4997	0.3000	0.0200	0.0200	0.0	20.0
Bromobenzene	Ave	0.6856	0.7246		0.0211	0.0200	5.7	20.0
1,2,3-Trichloropropane	Ave	0.1954	0.1862		0.0191	0.0200	-4.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1094	0.1073		0.0196	0.0200	-1.9	20.0
N-Propylbenzene	Ave	0.8159	0.8902		0.0218	0.0200	9.1	20.0
2-Chlorotoluene	Ave	0.6649	0.7406		0.0223	0.0200	11.4	20.0
1,3,5-Trimethylbenzene	Ave	2.332	2.502		0.0215	0.0200	7.3	20.0
4-Chlorotoluene	Ave	0.7186	0.7818		0.0218	0.0200	8.8	20.0
tert-Butylbenzene	Ave	2.135	2.320		0.0217	0.0200	8.7	20.0
1,2,4-Trimethylbenzene	Ave	2.383	2.574		0.0216	0.0200	8.0	20.0
sec-Butylbenzene	Ave	3.082	3.329		0.0216	0.0200	8.0	20.0
1,3-Dichlorobenzene	Ave	1.405	1.474	0.6000	0.0210	0.0200	4.9	20.0
4-Isopropyltoluene	Ave	2.642	2.947		0.0223	0.0200	11.6	20.0
1,4-Dichlorobenzene	Ave	1.432	1.510	0.5000	0.0211	0.0200	5.5	20.0
n-Butylbenzene	Ave	2.200	2.353		0.0214	0.0200	6.9	20.0
1,2-Dichlorobenzene	Ave	1.310	1.383	0.4000	0.0211	0.0200	5.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-329778/5 Calibration Date: 06/03/2018 11:27

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264109.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1022	0.1108	0.0500	0.0217	0.0200	8.4	50.0
1,2,4-Trichlorobenzene	Ave	0.7992	0.8753	0.2000	0.0219	0.0200	9.5	50.0
Hexachlorobutadiene	Ave	0.3092	0.3451		0.0223	0.0200	11.6	20.0
Naphthalene	Ave	1.789	1.930		0.0216	0.0200	7.9	50.0
1,2,3-Trichlorobenzene	Ave	0.7406	0.7964		0.0215	0.0200	7.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2298	0.2538		0.0221	0.0200	10.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2374		0.0203	0.0200	1.7	20.0
Toluene-d8 (Surr)	Ave	1.185	1.337		0.0226	0.0200	12.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4948		0.0217	0.0200	8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329778/6 Calibration Date: 06/03/2018 11:50

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1264110.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0107		0.242	0.200	21.0*	20.0
Diisopropyl ether	Ave	0.1725	0.1862		0.0216	0.0200	7.9	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2603		0.0218	0.0200	9.2	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.5015		0.0216	0.0200	7.8	20.0
Ethyl acetate	Ave	0.0960	0.0976		0.0407	0.0400	1.7	50.0
Propionitrile	Ave	0.0124	0.0142		0.228	0.200	14.1	20.0
Methacrylonitrile	Ave	0.0563	0.0573		0.204	0.200	1.8	20.0
Tert-amyl methyl ether	Ave	0.5745	0.6036		0.0210	0.0200	5.1	20.0
n-Butanol	Lin1		0.0031		0.741	0.500	48.3*	20.0
Ethyl acrylate	Ave	0.1538	0.1605		0.0209	0.0200	4.4	20.0
Methyl methacrylate	Ave	0.0971	0.0928		0.0382	0.0400	-4.4	20.0
2-Nitropropane	Ave	0.0197	0.0189		0.0384	0.0400	-4.1	20.0
n-Butyl acetate	Ave	0.2314	0.2221		0.0192	0.0200	-4.1	20.0
1-Chlorohexane	Ave	0.4377	0.4794		0.0219	0.0200	9.5	20.0
Cyclohexanone	Ave	0.0032	0.0042		0.265	0.200	32.5*	20.0
Pentachloroethane	Ave	0.2982	0.3864		0.0518	0.0400	29.6*	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.691		0.0227	0.0200	13.5	20.0
Benzyl chloride	Ave	0.7976	0.9422		0.0236	0.0200	18.1	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.035		0.0221	0.0200	10.7	20.0
2-Methylnaphthalene	Lin1		1.240		0.0378	0.0400	-5.4	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3854.D BFB Injection Date: 06/04/2018

Instrument ID: A3UX12 BFB Injection Time: 16:25

Analysis Batch No.: 329972

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.6	
75	30.0 - 60.0 % of mass 95	50.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.5	
175	5.0 - 9.0 % of mass 174	6.4	(8.1) 1
176	95.0 - 101.0 % of mass 174	76.7	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-329972/3	U1264139.D	06/04/2018	16:51
	CCVIS 240-329972/4	U1264140.D	06/04/2018	17:14
	LCS 240-329972/5	U1264141.D	06/04/2018	17:37
	MB 240-329972/8	U1264144.D	06/04/2018	18:48
MSA-MW-45S-052318	240-96144-5	U1264148.D	06/04/2018	20:21
DMW-10I-052418	240-96144-7	U1264149.D	06/04/2018	20:45
MSA-MW-21I-052418	240-96144-8	U1264150.D	06/04/2018	21:08

VINYL CHLORIDE ONL

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-329972/4 Calibration Date: 06/04/2018 17:14

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1264140.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2161	0.3786	0.1000	0.0350	0.0200	75.2*	20.0
Chloromethane	Ave	0.1903	0.2152	0.1000	0.0226	0.0200	13.1	20.0
Vinyl chloride	Ave	0.2220	0.2494	0.1000	0.0225	0.0200	12.3	20.0
Butadiene	Ave	0.1867	0.2321		0.0249	0.0200	24.3*	20.0
Bromomethane	Ave	0.2391	0.2428	0.0500	0.0203	0.0200	1.5	20.0
Chloroethane	Ave	0.1665	0.1716	0.0500	0.0206	0.0200	3.1	20.0
Dichlorofluoromethane	Ave	0.3865	0.3954		0.0205	0.0200	2.3	20.0
Trichlorofluoromethane	Ave	0.3897	0.5116	0.1000	0.0263	0.0200	31.3*	20.0
Ethyl ether	Ave	0.1382	0.1420		0.0205	0.0200	2.7	20.0
Acrolein	Ave	0.0160	0.0231		0.145	0.100	44.9	50.0
1,1-Dichloroethene	Ave	0.2722	0.3049	0.1000	0.0224	0.0200	12.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1903	0.2754	0.0500	0.0290	0.0200	44.8*	20.0
Acetone	Lin1		0.0320	0.0100	0.0403	0.0400	0.8	50.0
Iodomethane	Ave	0.3335	0.3983		0.0239	0.0200	19.4	20.0
Carbon disulfide	Ave	0.5789	0.6641	0.1000	0.0229	0.0200	14.7	20.0
3-Chloro-1-propene	Ave	0.2108	0.2161		0.0205	0.0200	2.5	20.0
Methyl acetate	Ave	0.0795	0.0809*	0.1000	0.0407	0.0400	1.7	20.0
Methylene Chloride	Lin1		0.2160	0.1000	0.0215	0.0200	7.6	50.0
tert-Butyl alcohol	Ave	0.0139	0.0152		0.217	0.200	8.7	50.0
Acrylonitrile	Ave	0.0392	0.0406		0.207	0.200	3.5	20.0
trans-1,2-Dichloroethene	Ave	0.2454	0.2682	0.1000	0.0219	0.0200	9.3	20.0
Methyl tert-butyl ether	Ave	0.5474	0.5780	0.1000	0.0211	0.0200	5.6	20.0
Hexane	Ave	0.1828	0.2742		0.0300	0.0200	50.0*	20.0
1,1-Dichloroethane	Ave	0.2733	0.3126	0.2000	0.0229	0.0200	14.4	20.0
Vinyl acetate	Ave	0.1713	0.1646		0.0192	0.0200	-3.9	50.0
2,2-Dichloropropane	Ave	0.3118	0.3400		0.0218	0.0200	9.0	20.0
cis-1,2-Dichloroethene	Ave	0.2283	0.2612	0.1000	0.0229	0.0200	14.4	20.0
2-Butanone (MEK)	Ave	0.0166	0.0180	0.0100	0.0433	0.0400	8.2	20.0
Bromochloromethane	Ave	0.1221	0.1174		0.0192	0.0200	-3.9	20.0
Tetrahydrofuran	Ave	0.0318	0.0272		0.0342	0.0400	-14.5	20.0
Chloroform	Ave	0.3541	0.3905	0.2000	0.0221	0.0200	10.3	20.0
1,1,1-Trichloroethane	Ave	0.3606	0.4017	0.1000	0.0223	0.0200	11.4	20.0
Cyclohexane	Ave	0.3091	0.4109	0.1000	0.0266	0.0200	32.9*	20.0
1,1-Dichloropropene	Ave	0.2894	0.3122		0.0216	0.0200	7.9	20.0
Carbon tetrachloride	Ave	0.2977	0.3622	0.1000	0.0243	0.0200	21.7*	20.0
Isobutyl alcohol	Ave	0.0028	0.0030		0.522	0.500	4.5	20.0
Benzene	Ave	0.8383	0.8860	0.5000	0.0211	0.0200	5.7	20.0
1,2-Dichloroethane	Ave	0.2535	0.2411	0.1000	0.0190	0.0200	-4.9	20.0
n-Heptane	Lin1		0.1779		0.0236	0.0200	17.9	20.0
Trichloroethene	Ave	0.2616	0.2851	0.1500	0.0218	0.0200	9.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3856.D BFB Injection Date: 06/05/2018

Instrument ID: A3UX12 BFB Injection Time: 17:08

Analysis Batch No.: 330161

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	48.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	82.4	
175	5.0 - 9.0 % of mass 174	7.1	(8.6) 1
176	95.0 - 101.0 % of mass 174	78.3	(95.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 240-330161/4	U1264191.D	06/05/2018	17:54
	ICV 240-330161/5	U1264192.D	06/05/2018	18:17
	STD8260 240-330161/9	U1264193.D	06/05/2018	18:47
	STD8260 240-330161/10	U1264194.D	06/05/2018	19:11
	STD8260 240-330161/11	U1264195.D	06/05/2018	19:34
	STD8260 240-330161/13	U1264196.D	06/05/2018	19:57
	STD8260 240-330161/14	U1264197.D	06/05/2018	20:21
	STD8260 240-330161/15	U1264198b.D	06/05/2018	20:44

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-330161/15	U1264198b.D
Level 2	STD8260 240-330161/14	U1264197.D
Level 3	STD8260 240-330161/13	U1264196.D
Level 4	ICIS 240-330161/4	U1264191.D
Level 5	STD8260 240-330161/11	U1264195.D
Level 6	STD8260 240-330161/10	U1264194.D
Level 7	STD8260 240-330161/9	U1264193.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2691 0.3808	0.3331 0.3417	0.3641	0.3729	0.4050	Ave		0.3524			0.1000	12.4		20.0			
Chloromethane	0.2489 0.2190	0.2299 0.2092	0.2294	0.2359	0.2310	Ave		0.2290			0.1000	5.5		20.0			
Vinyl chloride	0.2688 0.2625	0.2671 0.2460	0.2561	0.2735	0.2753	Ave		0.2642			0.1000	3.9		20.0			
Butadiene	0.2589 0.2446	0.2145 0.2214	0.2359	0.2386	0.2485	Ave		0.2375				6.5		20.0			
Bromomethane	0.2480 0.2687	0.2519 0.3038	0.2382	0.2738	0.2654	Ave		0.2643			0.0500	8.1		20.0			
Chloroethane	0.1704 0.1849	0.1748 0.1881	0.1721	0.1926	0.1898	Ave		0.1818			0.0500	5.0		20.0			
Dichlorofluoromethane	0.4475 0.4046	0.4151 0.3981	0.3864	0.4353	0.4166	Ave		0.4148				5.1		20.0			
Trichlorofluoromethane	0.4681 0.5190	0.4472 0.4874	0.4880	0.5336	0.5425	Ave		0.4980			0.1000	7.0		20.0			
Ethyl ether	0.1395 0.1420	0.1461 0.1356	0.1364	0.1528	0.1462	Ave		0.1427				4.3		20.0			
Acrolein	0.0260 0.0222	0.0215 0.0202	0.0214	0.0243	0.0221	Ave		0.0225				8.7		20.0			
1,1-Dichloroethene	0.3283 0.2953	0.2919 0.3003	0.2818	0.3296	0.3193	Ave		0.3066			0.1000	6.2		20.0			
1,1,2-Trichlorotrifluoroethane	0.2389 0.2698	0.2729 0.2795	0.2632	0.2948	0.2915	Ave		0.2730			0.0500	6.9		20.0			
Acetone	+++++ 0.0300	0.0719 0.0281	0.0309	0.0332	0.0305	Lin1	0.0881	0.0284			0.0100	6.2			0.9980		0.9900
Iodomethane	0.4259 0.4330	0.4270 0.4152	0.4099	0.4414	0.4475	Ave		0.4286				3.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9404 0.6680	0.8832 0.6672	0.6687	0.7252	0.7131	Ave		0.7522			0.1000	15.0		20.0			
3-Chloro-1-propene	0.2207 0.2157	0.2297 0.2123	0.2113	0.2355	0.2224	Ave		0.2211				4.1		20.0			
Methyl acetate	0.0905 0.0773	0.0890 0.0757	0.0790	0.0859	0.0797	Ave		0.0825		*	0.1000	7.2		20.0			
Methylene Chloride	+++++ 0.2105	0.2556 0.1996	0.2214	0.2287	0.2196	Ave		0.2226			0.1000	8.6		20.0			
tert-Butyl alcohol	0.0148 0.0164	0.0158 0.0153	0.0156	0.0170	0.0165	Ave		0.0159				4.9		20.0			
Acrylonitrile	0.0458 0.0410	0.0400 0.0387	0.0384	0.0430	0.0412	Ave		0.0412				6.3		20.0			
trans-1,2-Dichloroethene	0.3145 0.2654	0.3053 0.2657	0.2621	0.2922	0.2790	Ave		0.2835			0.1000	7.4		20.0			
Methyl tert-butyl ether	0.5261 0.5821	0.5445 0.5453	0.5696	0.6281	0.5949	Ave		0.5701			0.1000	6.1		20.0			
Hexane	0.2429 0.2646	0.2609 0.2805	0.2585	0.3072	0.2863	Ave		0.2716				7.8		20.0			
1,1-Dichloroethane	0.2792 0.3103	0.2999 0.3099	0.2960	0.3368	0.3216	Ave		0.3077			0.2000	6.0		20.0			
Vinyl acetate	0.1428 0.1554	0.1722 0.1489	0.1517	0.1720	0.1608	Ave		0.1577				7.2		20.0			
2,2-Dichloropropane	0.3256 0.3421	0.3432 0.3441	0.3249	0.3751	0.3585	Ave		0.3448				5.1		20.0			
cis-1,2-Dichloroethene	0.3056 0.2718	0.2914 0.2649	0.2625	0.2819	0.2799	Ave		0.2797			0.1000	5.4		20.0			
2-Butanone (MEK)	0.0140 0.0175	0.0182 0.0172	0.0174	0.0183	0.0185	Ave		0.0173			0.0100	8.8		20.0			
Bromochloromethane	0.1595 0.1189	0.1726 0.1129	0.1188	0.1296	0.1197	Ave		0.1331				17.5		20.0			
Tetrahydrofuran	0.0265 0.0271	0.0309 0.0265	0.0247	0.0294	0.0285	Ave		0.0277				7.5		20.0			
Chloroform	0.3969 0.3856	0.3888 0.3802	0.3841	0.4225	0.3981	Ave		0.3937			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3666 0.3999	0.3622 0.4078	0.3871	0.4397	0.4225	Ave		0.3980			0.1000	7.1		20.0			
Cyclohexane	0.3470 0.3993	0.3843 0.4034	0.3966	0.4431	0.4303	Ave		0.4006			0.1000	7.8		20.0			
1,1-Dichloropropene	0.3019 0.3048	0.3118 0.3108	0.2941	0.3426	0.3275	Ave		0.3134				5.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2867 0.3576	0.3105 0.3668	0.3326	0.3847	0.3866	Ave		0.3465			0.1000	11.0		20.0			
Isobutyl alcohol	+++++ 0.0033	0.0032 0.0032	0.0028	0.0031	0.0034	Ave		0.0032				6.1		20.0			
Benzene	0.8402 0.8706	0.9024 0.8616	0.8552	0.9673	0.8968	Ave		0.8849			0.5000	4.8		20.0			
1,2-Dichloroethane	0.2707 0.2279	0.2300 0.2218	0.2331	0.2619	0.2357	Ave		0.2402			0.1000	7.7		20.0			
n-Heptane	+++++ 0.1603	0.6710 0.1636	0.1872	0.1926	0.1727	Lin1	0.5106	0.1536				7.8			0.9970		0.9900
Trichloroethene	0.2816 0.2939	0.2917 0.2941	0.2829	0.3187	0.3091	Ave		0.2960			0.1500	4.6		20.0			
Methylcyclohexane	0.4186 0.4540	0.4143 0.4656	0.4319	0.5073	0.4923	Ave		0.4548			0.1000	7.9		20.0			
1,2-Dichloropropane	0.1752 0.1670	0.1674 0.1658	0.1667	0.1881	0.1717	Ave		0.1717			0.1000	4.6		20.0			
Dibromomethane	0.1364 0.1459	0.1591 0.1386	0.1358	0.1512	0.1489	Ave		0.1451				6.0		20.0			
1,4-Dioxane	+++++ 0.0015	0.0015 0.0014	0.0015	0.0016	0.0015	Ave		0.0015				2.9		20.0			
Bromodichloromethane	0.2717 0.2937	0.2678 0.2885	0.2723	0.3233	0.3002	Ave		0.2882			0.1500	6.9		20.0			
2-Chloroethyl vinyl ether	0.0698 0.0851	0.0822 0.0837	0.0737	0.0806	0.0820	Ave		0.0796				7.1		20.0			
cis-1,3-Dichloropropene	0.3064 0.3111	0.3136 0.3049	0.2951	0.3305	0.3195	Ave		0.3116			0.1500	3.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.1069 0.1041	0.0940 0.0996	0.0962	0.1101	0.1042	Ave		0.1021			0.0500	5.7		20.0			
Toluene	1.2483 1.3382	1.2626 1.3008	1.2673	1.4337	1.3695	Ave		1.3172			0.4000	5.1		20.0			
trans-1,3-Dichloropropene	0.3434 0.3527	0.3541 0.3324	0.3214	0.3595	0.3468	Ave		0.3443			0.1000	3.9		20.0			
Ethyl methacrylate	0.2226 0.2828	0.2407 0.2665	0.2462	0.2851	0.2789	Ave		0.2604				9.3		20.0			
1,1,2-Trichloroethane	0.2215 0.2298	0.2423 0.2124	0.2177	0.2442	0.2325	Ave		0.2286			0.1000	5.3		20.0			
Tetrachloroethene	0.3835 0.4036	0.3906 0.3911	0.3736	0.4049	0.4078	Ave		0.3936			0.1500	3.2		20.0			
1,3-Dichloropropane	0.3550 0.3642	0.3730 0.3393	0.3481	0.3915	0.3614	Ave		0.3618				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.0833 0.0923	0.0710 0.0868	0.0797	0.0964	0.0908	Ave		0.0858			0.0500	10.0		20.0			
Chlorodibromomethane	0.2291 0.2937	0.2599 0.2767	0.2589	0.2892	0.2913	Ave		0.2713				8.7		20.0			
1,2-Dibromoethane	0.2112 0.2386	0.2194 0.2221	0.2217	0.2482	0.2395	Ave		0.2287				5.9		20.0			
Chlorobenzene	0.9316 0.9528	0.9931 0.9041	0.9171	1.0145	0.9561	Ave		0.9528			0.3000	4.2		20.0			
1,1,1,2-Tetrachloroethane	0.2742 0.3418	0.2846 0.3170	0.3033	0.3344	0.3392	Ave		0.3135				8.6		20.0			
Ethylbenzene	0.4461 0.5415	0.4944 0.5349	0.4972	0.5671	0.5515	Ave		0.5190				8.1		20.0			
m-Xylene & p-Xylene	0.6250 0.6704	0.5921 0.6574	0.6228	0.6995	0.6711	Ave		0.6483				5.7		20.0			
o-Xylene	0.5164 0.6405	0.5658 0.6283	0.5918	0.6784	0.6489	Ave		0.6100				9.1		20.0			
Styrene	0.8959 1.0808	0.9567 1.0388	0.9686	1.1116	1.0714	Ave		1.0177			0.3000	7.7		20.0			
Bromoform	+++++ 0.1717	0.1013 0.1660	0.1374	0.1610	0.1671	Ave		0.1508			0.1000	18.0		20.0			
Isopropylbenzene	1.4026 1.6689	1.5331 1.6441	1.5405	1.7916	1.7351	Ave		1.6166			0.1000	8.2		20.0			
1,1,2,2-Tetrachloroethane	0.4510 0.4679	0.4921 0.4182	0.4510	0.5033	0.4643	Ave		0.4640			0.3000	6.1		20.0			
Bromobenzene	0.8220 0.7790	0.6936 0.6976	0.7398	0.7891	0.7470	Ave		0.7526				6.3		20.0			
1,2,3-Trichloropropane	0.1365 0.1898	0.2071 0.1694	0.1765	0.2029	0.1812	Ave		0.1805				13.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1003	0.1018 0.0933	0.0942	0.0983	0.0965	Ave		0.0974				3.5		20.0			
N-Propylbenzene	0.7559 0.9036	0.7907 0.8728	0.8849	0.9698	0.8801	Ave		0.8654				8.2		20.0			
2-Chlorotoluene	0.6553 0.7696	0.6965 0.7107	0.7266	0.7938	0.7424	Ave		0.7278				6.4		20.0			
1,3,5-Trimethylbenzene	2.1402 2.4540	2.2357 2.3540	2.3696	2.6240	2.4217	Ave		2.3713				6.6		20.0			
4-Chlorotoluene	0.7781 0.7988	0.8002 0.7501	0.7608	0.8452	0.7872	Ave		0.7886				3.9		20.0			
tert-Butylbenzene	2.1213 2.3169	2.1621 2.2105	2.1954	2.4970	2.2820	Ave		2.2550				5.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1871 2.5517	2.3678 2.3851	2.4395	2.7438	2.5078	Ave		2.4547				7.1		20.0			
sec-Butylbenzene	3.0210 3.2140	3.0889 3.1435	3.1030	3.5486	3.2712	Ave		3.1986				5.5		20.0			
1,3-Dichlorobenzene	1.7067 1.5433	1.6155 1.4288	1.4815	1.5994	1.5054	Ave		1.5544			0.6000	6.0		20.0			
4-Isopropyltoluene	2.3894 2.9292	2.6004 2.8395	2.7589	3.0936	2.8701	Ave		2.7830				8.3		20.0			
1,4-Dichlorobenzene	1.9285 1.5890	1.8360 1.4641	1.5219	1.6457	1.5539	Ave		1.6484			0.5000	10.4		20.0			
n-Butylbenzene	2.1166 2.2954	2.0793 2.2898	2.1936	2.4756	2.2820	Ave		2.2475				5.9		20.0			
1,2-Dichlorobenzene	1.5506 1.4417	1.5261 1.3178	1.3592	1.4777	1.3970	Ave		1.4386			0.4000	6.0		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1144	0.1000 0.1055	0.0985	0.1121	0.1063	Ave		0.1061			0.0500	5.9		20.0			
1,2,4-Trichlorobenzene	1.1208 0.9475	1.0543 0.8630	0.8883	0.9467	0.9152	Ave		0.9623			0.2000	9.6		20.0			
Hexachlorobutadiene	0.4063 0.3705	0.3997 0.3820	0.3594	0.3650	0.3710	Ave		0.3791				4.7		20.0			
Naphthalene	1.8629 1.9114	1.7828 1.7105	1.7171	1.9493	1.8552	Ave		1.8270				5.1		20.0			
1,2,3-Trichlorobenzene	0.9052 0.8326	0.9648 0.7540	0.7892	0.8390	0.7902	Ave		0.8393				8.7		20.0			
Dibromofluoromethane (Surr)	0.2469 0.2374	0.2402 0.2283	0.2325	0.2700	0.2488	Ave		0.2434				5.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2215 0.1999	0.2136 0.1900	0.1963	0.2384	0.2058	Ave		0.2094				7.9		20.0			
Toluene-d8 (Surr)	1.2105 1.1908	1.2625 1.1194	1.1322	1.3567	1.2038	Ave		1.2108				6.7		20.0			
4-Bromofluorobenzene (Surr)	0.5854 0.4297	0.4741 0.4086	0.4131	0.4567	0.4391	Ave		0.4581				13.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.3002	0.1000	0.0170	0.0200	-14.8	30.0
Chloromethane	Ave	0.2290	0.2159	0.1000	0.0189	0.0200	-5.7	30.0
Vinyl chloride	Ave	0.2642	0.2566	0.1000	0.0194	0.0200	-2.9	30.0
Butadiene	Ave	0.2375	0.2105		0.0177	0.0200	-11.4	30.0
Bromomethane	Ave	0.2643	0.2515	0.0500	0.0190	0.0200	-4.8	30.0
Chloroethane	Ave	0.1818	0.1854	0.0500	0.0204	0.0200	2.0	30.0
Dichlorofluoromethane	Ave	0.4148	0.4396		0.0212	0.0200	6.0	30.0
Trichlorofluoromethane	Ave	0.4980	0.5348	0.1000	0.0215	0.0200	7.4	30.0
Ethyl ether	Ave	0.1427	0.1591		0.0223	0.0200	11.5	30.0
Acrolein	Ave	0.0225	0.0123		0.0544	0.100	-45.6	50.0
1,1-Dichloroethene	Ave	0.3066	0.3256	0.1000	0.0212	0.0200	6.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2997	0.0500	0.0220	0.0200	9.8	30.0
Acetone	Lin1		0.0322	0.0100	0.0422	0.0400	5.4	50.0
Iodomethane	Ave	0.4286	0.4448		0.0208	0.0200	3.8	30.0
Carbon disulfide	Ave	0.7522	0.6971	0.1000	0.0185	0.0200	-7.3	30.0
3-Chloro-1-propene	Ave	0.2211	0.2258		0.0204	0.0200	2.1	30.0
Methyl acetate	Ave	0.0825	0.0797*	0.1000	0.0387	0.0400	-3.3	30.0
Methylene Chloride	Ave	0.2226	0.2325	0.1000	0.0209	0.0200	4.5	50.0
tert-Butyl alcohol	Ave	0.0159	0.0174		0.219	0.200	9.4	50.0
Acrylonitrile	Ave	0.0412	0.0428		0.208	0.200	3.9	30.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2932	0.1000	0.0207	0.0200	3.4	30.0
Methyl tert-butyl ether	Ave	0.5701	0.6185	0.1000	0.0217	0.0200	8.5	30.0
Hexane	Ave	0.2716	0.2799		0.0206	0.0200	3.1	30.0
1,1-Dichloroethane	Ave	0.3077	0.3332	0.2000	0.0217	0.0200	8.3	30.0
Vinyl acetate	Ave	0.1577	0.2089		0.0265	0.0200	32.5	50.0
2,2-Dichloropropane	Ave	0.3448	0.3643		0.0211	0.0200	5.7	30.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2822	0.1000	0.0202	0.0200	0.9	30.0
2-Butanone (MEK)	Ave	0.0173	0.0183	0.0100	0.0423	0.0400	5.8	30.0
Bromochloromethane	Ave	0.1331	0.1281		0.0192	0.0200	-3.8	30.0
Tetrahydrofuran	Ave	0.0277	0.0306		0.0442	0.0400	10.5	30.0
Chloroform	Ave	0.3937	0.4239	0.2000	0.0215	0.0200	7.6	30.0
1,1,1-Trichloroethane	Ave	0.3980	0.4226	0.1000	0.0212	0.0200	6.2	30.0
Cyclohexane	Ave	0.4006	0.4311	0.1000	0.0215	0.0200	7.6	30.0
1,1-Dichloropropene	Ave	0.3134	0.3283		0.0210	0.0200	4.8	30.0
Carbon tetrachloride	Ave	0.3465	0.3756	0.1000	0.0217	0.0200	8.4	30.0
Isobutyl alcohol	Ave	0.0032	0.0032		0.500	0.500	0.0	30.0
Benzene	Ave	0.8849	0.9319	0.5000	0.0211	0.0200	5.3	30.0
1,2-Dichloroethane	Ave	0.2402	0.2464	0.1000	0.0205	0.0200	2.6	30.0
n-Heptane	Lin1		0.1794		0.0200	0.0200	0.1	30.0
Trichloroethene	Ave	0.2960	0.3040	0.1500	0.0205	0.0200	2.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4757	0.1000	0.0209	0.0200	4.6	30.0
1,2-Dichloropropane	Ave	0.1717	0.1869	0.1000	0.0218	0.0200	8.8	30.0
Dibromomethane	Ave	0.1451	0.1458		0.0201	0.0200	0.5	30.0
1,4-Dioxane	Ave	0.0015	0.0015		0.392	0.400	-2.1	50.0
Bromodichloromethane	Ave	0.2882	0.3043	0.1500	0.0211	0.0200	5.6	30.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0794		0.0200	0.0200	-0.2	30.0
cis-1,3-Dichloropropene	Ave	0.3116	0.3287	0.1500	0.0211	0.0200	5.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.1104	0.0500	0.0432	0.0400	8.1	30.0
Toluene	Ave	1.317	1.395	0.4000	0.0212	0.0200	5.9	30.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3439	0.1000	0.0200	0.0200	-0.1	30.0
Ethyl methacrylate	Ave	0.2604	0.2724		0.0209	0.0200	4.6	30.0
1,1,2-Trichloroethane	Ave	0.2286	0.2487	0.1000	0.0218	0.0200	8.8	30.0
Tetrachloroethene	Ave	0.3936	0.3948	0.1500	0.0201	0.0200	0.3	30.0
1,3-Dichloropropane	Ave	0.3618	0.3734		0.0206	0.0200	3.2	30.0
2-Hexanone	Ave	0.0858	0.0951	0.0500	0.0443	0.0400	10.9	30.0
Chlorodibromomethane	Ave	0.2713	0.2948		0.0217	0.0200	8.7	30.0
1,2-Dibromoethane	Ave	0.2287	0.2459		0.0215	0.0200	7.6	30.0
Chlorobenzene	Ave	0.9528	0.9798	0.3000	0.0206	0.0200	2.8	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.3449		0.0220	0.0200	10.0	30.0
Ethylbenzene	Ave	0.5190	0.5469		0.0211	0.0200	5.4	30.0
m-Xylene & p-Xylene	Ave	0.6483	0.6837		0.0211	0.0200	5.5	30.0
o-Xylene	Ave	0.6100	0.6582		0.0216	0.0200	7.9	30.0
Styrene	Ave	1.018	1.079	0.3000	0.0212	0.0200	6.1	30.0
Bromoform	Ave	0.1508	0.1564	0.1000	0.0208	0.0200	3.8	30.0
Isopropylbenzene	Ave	1.617	1.749	0.1000	0.0216	0.0200	8.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.5023	0.3000	0.0216	0.0200	8.2	30.0
Bromobenzene	Ave	0.7526	0.7764		0.0206	0.0200	3.2	30.0
1,2,3-Trichloropropane	Ave	0.1805	0.2041		0.0226	0.0200	13.1	30.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1045		0.0214	0.0200	7.2	30.0
N-Propylbenzene	Ave	0.8654	0.9324		0.0215	0.0200	7.7	30.0
2-Chlorotoluene	Ave	0.7278	0.7749		0.0213	0.0200	6.5	30.0
1,3,5-Trimethylbenzene	Ave	2.371	2.607		0.0220	0.0200	9.9	30.0
4-Chlorotoluene	Ave	0.7886	0.8209		0.0208	0.0200	4.1	30.0
tert-Butylbenzene	Ave	2.255	2.456		0.0218	0.0200	8.9	30.0
1,2,4-Trimethylbenzene	Ave	2.455	2.685		0.0219	0.0200	9.4	30.0
sec-Butylbenzene	Ave	3.199	3.475		0.0217	0.0200	8.6	30.0
1,3-Dichlorobenzene	Ave	1.554	1.576	0.6000	0.0203	0.0200	1.4	30.0
4-Isopropyltoluene	Ave	2.783	3.049		0.0219	0.0200	9.6	30.0
1,4-Dichlorobenzene	Ave	1.648	1.637	0.5000	0.0199	0.0200	-0.7	30.0
n-Butylbenzene	Ave	2.247	2.391		0.0213	0.0200	6.4	30.0
1,2-Dichlorobenzene	Ave	1.439	1.505	0.4000	0.0209	0.0200	4.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.1182	0.0500	0.0223	0.0200	11.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.9432	0.2000	0.0196	0.0200	-2.0	50.0
Hexachlorobutadiene	Ave	0.3791	0.3746		0.0198	0.0200	-1.2	30.0
Naphthalene	Ave	1.827	1.975		0.0216	0.0200	8.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.8562		0.0204	0.0200	2.0	30.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2603		0.0214	0.0200	6.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.2229		0.0213	0.0200	6.5	30.0
Toluene-d8 (Surr)	Ave	1.211	1.282		0.0212	0.0200	5.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4561		0.0199	0.0200	-0.4	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3861.D BFB Injection Date: 06/07/2018

Instrument ID: A3UX12 BFB Injection Time: 16:53

Analysis Batch No.: 330580

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	50.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	72.2	
175	5.0 - 9.0 % of mass 174	5.9	(8.2) 1
176	95.0 - 101.0 % of mass 174	68.8	(95.3) 1
177	5.0 - 9.0 % of mass 176	4.2	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-330580/3	U1264283.D	06/07/2018	17:17
	CCVIS 240-330580/4	U1264284.D	06/07/2018	17:40
	LCS 240-330580/5	U1264285.D	06/07/2018	18:04
	MB 240-330580/8	U1264288a.D	06/07/2018	19:14
TB-052518	240-96206-1	U1264293.D	06/07/2018	21:10
MSA-MW-33I-052518	240-96206-3	U1264295.D	06/07/2018	21:57
MSA-MW-15I-052518	240-96206-4	U1264296.D	06/07/2018	22:20
MSA-MW-15D-052518	240-96206-5	U1264297a.D	06/07/2018	22:43
MSA-MW-3-052918	240-96257-2	U1264298.D	06/07/2018	23:06
MSA-MW-54I-052918	240-96257-3	U1264299a.D	06/07/2018	23:30
MSA-MW-54S-052918	240-96257-4	U1264300a.D	06/07/2018	23:53

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-330580/3 Calibration Date: 06/07/2018 17:17

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1264283.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0102		0.230	0.200	15.2	20.0
Diisopropyl ether	Ave	0.1725	0.1812		0.0210	0.0200	5.0	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2536		0.0213	0.0200	6.4	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.4862		0.0209	0.0200	4.5	20.0
Ethyl acetate	Ave	0.0960	0.0885		0.0369	0.0400	-7.8	50.0
Propionitrile	Ave	0.0124	0.0134		0.216	0.200	8.2	20.0
Methacrylonitrile	Ave	0.0563	0.0516		0.183	0.200	-8.3	20.0
Tert-amyl methyl ether	Ave	0.5745	0.5682		0.0198	0.0200	-1.1	20.0
n-Butanol	Lin1		0.0027		0.649	0.500	29.7*	20.0
Ethyl acrylate	Ave	0.1538	0.1419		0.0184	0.0200	-7.8	20.0
Methyl methacrylate	Ave	0.0971	0.0848		0.0350	0.0400	-12.6	20.0
2-Nitropropane	Ave	0.0197	0.0154		0.0313	0.0400	-21.6*	20.0
n-Butyl acetate	Ave	0.2314	0.2092		0.0181	0.0200	-9.6	20.0
1-Chlorohexane	Ave	0.4377	0.4651		0.0212	0.0200	6.2	20.0
Cyclohexanone	Ave	0.0032	0.0040		0.254	0.200	26.9*	20.0
Pentachloroethane	Ave	0.2982	0.3497		0.0469	0.0400	17.3	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.732		0.0230	0.0200	15.2	20.0
Benzyl chloride	Ave	0.7976	0.8155		0.0204	0.0200	2.2	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	0.998		0.0213	0.0200	6.7	20.0
2-Methylnaphthalene	Lin1		0.8647		0.0266	0.0400	-33.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330580/4 Calibration Date: 06/07/2018 17:40

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264284.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.3717	0.1000	0.0211	0.0200	5.5	20.0
Chloromethane	Ave	0.2290	0.2432	0.1000	0.0212	0.0200	6.2	20.0
Vinyl chloride	Ave	0.2642	0.2865	0.1000	0.0217	0.0200	8.4	20.0
Butadiene	Ave	0.2375	0.2639		0.0222	0.0200	11.1	20.0
Bromomethane	Ave	0.2643	0.2625	0.0500	0.0199	0.0200	-0.7	20.0
Chloroethane	Ave	0.1818	0.2015	0.0500	0.0222	0.0200	10.8	20.0
Dichlorofluoromethane	Ave	0.4148	0.4549		0.0219	0.0200	9.7	20.0
Trichlorofluoromethane	Ave	0.4980	0.5451	0.1000	0.0219	0.0200	9.5	20.0
Ethyl ether	Ave	0.1427	0.1599		0.0224	0.0200	12.1	20.0
Acrolein	Ave	0.0225	0.0228		0.101	0.100	1.1	50.0
1,1-Dichloroethene	Ave	0.3066	0.3350	0.1000	0.0218	0.0200	9.2	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2905	0.0500	0.0213	0.0200	6.4	20.0
Acetone	Lin1		0.0335	0.0100	0.0440	0.0400	10.0	50.0
Iodomethane	Ave	0.4286	0.4002		0.0187	0.0200	-6.6	20.0
Carbon disulfide	Ave	0.7522	0.7302	0.1000	0.0194	0.0200	-2.9	20.0
3-Chloro-1-propene	Ave	0.2211	0.2442		0.0221	0.0200	10.4	20.0
Methyl acetate	Ave	0.0825	0.0885*	0.1000	0.0429	0.0400	7.3	20.0
Methylene Chloride	Ave	0.2226	0.2390	0.1000	0.0215	0.0200	7.4	50.0
tert-Butyl alcohol	Ave	0.0159	0.0178		0.224	0.200	11.8	50.0
Acrylonitrile	Ave	0.0412	0.0440		0.214	0.200	6.9	20.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2959	0.1000	0.0209	0.0200	4.4	20.0
Methyl tert-butyl ether	Ave	0.5701	0.6349	0.1000	0.0223	0.0200	11.4	20.0
Hexane	Ave	0.2716	0.2949		0.0217	0.0200	8.6	20.0
1,1-Dichloroethane	Ave	0.3077	0.3387	0.2000	0.0220	0.0200	10.1	20.0
Vinyl acetate	Ave	0.1577	0.1549		0.0197	0.0200	-1.7	50.0
2,2-Dichloropropane	Ave	0.3448	0.3566		0.0207	0.0200	3.4	20.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2719	0.1000	0.0194	0.0200	-2.8	20.0
2-Butanone (MEK)	Ave	0.0173	0.0185	0.0100	0.0428	0.0400	6.9	20.0
Bromochloromethane	Ave	0.1331	0.1340		0.0201	0.0200	0.6	20.0
Tetrahydrofuran	Ave	0.0277	0.0288		0.0417	0.0400	4.2	20.0
Chloroform	Ave	0.3937	0.4152	0.2000	0.0211	0.0200	5.5	20.0
1,1,1-Trichloroethane	Ave	0.3980	0.4141	0.1000	0.0208	0.0200	4.1	20.0
Cyclohexane	Ave	0.4006	0.4303	0.1000	0.0215	0.0200	7.4	20.0
1,1-Dichloropropene	Ave	0.3134	0.3402		0.0217	0.0200	8.6	20.0
Carbon tetrachloride	Ave	0.3465	0.3511	0.1000	0.0203	0.0200	1.3	20.0
Isobutyl alcohol	Ave	0.0032	0.0033		0.516	0.500	3.3	20.0
Benzene	Ave	0.8849	0.9580	0.5000	0.0217	0.0200	8.3	20.0
1,2-Dichloroethane	Ave	0.2402	0.2546	0.1000	0.0212	0.0200	6.0	20.0
n-Heptane	Lin1		0.1841		0.0206	0.0200	3.2	20.0
Trichloroethene	Ave	0.2960	0.2856	0.1500	0.0193	0.0200	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330580/4 Calibration Date: 06/07/2018 17:40

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264284.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4915	0.1000	0.0216	0.0200	8.1	20.0
1,2-Dichloropropane	Ave	0.1717	0.1867	0.1000	0.0217	0.0200	8.7	20.0
Dibromomethane	Ave	0.1451	0.1293		0.0178	0.0200	-10.9	20.0
1,4-Dioxane	Ave	0.0015	0.0015		0.405	0.400	1.2	50.0
Bromodichloromethane	Ave	0.2882	0.3030	0.1500	0.0210	0.0200	5.1	20.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0918		0.0462	0.0400	15.4	20.0
cis-1,3-Dichloropropene	Ave	0.3116	0.3211	0.1500	0.0206	0.0200	3.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.1110	0.0500	0.0435	0.0400	8.7	20.0
Toluene	Ave	1.317	1.424	0.4000	0.0216	0.0200	8.1	20.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3543	0.1000	0.0206	0.0200	2.9	20.0
Ethyl methacrylate	Ave	0.2604	0.2831		0.0217	0.0200	8.7	20.0
1,1,2-Trichloroethane	Ave	0.2286	0.2305	0.1000	0.0202	0.0200	0.8	20.0
Tetrachloroethene	Ave	0.3936	0.3654	0.1500	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.3618	0.3796		0.0210	0.0200	4.9	20.0
2-Hexanone	Ave	0.0858	0.0931	0.0500	0.0434	0.0400	8.6	20.0
Chlorodibromomethane	Ave	0.2713	0.2595		0.0191	0.0200	-4.3	20.0
1,2-Dibromoethane	Ave	0.2287	0.2317		0.0203	0.0200	1.3	20.0
Chlorobenzene	Ave	0.9528	0.9635	0.3000	0.0202	0.0200	1.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.3132		0.0200	0.0200	-0.0	20.0
Ethylbenzene	Ave	0.5190	0.5456		0.0210	0.0200	5.1	20.0
m-Xylene & p-Xylene	Ave	0.6483	0.6801		0.0210	0.0200	4.9	20.0
o-Xylene	Ave	0.6100	0.6556		0.0215	0.0200	7.5	20.0
Styrene	Ave	1.018	1.081	0.3000	0.0212	0.0200	6.2	20.0
Bromoform	Ave	0.1508	0.1383	0.1000	0.0183	0.0200	-8.3	20.0
Isopropylbenzene	Ave	1.617	1.747	0.1000	0.0216	0.0200	8.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.4984	0.3000	0.0215	0.0200	7.4	20.0
Bromobenzene	Ave	0.7526	0.7410		0.0197	0.0200	-1.5	20.0
1,2,3-Trichloropropane	Ave	0.1805	0.1913		0.0212	0.0200	6.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1018		0.0209	0.0200	4.6	20.0
N-Propylbenzene	Ave	0.8654	0.9271		0.0214	0.0200	7.1	20.0
2-Chlorotoluene	Ave	0.7278	0.7669		0.0211	0.0200	5.4	20.0
1,3,5-Trimethylbenzene	Ave	2.371	2.603		0.0219	0.0200	9.7	20.0
4-Chlorotoluene	Ave	0.7886	0.8110		0.0206	0.0200	2.8	20.0
tert-Butylbenzene	Ave	2.255	2.419		0.0215	0.0200	7.3	20.0
1,2,4-Trimethylbenzene	Ave	2.455	2.768		0.0226	0.0200	12.8	20.0
sec-Butylbenzene	Ave	3.199	3.510		0.0219	0.0200	9.7	20.0
1,3-Dichlorobenzene	Ave	1.554	1.523	0.6000	0.0196	0.0200	-2.0	20.0
4-Isopropyltoluene	Ave	2.783	3.036		0.0218	0.0200	9.1	20.0
1,4-Dichlorobenzene	Ave	1.648	1.554	0.5000	0.0188	0.0200	-5.8	20.0
n-Butylbenzene	Ave	2.247	2.513		0.0224	0.0200	11.8	20.0
1,2-Dichlorobenzene	Ave	1.439	1.417	0.4000	0.0197	0.0200	-1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330580/4 Calibration Date: 06/07/2018 17:40

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264284.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.1006	0.0500	0.0190	0.0200	-5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.8396	0.2000	0.0174	0.0200	-12.8	50.0
Hexachlorobutadiene	Ave	0.3791	0.3148		0.0166	0.0200	-17.0	20.0
Naphthalene	Ave	1.827	1.759		0.0193	0.0200	-3.7	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.7102		0.0169	0.0200	-15.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2632		0.0216	0.0200	8.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.2396		0.0229	0.0200	14.5	20.0
Toluene-d8 (Surr)	Ave	1.211	1.365		0.0225	0.0200	12.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4826		0.0211	0.0200	5.3	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: BFB3863.D BFB Injection Date: 06/08/2018

Instrument ID: A3UX12 BFB Injection Time: 16:32

Analysis Batch No.: 330756

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.5	
75	30.0 - 60.0 % of mass 95	51.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	74.3	
175	5.0 - 9.0 % of mass 174	6.1	(8.2) 1
176	95.0 - 101.0 % of mass 174	71.7	(96.5) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-330756/3	U1264311.D	06/08/2018	16:57
	CCVIS 240-330756/4	U1264312.D	06/08/2018	17:20
	LCS 240-330756/5	U1264313a.D	06/08/2018	17:44
	MB 240-330756/8	U1264316.D	06/08/2018	18:53
MSA-MW-33S-052518	240-96206-2	U1264317.D	06/08/2018	19:17
TB-053018	240-96362-1	U1264318.D	06/08/2018	19:40
DMW-1S-053018	240-96362-2	U1264319.D	06/08/2018	20:03
DMW-1A-053018	240-96362-3	U1264320.D	06/08/2018	20:27
DMW-1B-053018	240-96362-4	U1264321.D	06/08/2018	20:50
MSA-MW-19D-053018	240-96362-5	U1264322.D	06/08/2018	21:13
MSA-MW-19D-053018 MS	240-96362-5 MS	U1264337.D	06/09/2018	03:02
MSA-MW-19D-053018 MSD	240-96362-5 MSD	U1264338.D	06/09/2018	03:25

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-330756/3 Calibration Date: 06/08/2018 16:57

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1264311.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0103		0.234	0.200	17.2	20.0
Diisopropyl ether	Ave	0.1725	0.1986		0.0230	0.0200	15.1	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2792		0.0234	0.0200	17.1	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.5179		0.0223	0.0200	11.3	20.0
Ethyl acetate	Ave	0.0960	0.0941		0.0392	0.0400	-2.0	50.0
Propionitrile	Ave	0.0124	0.0133		0.214	0.200	6.9	20.0
Methacrylonitrile	Ave	0.0563	0.0542		0.193	0.200	-3.7	20.0
Tert-amyl methyl ether	Ave	0.5745	0.5914		0.0206	0.0200	2.9	20.0
n-Butanol	Lin1		0.0027		0.648	0.500	29.5*	20.0
Ethyl acrylate	Ave	0.1538	0.1515		0.0197	0.0200	-1.5	20.0
Methyl methacrylate	Ave	0.0971	0.0899		0.0371	0.0400	-7.4	20.0
2-Nitropropane	Ave	0.0197	0.0183		0.0370	0.0400	-7.4	20.0
n-Butyl acetate	Ave	0.2314	0.2140		0.0185	0.0200	-7.5	20.0
1-Chlorohexane	Ave	0.4377	0.4824		0.0220	0.0200	10.2	20.0
Cyclohexanone	Ave	0.0032	0.0037		0.234	0.200	16.8	20.0
Pentachloroethane	Ave	0.2982	0.3582		0.0481	0.0400	20.1*	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.742		0.0231	0.0200	15.6	20.0
Benzyl chloride	Ave	0.7976	0.8454		0.0212	0.0200	6.0	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	0.9765		0.0209	0.0200	4.4	20.0
2-Methylnaphthalene	Lin1		0.7888		0.0243	0.0400	-39.2*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330756/4 Calibration Date: 06/08/2018 17:20

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264312.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.3132	0.1000	0.0178	0.0200	-11.1	20.0
Chloromethane	Ave	0.2290	0.2252	0.1000	0.0197	0.0200	-1.7	20.0
Vinyl chloride	Ave	0.2642	0.2630	0.1000	0.0199	0.0200	-0.4	20.0
Butadiene	Ave	0.2375	0.2430		0.0205	0.0200	2.3	20.0
Bromomethane	Ave	0.2643	0.2525	0.0500	0.0191	0.0200	-4.4	20.0
Chloroethane	Ave	0.1818	0.1839	0.0500	0.0202	0.0200	1.1	20.0
Dichlorofluoromethane	Ave	0.4148	0.4182		0.0202	0.0200	0.8	20.0
Trichlorofluoromethane	Ave	0.4980	0.4943	0.1000	0.0199	0.0200	-0.7	20.0
Ethyl ether	Ave	0.1427	0.1420		0.0199	0.0200	-0.5	20.0
Acrolein	Ave	0.0225	0.0199		0.0882	0.100	-11.8	50.0
1,1-Dichloroethene	Ave	0.3066	0.3118	0.1000	0.0203	0.0200	1.7	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2616	0.0500	0.0192	0.0200	-4.2	20.0
Acetone	Lin1		0.0310	0.0100	0.0405	0.0400	1.2	50.0
Iodomethane	Ave	0.4286	0.3622		0.0169	0.0200	-15.5	20.0
Carbon disulfide	Ave	0.7522	0.6511	0.1000	0.0173	0.0200	-13.4	20.0
3-Chloro-1-propene	Ave	0.2211	0.2159		0.0195	0.0200	-2.3	20.0
Methyl acetate	Ave	0.0825	0.0817*	0.1000	0.0396	0.0400	-0.9	20.0
Methylene Chloride	Ave	0.2226	0.2241	0.1000	0.0201	0.0200	0.7	50.0
tert-Butyl alcohol	Ave	0.0159	0.0153		0.192	0.200	-3.8	50.0
Acrylonitrile	Ave	0.0412	0.0406		0.197	0.200	-1.3	20.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2719	0.1000	0.0192	0.0200	-4.1	20.0
Methyl tert-butyl ether	Ave	0.5701	0.5698	0.1000	0.0200	0.0200	-0.0	20.0
Hexane	Ave	0.2716	0.2580		0.0190	0.0200	-5.0	20.0
1,1-Dichloroethane	Ave	0.3077	0.3099	0.2000	0.0201	0.0200	0.7	20.0
Vinyl acetate	Ave	0.1577	0.1470		0.0186	0.0200	-6.8	50.0
2,2-Dichloropropane	Ave	0.3448	0.3228		0.0187	0.0200	-6.4	20.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2460	0.1000	0.0176	0.0200	-12.0	20.0
2-Butanone (MEK)	Ave	0.0173	0.0162	0.0100	0.0375	0.0400	-6.3	20.0
Bromochloromethane	Ave	0.1331	0.1206		0.0181	0.0200	-9.4	20.0
Tetrahydrofuran	Ave	0.0277	0.0269		0.0389	0.0400	-2.8	20.0
Chloroform	Ave	0.3937	0.3714	0.2000	0.0189	0.0200	-5.7	20.0
1,1,1-Trichloroethane	Ave	0.3980	0.3651	0.1000	0.0183	0.0200	-8.3	20.0
Cyclohexane	Ave	0.4006	0.3813	0.1000	0.0190	0.0200	-4.8	20.0
1,1-Dichloropropene	Ave	0.3134	0.2981		0.0190	0.0200	-4.9	20.0
Carbon tetrachloride	Ave	0.3465	0.3163	0.1000	0.0183	0.0200	-8.7	20.0
Isobutyl alcohol	Ave	0.0032	0.0029		0.456	0.500	-8.8	20.0
Benzene	Ave	0.8849	0.8550	0.5000	0.0193	0.0200	-3.4	20.0
1,2-Dichloroethane	Ave	0.2402	0.2325	0.1000	0.0194	0.0200	-3.2	20.0
n-Heptane	Lin1		0.1648		0.0181	0.0200	-9.4	20.0
Trichloroethene	Ave	0.2960	0.2569	0.1500	0.0174	0.0200	-13.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330756/4 Calibration Date: 06/08/2018 17:20

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264312.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4322	0.1000	0.0190	0.0200	-5.0	20.0
1,2-Dichloropropane	Ave	0.1717	0.1701	0.1000	0.0198	0.0200	-0.9	20.0
Dibromomethane	Ave	0.1451	0.1166		0.0161	0.0200	-19.7	20.0
1,4-Dioxane	Ave	0.0015	0.0012		0.322	0.400	-19.5	50.0
Bromodichloromethane	Ave	0.2882	0.2740	0.1500	0.0190	0.0200	-4.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0838		0.0421	0.0400	5.3	20.0
cis-1,3-Dichloropropene	Ave	0.3116	0.2917	0.1500	0.0187	0.0200	-6.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.0997	0.0500	0.0390	0.0400	-2.4	20.0
Toluene	Ave	1.317	1.310	0.4000	0.0199	0.0200	-0.6	20.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3267	0.1000	0.0190	0.0200	-5.1	20.0
Ethyl methacrylate	Ave	0.2604	0.2620		0.0201	0.0200	0.6	20.0
1,1,2-Trichloroethane	Ave	0.2286	0.2186	0.1000	0.0191	0.0200	-4.4	20.0
Tetrachloroethene	Ave	0.3936	0.3218	0.1500	0.0164	0.0200	-18.2	20.0
1,3-Dichloropropane	Ave	0.3618	0.3552		0.0196	0.0200	-1.8	20.0
2-Hexanone	Ave	0.0858	0.0867	0.0500	0.0404	0.0400	1.1	20.0
Chlorodibromomethane	Ave	0.2713	0.2438		0.0180	0.0200	-10.1	20.0
1,2-Dibromoethane	Ave	0.2287	0.2124		0.0186	0.0200	-7.1	20.0
Chlorobenzene	Ave	0.9528	0.8789	0.3000	0.0184	0.0200	-7.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.2931		0.0187	0.0200	-6.5	20.0
Ethylbenzene	Ave	0.5190	0.5060		0.0195	0.0200	-2.5	20.0
m-Xylene & p-Xylene	Ave	0.6483	0.6132		0.0189	0.0200	-5.4	20.0
o-Xylene	Ave	0.6100	0.6058		0.0199	0.0200	-0.7	20.0
Styrene	Ave	1.018	0.9866	0.3000	0.0194	0.0200	-3.1	20.0
Bromoform	Ave	0.1508	0.1297	0.1000	0.0172	0.0200	-13.9	20.0
Isopropylbenzene	Ave	1.617	1.579	0.1000	0.0195	0.0200	-2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.4756	0.3000	0.0205	0.0200	2.5	20.0
Bromobenzene	Ave	0.7526	0.6664		0.0177	0.0200	-11.5	20.0
1,2,3-Trichloropropane	Ave	0.1805	0.1766		0.0196	0.0200	-2.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1018		0.0209	0.0200	4.5	20.0
N-Propylbenzene	Ave	0.8654	0.8440		0.0195	0.0200	-2.5	20.0
2-Chlorotoluene	Ave	0.7278	0.7171		0.0197	0.0200	-1.5	20.0
1,3,5-Trimethylbenzene	Ave	2.371	2.462		0.0208	0.0200	3.8	20.0
4-Chlorotoluene	Ave	0.7886	0.7659		0.0194	0.0200	-2.9	20.0
tert-Butylbenzene	Ave	2.255	2.241		0.0199	0.0200	-0.6	20.0
1,2,4-Trimethylbenzene	Ave	2.455	2.559		0.0209	0.0200	4.3	20.0
sec-Butylbenzene	Ave	3.199	3.266		0.0204	0.0200	2.1	20.0
1,3-Dichlorobenzene	Ave	1.554	1.393	0.6000	0.0179	0.0200	-10.4	20.0
4-Isopropyltoluene	Ave	2.783	2.815		0.0202	0.0200	1.1	20.0
1,4-Dichlorobenzene	Ave	1.648	1.448	0.5000	0.0176	0.0200	-12.1	20.0
n-Butylbenzene	Ave	2.247	2.357		0.0210	0.0200	4.9	20.0
1,2-Dichlorobenzene	Ave	1.439	1.307	0.4000	0.0182	0.0200	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVIS 240-330756/4 Calibration Date: 06/08/2018 17:20

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264312.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.0984	0.0500	0.0185	0.0200	-7.3	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.7686	0.2000	0.0160	0.0200	-20.1	50.0
Hexachlorobutadiene	Ave	0.3791	0.2832		0.0149	0.0200	-25.3*	20.0
Naphthalene	Ave	1.827	1.643		0.0180	0.0200	-10.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.6700		0.0160	0.0200	-20.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2103		0.0173	0.0200	-13.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.1928		0.0184	0.0200	-7.9	20.0
Toluene-d8 (Surr)	Ave	1.211	1.092		0.0180	0.0200	-9.8	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4059		0.0177	0.0200	-11.4	20.0

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
BFB 240-328331/1		8260C		1 mL	5 mL				
STD8260 240-328331/10 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
STD8260 240-328331/11 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-328331/12 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
ICIS 240-328331/13		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-328331/14 IC		8260C		5 mL	5 mL	2 uL	24 uL		24 uL
STD8260 240-328331/15 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-328331/16 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
ICV 240-328331/17		8260C		5 mL	5 mL	2 uL		2 uL	
STDA9 240-328331/20 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/21 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/22 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/23 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/24 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-328331/25 IC		8260C		5 mL	5 mL	2 uL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00324	vm50ss_stk 00077	vmarolistdw 00248
ICV 240-328331/26		8260C		5 mL	5 mL	2 uL		2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
BFB 240-328331/1		8260C		1 uL					
STD8260 240-328331/10 IC		8260C							
STD8260 240-328331/11 IC		8260C							
STD8260 240-328331/12 IC		8260C							
ICIS 240-328331/13		8260C							
STD8260 240-328331/14 IC		8260C							
STD8260 240-328331/15 IC		8260C							
STD8260 240-328331/16 IC		8260C							
ICV 240-328331/17		8260C				16 uL	16 uL	16 uL	
STDA9 240-328331/20 IC		8260C							0.4 uL
STDA9 240-328331/21 IC		8260C							0.8 uL
STDA9 240-328331/22 IC		8260C							8 uL
STDA9 240-328331/23 IC		8260C							16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00019	VMFASA9W 00187	vmfasaw 00234	vmfasgw 00258	vmfaspw 00252	vmra9w 00251
STDA9 240-328331/24 IC		8260C							32 uL
STDA9 240-328331/25 IC		8260C							48 uL
ICV 240-328331/26		8260C			16 uL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
BFB 240-328331/1		8260C							
STD8260 240-328331/10 IC		8260C		0.4 uL	0.4 uL				
STD8260 240-328331/11 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-328331/12 IC		8260C		8 uL	8 uL				
ICIS 240-328331/13		8260C		16 uL	16 uL				
STD8260 240-328331/14 IC		8260C		24 uL	24 uL				
STD8260 240-328331/15 IC		8260C		32 uL	32 uL				
STD8260 240-328331/16 IC		8260C		48 uL	48 uL				
ICV 240-328331/17		8260C							
STDA9 240-328331/20 IC		8260C							
STDA9 240-328331/21 IC		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328331 Batch Start Date: 05/24/18 11:19 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00247	vmrprimw 00285				
STDA9 240-328331/22 IC		8260C							
STDA9 240-328331/23 IC		8260C							
STDA9 240-328331/24 IC		8260C							
STDA9 240-328331/25 IC		8260C							
ICV 240-328331/26		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329778 Batch Start Date: 06/03/18 10:18 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00250
BFB 240-329778/1		8260C		1 mL	5 mL				
LCS 240-329778/4		8260C		5 mL	5 mL		2 uL	2 uL	
CCVIS 240-329778/5		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
CCV 240-329778/6		8260C		5 mL	5 mL		2 uL		
MB 240-329778/9		8260C		5 mL	5 mL		2 uL	2 uL	
240-96144-B-1	TB-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-2	MSA-MW-24S-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-3	MSA-MW-24I-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-4	MSA-MW-30I-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-A-5	MSA-MW-45S-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-6	DMW-10S-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-7	DMW-10I-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-8	MSA-MW-21I-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-B-9	MSA-MW-21D-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-A-5 MS	MSA-MW-45S-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-A-5 MSD	MSA-MW-45S-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmra9w 00253	vmrgas 00249
BFB 240-329778/1		8260C		1 uL					
LCS 240-329778/4		8260C			16 uL	16 uL	16 uL		
CCVIS 240-329778/5		8260C							16 uL
CCV 240-329778/6		8260C						16 uL	
MB 240-329778/9		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329778 Batch Start Date: 06/03/18 10:18 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmra9w 00253	vmrgas 00249
240-96144-B-1	TB-052318	8260C	T						
240-96144-B-2	MSA-MW-24S-052318	8260C	T						
240-96144-B-3	MSA-MW-24I-052318	8260C	T						
240-96144-B-4	MSA-MW-30I-052318	8260C	T						
240-96144-A-5	MSA-MW-45S-052318	8260C	T						
240-96144-B-6	DMW-10S-052418	8260C	T						
240-96144-B-7	DMW-10I-052418	8260C	T						
240-96144-B-8	MSA-MW-21I-052418	8260C	T						
240-96144-B-9	MSA-MW-21D-052418	8260C	T						
240-96144-A-5 MS	MSA-MW-45S-052318	8260C	T		16 uL	16 uL	16 uL		
240-96144-A-5 MSD	MSA-MW-45S-052318	8260C	T		16 uL	16 uL	16 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-329778/1		8260C							
LCS 240-329778/4		8260C							
CCVIS 240-329778/5		8260C		16 uL					
CCV 240-329778/6		8260C							
MB 240-329778/9		8260C							
240-96144-B-1	TB-052318	8260C	T						
240-96144-B-2	MSA-MW-24S-052318	8260C	T						
240-96144-B-3	MSA-MW-24I-052318	8260C	T						
240-96144-B-4	MSA-MW-30I-052318	8260C	T						
240-96144-A-5	MSA-MW-45S-052318	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329778 Batch Start Date: 06/03/18 10:18 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
240-96144-B-6	DMW-10S-052418	8260C	T						
240-96144-B-7	DMW-10I-052418	8260C	T						
240-96144-B-8	MSA-MW-21I-052418	8260C	T						
240-96144-B-9	MSA-MW-21D-052418	8260C	T						
240-96144-A-5 MS	MSA-MW-45S-052318	8260C	T						
240-96144-A-5 MSD	MSA-MW-45S-052318	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329972 Batch Start Date: 06/04/18 16:25 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00250
BFB 240-329972/1		8260C		1 mL	5 mL				
CCV 240-329972/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-329972/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-329972/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-329972/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-96144-B-5	MSA-MW-45S-052318	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-A-7	DMW-10I-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96144-A-8	MSA-MW-21I-052418	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmra9w 00253	vmrgas 00249
BFB 240-329972/1		8260C		1 uL					
CCV 240-329972/3		8260C						16 uL	
CCVIS 240-329972/4		8260C							16 uL
LCS 240-329972/5		8260C			16 uL	16 uL	16 uL		
MB 240-329972/8		8260C							
240-96144-B-5	MSA-MW-45S-052318	8260C	T						
240-96144-A-7	DMW-10I-052418	8260C	T						
240-96144-A-8	MSA-MW-21I-052418	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286
BFB 240-329972/1		8260C		
CCV 240-329972/3		8260C		
CCVIS 240-329972/4		8260C		16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329972 Batch Start Date: 06/04/18 16:25 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
LCS 240-329972/5		8260C							
MB 240-329972/8		8260C							
240-96144-B-5	MSA-MW-45S-052318	8260C	T						
240-96144-A-7	DMW-10I-052418	8260C	T						
240-96144-A-8	MSA-MW-21I-052418	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330161 Batch Start Date: 06/05/18 17:08 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00325	vm50ss_stk 00077	vmarolistdw 00250
BFB 240-330161/2		8260C		1 mL	5 mL				
ICIS 240-330161/4		8260C		5 mL	5 mL	2 uL		2 uL	16 uL
ICV 240-330161/5		8260C		5 mL	5 mL	2 uL		2 uL	
STD8260 240-330161/9 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-330161/10 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-330161/11 IC		8260C		5 mL	5 mL	2 uL	24 uL		24 uL
STD8260 240-330161/13 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
STD8260 240-330161/14 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-330161/15 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmrgas 00249	vmrprimw 00286
BFB 240-330161/2		8260C		1 uL					
ICIS 240-330161/4		8260C						16 uL	16 uL
ICV 240-330161/5		8260C			16 uL	16 uL	16 uL		
STD8260 240-330161/9 IC		8260C						48 uL	48 uL
STD8260 240-330161/10 IC		8260C						32 uL	32 uL
STD8260 240-330161/11 IC		8260C						24 uL	24 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330161 Batch Start Date: 06/05/18 17:08 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmrgas 00249	vmrprimw 00286
STD8260 240-330161/13 IC		8260C						8 uL	8 uL
STD8260 240-330161/14 IC		8260C						0.8 uL	0.8 uL
STD8260 240-330161/15 IC		8260C						0.4 uL	0.4 uL

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330580 Batch Start Date: 06/07/18 16:53 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00250
BFB 240-330580/1		8260C		1 mL	5 mL				
CCV 240-330580/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-330580/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-330580/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-330580/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-96206-B-1	TB-052518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96206-B-3	MSA-MW-33I-052518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96206-B-4	MSA-MW-15I-052518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96206-B-5	MSA-MW-15D-052518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96257-B-2	MSA-MW-3-052918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96257-B-3	MSA-MW-54I-052918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96257-B-4	MSA-MW-54S-052918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmra9w 00253	vmrgas 00249
BFB 240-330580/1		8260C		1 uL					
CCV 240-330580/3		8260C						16 uL	
CCVIS 240-330580/4		8260C							16 uL
LCS 240-330580/5		8260C			16 uL	16 uL	16 uL		
MB 240-330580/8		8260C							
240-96206-B-1	TB-052518	8260C	T						
240-96206-B-3	MSA-MW-33I-052518	8260C	T						
240-96206-B-4	MSA-MW-15I-052518	8260C	T						
240-96206-B-5	MSA-MW-15D-052518	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330580 Batch Start Date: 06/07/18 16:53 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00235	vmfasgw 00260	vmfaspw 00253	vmra9w 00253	vmrgas 00249
240-96257-B-2	MSA-MW-3-052918	8260C	T						
240-96257-B-3	MSA-MW-54I-052918	8260C	T						
240-96257-B-4	MSA-MW-54S-052918	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-330580/1		8260C							
CCV 240-330580/3		8260C							
CCVIS 240-330580/4		8260C		16 uL					
LCS 240-330580/5		8260C							
MB 240-330580/8		8260C							
240-96206-B-1	TB-052518	8260C	T						
240-96206-B-3	MSA-MW-33I-052518	8260C	T						
240-96206-B-4	MSA-MW-15I-052518	8260C	T						
240-96206-B-5	MSA-MW-15D-052518	8260C	T						
240-96257-B-2	MSA-MW-3-052918	8260C	T						
240-96257-B-3	MSA-MW-54I-052918	8260C	T						
240-96257-B-4	MSA-MW-54S-052918	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330756 Batch Start Date: 06/08/18 16:32 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00250
BFB 240-330756/2		8260C		1 mL	5 mL				
CCV 240-330756/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-330756/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-330756/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-330756/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-96206-C-2	MSA-MW-33S-052518	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-A-1	TB-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-B-2	DMW-1S-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-B-3	DMW-1A-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-B-4	DMW-1B-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-B-5	MSA-MW-19D-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-E-5 MS	MSA-MW-19D-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-96362-H-5 MSD	MSA-MW-19D-053018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00236	vmfasgw 00260	vmfaspw 00254	vmra9w 00253	vmrgas 00249
BFB 240-330756/2		8260C		1 uL					
CCV 240-330756/3		8260C						16 uL	
CCVIS 240-330756/4		8260C							16 uL
LCS 240-330756/5		8260C			16 uL	16 uL	16 uL		
MB 240-330756/8		8260C							
240-96206-C-2	MSA-MW-33S-052518	8260C	T						
240-96362-A-1	TB-053018	8260C	T						
240-96362-B-2	DMW-1S-053018	8260C	T						
240-96362-B-3	DMW-1A-053018	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330756 Batch Start Date: 06/08/18 16:32 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00236	vmfasgw 00260	vmfaspw 00254	vmra9w 00253	vmrgas 00249
240-96362-B-4	DMW-1B-053018	8260C	T						
240-96362-B-5	MSA-MW-19D-053018	8260C	T						
240-96362-E-5 MS	MSA-MW-19D-053018	8260C	T		16 uL	16 uL	16 uL		
240-96362-H-5 MSD	MSA-MW-19D-053018	8260C	T		16 uL	16 uL	16 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00286					
BFB 240-330756/2		8260C							
CCV 240-330756/3		8260C							
CCVIS 240-330756/4		8260C		16 uL					
LCS 240-330756/5		8260C							
MB 240-330756/8		8260C							
240-96206-C-2	MSA-MW-33S-052518	8260C	T						
240-96362-A-1	TB-053018	8260C	T						
240-96362-B-2	DMW-1S-053018	8260C	T						
240-96362-B-3	DMW-1A-053018	8260C	T						
240-96362-B-4	DMW-1B-053018	8260C	T						
240-96362-B-5	MSA-MW-19D-053018	8260C	T						
240-96362-E-5 MS	MSA-MW-19D-053018	8260C	T						
240-96362-H-5 MSD	MSA-MW-19D-053018	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
MSA-MW-24S-052318	240-96144-2	66	57	70	63	78	75
MSA-MW-24I-052318	240-96144-3	60	51	63	59	73	78
MSA-MW-30I-052318	240-96144-4	46	37	55	51	64	76
MSA-MW-45S-052318	240-96144-5	50	37	61	65	62	74
DMW-10S-052418	240-96144-6	54	35	70	66	96	80
DMW-10I-052418	240-96144-7	61	52	73	69	89	74
MSA-MW-21I-052418	240-96144-8	64	48	66	58	77	74
MSA-MW-21D-052418	240-96144-9	49	33	56	53	66	71
MSA-MW-33S-052518	240-96206-2	63	43	71	70	94	83
MSA-MW-33I-052518	240-96206-3	63	47	72	68	93	87
MSA-MW-15I-052518	240-96206-4	70	57	80	77	102	85
MSA-MW-15D-052518	240-96206-5	71	60	80	78	104	98
MSA-MW-3-052918	240-96257-2	62	53	70	74	82	81
MSA-MW-54I-052918	240-96257-3	40	31	51	50	71	78
MSA-MW-54S-052918	240-96257-4	45	40	57	63	89	98
DMW-1S-053018	240-96362-2	59	40	60	55	70	89
DMW-1A-053018	240-96362-3	68	45	58	62	68	71
DMW-1B-053018	240-96362-4	61	52	64	60	77	84
MSA-MW-19D-053018	240-96362-5	69	56	69	66	78	94
	MB 240-328700/18-A	61	45	71	72	80	93
	MB 240-329092/10-A	59	57	79	79	95	111
	MB 240-329317/15-A	48	42	58	63	69	75
	MB 240-329507/7-A	64	51	69	65	77	95
	MB 240-330216/6-A	74	49	70	73	77	85
	LCS 240-328700/19-A	71	62	88	80	96	85
	LCS 240-329092/11-A	61	42	91	80	117	94
	LCS 240-329317/16-A	62	52	89	83	113	91
	LCS 240-329507/8-A	77	53	86	82	94	88
	LCS 240-330216/7-A	86	50	81	77	89	79
	LCSD 240-328700/20-A	70	56	83	76	90	80

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
	LCSD 240-329092/12-A	63	48	90	78	108	89
	LCSD 240-329317/17-A	60	46	86	79	108	89
MSA-MW-19D-053018 MS	240-96362-5 MS	59	51	65	58	78	73
MSA-MW-19D-053018 MSD	240-96362-5 MSD	67	43	68	60	81	78

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		157920	6.85	721640	7.92	355264	9.41
UPPER LIMIT		315840	7.35	1443280	8.42	710528	9.91
LOWER LIMIT		78960	6.35	360820	7.42	177632	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		164461	6.85	767073	7.92	379963	9.42
STD6 240-329083/2 CCVIS		163319	6.86	792620	7.92	388503	9.42
STD6 240-329293/2 CCVIS		137788	6.85	745022	7.92	370730	9.42
STD6 240-329484/2 CCVIS		153466	6.84	757288	7.91	377647	9.41
STD6 240-329813/2 CCVIS		123620	6.83	717863	7.91	360600	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-327899/5 Date Analyzed: 05/22/2018 08:16

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80522005.D Heated Purge: (Y/N) N

Calibration ID: 45314

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		593380	10.70	584623	13.65	547873	16.03
UPPER LIMIT		1186760	11.20	1169246	14.15	1095746	16.53
LOWER LIMIT		296690	10.20	292312	13.15	273937	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-327899/11		625512	10.70	619445	13.66	556290	16.04
STD6 240-329083/2 CCVIS		613040	10.70	570621	13.67	508046	16.05
STD6 240-329293/2 CCVIS		611140	10.70	584834	13.65	523484	16.03
STD6 240-329484/2 CCVIS		634032	10.69	616707	13.65	576084	16.02
STD6 240-329813/2 CCVIS		591066	10.68	587187	13.64	536830	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329083/2 Date Analyzed: 05/30/2018 06:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80530002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		163319	6.86	792620	7.92	388503	9.42
UPPER LIMIT		326638	7.36	1585240	8.42	777006	9.92
LOWER LIMIT		81660	6.36	396310	7.42	194252	8.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328700/19-A		143417	6.86	726378	7.92	361655	9.42
LCSD 240-328700/20-A		155465	6.86	769954	7.92	387670	9.42
240-96144-2	MSA-MW-24S-052318	141279	6.86	767431	7.92	397222	9.42
240-96144-3	MSA-MW-24I-052318	140238	6.85	773875	7.92	387622	9.42
240-96144-4	MSA-MW-30I-052318	144580	6.86	739289	7.92	384802	9.42
MB 240-328700/18-A		150407	6.85	722213	7.92	351827	9.42
240-96144-7	DMW-10I-052418	136602	6.85	733942	7.92	371624	9.42
240-96144-8	MSA-MW-21I-052418	152370	6.86	740242	7.92	392830	9.42
240-96144-9	MSA-MW-21D-052418	151720	6.85	698110	7.92	373437	9.42

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329083/2 Date Analyzed: 05/30/2018 06:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80530002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		613040	10.70	570621	13.67	508046	16.05
UPPER LIMIT		1226080	11.20	1141242	14.17	1016092	16.55
LOWER LIMIT		306520	10.20	285311	13.17	254023	15.55
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-328700/19-A		635915	10.70	596348	13.66	516360	16.05
LCSD 240-328700/20-A		670079	10.70	651442	13.66	553450	16.05
240-96144-2	MSA-MW-24S-052318	776214	10.70	634504	13.66	565504	16.05
240-96144-3	MSA-MW-24I-052318	792807	10.70	630773	13.66	576454	16.05
240-96144-4	MSA-MW-30I-052318	777389	10.70	610986	13.66	553709	16.05
MB 240-328700/18-A		715147	10.70	570560	13.66	553467	16.05
240-96144-7	DMW-10I-052418	773971	10.70	656587	13.66	604900	16.04
240-96144-8	MSA-MW-21I-052418	798892	10.70	659150	13.66	591549	16.05
240-96144-9	MSA-MW-21D-052418	806898	10.70	628327	13.66	587788	16.05

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329293/2 Date Analyzed: 05/31/2018 06:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80531002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		137788	6.85	745022	7.92	370730	9.42
UPPER LIMIT		275576	7.35	1490044	8.42	741460	9.92
LOWER LIMIT		68894	6.35	372511	7.42	185365	8.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-329092/10-A		115934	6.85	714934	7.92	342333	9.41
LCS 240-329092/11-A		125808	6.85	652608	7.92	323284	9.41
LCSD 240-329092/12-A		116848	6.85	649138	7.92	325270	9.41
240-96144-6	DMW-10S-052418	129612	6.85	718518	7.92	363683	9.41
240-96144-5	MSA-MW-45S-052318	135830	6.85	695148	7.92	305633	9.41
240-96206-2	MSA-MW-33S-052518	135942	6.85	688260	7.92	355963	9.41
240-96206-3	MSA-MW-33I-052518	140896	6.85	675483	7.92	332656	9.41
240-96206-4	MSA-MW-15I-052518	131534	6.85	673610	7.92	346997	9.41
240-96206-5	MSA-MW-15D-052518	124550	6.85	684794	7.92	336937	9.41

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329293/2 Date Analyzed: 05/31/2018 06:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80531002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		611140	10.70	584834	13.65	523484	16.03
UPPER LIMIT		1222280	11.20	1169668	14.15	1046968	16.53
LOWER LIMIT		305570	10.20	292417	13.15	261742	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-329092/10-A		651348	10.69	526134	13.65	509044	16.03
LCS 240-329092/11-A		538295	10.69	529539	13.65	469235	16.03
LCSD 240-329092/12-A		549374	10.69	542285	13.65	481894	16.03
240-96144-6	DMW-10S-052418	688244	10.69	596752	13.65	555025	16.03
240-96144-5	MSA-MW-45S-052318	660258	10.69	548447	13.65	524533	16.03
240-96206-2	MSA-MW-33S-052518	680180	10.69	564175	13.65	544084	16.03
240-96206-3	MSA-MW-33I-052518	656978	10.69	543306	13.65	527501	16.03
240-96206-4	MSA-MW-15I-052518	671967	10.69	587476	13.65	566974	16.03
240-96206-5	MSA-MW-15D-052518	649697	10.69	534505	13.65	525608	16.03

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329484/2 Date Analyzed: 06/01/2018 06:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80601002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		153466	6.84	757288	7.91	377647	9.41
UPPER LIMIT		306932	7.34	1514576	8.41	755294	9.91
LOWER LIMIT		76733	6.34	378644	7.41	188824	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-329317/15-A		127266	6.84	700784	7.91	304477	9.41
LCS 240-329317/16-A		113504	6.84	606013	7.91	306483	9.41
LCSD 240-329317/17-A		120499	6.84	624410	7.91	320844	9.41
240-96257-2	MSA-MW-3-052918	114981	6.84	602127	7.91	265473	9.41

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329484/2 Date Analyzed: 06/01/2018 06:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80601002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		634032	10.69	616707	13.65	576084	16.02
UPPER LIMIT		1268064	11.19	1233414	14.15	1152168	16.52
LOWER LIMIT		317016	10.19	308354	13.15	288042	15.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-329317/15-A		640463	10.69	576355	13.64	533833	16.02
LCS 240-329317/16-A		535947	10.69	535601	13.65	478865	16.02
LCSD 240-329317/17-A		547326	10.69	559777	13.65	502437	16.02
240-96257-2	MSA-MW-3-052918	586958	10.69	512233	13.64	492344	16.02

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329813/2 Date Analyzed: 06/04/2018 06:28

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80604002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		123620	6.83	717863	7.91	360600	9.40
UPPER LIMIT		247240	7.33	1435726	8.41	721200	9.90
LOWER LIMIT		61810	6.33	358932	7.41	180300	8.90
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96257-3	MSA-MW-54I-052918	115155	6.83	634795	7.90	331047	9.40
240-96257-4	MSA-MW-54S-052918	133576	6.83	703990	7.90	320900	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-329813/2 Date Analyzed: 06/04/2018 06:28

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80604002.D Heated Purge: (Y/N) N

Calibration ID: 45320

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		591066	10.68	587187	13.64	536830	16.01
UPPER LIMIT		1182132	11.18	1174374	14.14	1073660	16.51
LOWER LIMIT		295533	10.18	293594	13.14	268415	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96257-3	MSA-MW-54I-052918	599385	10.68	508430	13.63	493096	16.00
240-96257-4	MSA-MW-54S-052918	621751	10.68	539551	13.63	519670	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330024/5 Date Analyzed: 06/05/2018 08:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80605005.D Heated Purge: (Y/N) N

Calibration ID: 45481

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		118988	6.84	622548	7.91	304450	9.41
UPPER LIMIT		237976	7.34	1245096	8.41	608900	9.91
LOWER LIMIT		59494	6.34	311274	7.41	152225	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330024/11		120047	6.84	627864	7.91	308528	9.41
MB 240-329507/7-A		91178	6.84	524091	7.91	253532	9.41
LCS 240-329507/8-A		99059	6.84	494975	7.91	254741	9.41
240-96362-2	DMW-1S-053018	115070	6.84	576719	7.91	279735	9.41
240-96362-4	DMW-1B-053018	83748	6.84	528686	7.91	272480	9.41
240-96362-5	MSA-MW-19D-053018	81138	6.84	499446	7.91	247078	9.41
STD6 240-330212/2 CCVIS		106434	6.84	598525	7.91	299304	9.41
STD6 240-330413/2 CCVIS		110000	6.82	570985	7.89	277037	9.39

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330024/5 Date Analyzed: 06/05/2018 08:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80605005.D Heated Purge: (Y/N) N

Calibration ID: 45481

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		499779	10.69	479970	13.66	418758	16.03
UPPER LIMIT		999558	11.19	959940	14.16	837516	16.53
LOWER LIMIT		249890	10.19	239985	13.16	209379	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330024/11		517210	10.69	486260	13.66	409600	16.03
MB 240-329507/7-A		519462	10.69	406059	13.66	337262	16.04
LCS 240-329507/8-A		438951	10.70	418111	13.66	328353	16.04
240-96362-2	DMW-1S-053018	560093	10.69	418651	13.66	360754	16.03
240-96362-4	DMW-1B-053018	542038	10.69	443482	13.66	375962	16.03
240-96362-5	MSA-MW-19D-053018	523435	10.69	401714	13.66	352522	16.04
STD6 240-330212/2 CCVIS		493480	10.69	467111	13.65	436876	16.02
STD6 240-330413/2 CCVIS		463354	10.68	464601	13.64	441656	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330212/2 Date Analyzed: 06/06/2018 07:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80606002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		106434	6.84	598525	7.91	299304	9.41
UPPER LIMIT		212868	7.34	1197050	8.41	598608	9.91
LOWER LIMIT		53217	6.34	299263	7.41	149652	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-330212/3 CCV		87904	6.84	555980	7.91	283959	9.41
240-96362-5 MS	MSA-MW-19D-053018 MS	96791	6.84	574431	7.91	286816	9.40
240-96362-5 MSD	MSA-MW-19D-053018 MSD	102258	6.84	544292	7.91	275735	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330212/2 Date Analyzed: 06/06/2018 07:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80606002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		493480	10.69	467111	13.65	436876	16.02
UPPER LIMIT		986960	11.19	934222	14.15	873752	16.52
LOWER LIMIT		246740	10.19	233556	13.15	218438	15.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-330212/3 CCV		492184	10.69	412638	13.65	387727	16.02
240-96362-5 MS	MSA-MW-19D-053018 MS	503088	10.69	479299	13.65	445306	16.02
240-96362-5 MSD	MSA-MW-19D-053018 MSD	472187	10.69	447677	13.65	406460	16.02

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330413/2 Date Analyzed: 06/07/2018 08:18

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80607002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		110000	6.82	570985	7.89	277037	9.39
UPPER LIMIT		220000	7.32	1141970	8.39	554074	9.89
LOWER LIMIT		55000	6.32	285493	7.39	138519	8.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-330216/6-A		102887	6.82	570373	7.89	264724	9.39
LCS 240-330216/7-A		101259	6.82	553256	7.89	283214	9.39
240-96362-3	DMW-1A-053018	92888	6.82	497599	7.89	248787	9.39

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD6 240-330413/2 Date Analyzed: 06/07/2018 08:18

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80607002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		463354	10.68	464601	13.64	441656	16.01
UPPER LIMIT		926708	11.18	929202	14.14	883312	16.51
LOWER LIMIT		231677	10.18	232301	13.14	220828	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-330216/6-A		575621	10.68	484090	13.63	495496	16.00
LCS 240-330216/7-A		469580	10.68	479574	13.63	441702	16.00
240-96362-3	DMW-1A-053018	495133	10.68	441294	13.63	409795	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80530030.D Lab Sample ID: MB 240-328700/18-A

Matrix: Water Date Extracted: 05/26/2018 07:27

Instrument ID: A4AG2 Date Analyzed: 05/30/2018 13:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-328700/19-A	80530005.D	05/30/2018 08:10
	LCSD 240-328700/20-A	80530006.D	05/30/2018 08:35
MSA-MW-24S-052318	240-96144-2	80530011.D	05/30/2018 10:39
MSA-MW-24I-052318	240-96144-3	80530012.D	05/30/2018 11:04
MSA-MW-30I-052318	240-96144-4	80530013.D	05/30/2018 11:54
DMW-10I-052418	240-96144-7	80530016.D	05/30/2018 13:34
MSA-MW-21I-052418	240-96144-8	80530017.D	05/30/2018 13:59
MSA-MW-21D-052418	240-96144-9	80530018.D	05/30/2018 14:24
DMW-10S-052418	240-96144-6	80531009.D	05/31/2018 09:24
MSA-MW-45S-052318	240-96144-5	80531010.D	05/31/2018 09:49

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328700/18-A

Matrix: Water | Lab File ID: 80530030.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/26/2018 07:27

Sample wt/vol: 250(mL) | Date Analyzed: 05/30/2018 13:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329083 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	93		28-128
4165-62-2	Phenol-d5 (Surr)	45		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		35-120
367-12-4	2-Fluorophenol (Surr)	61		17-120
321-60-8	2-Fluorobiphenyl (Surr)	72		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	80		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80530005.D

Lab ID: LCS 240-328700/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.0	44	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80530006.D

Lab ID: LCSD 240-328700/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	13.9	43	1	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80531003.D Lab Sample ID: MB 240-329092/10-A

Matrix: Water Date Extracted: 05/30/2018 06:41

Instrument ID: A4AG2 Date Analyzed: 05/31/2018 06:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329092/11-A	80531004.D	05/31/2018 07:20
	LCSD 240-329092/12-A	80531005.D	05/31/2018 07:45
MSA-MW-33S-052518	240-96206-2	80531016.D	05/31/2018 12:18
MSA-MW-33I-052518	240-96206-3	80531017.D	05/31/2018 12:43
MSA-MW-15I-052518	240-96206-4	80531018.D	05/31/2018 13:08
MSA-MW-15D-052518	240-96206-5	80531019.D	05/31/2018 13:33

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329092/10-A

Matrix: Water | Lab File ID: 80531003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/30/2018 06:41

Sample wt/vol: 250(mL) | Date Analyzed: 05/31/2018 06:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	111		28-128
4165-62-2	Phenol-d5 (Surr)	57		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	79		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	79		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	95		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80531004.D

Lab ID: LCS 240-329092/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	13.1	41	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80531005.D

Lab ID: LCSD 240-329092/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	15.2	48	15	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80601003.D Lab Sample ID: MB 240-329317/15-A

Matrix: Water Date Extracted: 05/31/2018 07:51

Instrument ID: A4AG2 Date Analyzed: 06/01/2018 06:52

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329317/16-A	80601004.D	06/01/2018 07:17
	LCSD 240-329317/17-A	80601005.D	06/01/2018 07:41
MSA-MW-3-052918	240-96257-2	80601025.D	06/01/2018 15:57
MSA-MW-54I-052918	240-96257-3	80604004.D	06/04/2018 07:20
MSA-MW-54S-052918	240-96257-4	80604005.D	06/04/2018 07:44

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329317/15-A

Matrix: Water | Lab File ID: 80601003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/31/2018 07:51

Sample wt/vol: 250(mL) | Date Analyzed: 06/01/2018 06:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329484 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	42		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-120
367-12-4	2-Fluorophenol (Surr)	48		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	69		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80601004.D

Lab ID: LCS 240-329317/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	13.5	42	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80601005.D

Lab ID: LCSD 240-329317/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	13.1	41	3	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80605021.D Lab Sample ID: MB 240-329507/7-A

Matrix: Water Date Extracted: 06/01/2018 06:35

Instrument ID: A4AG2 Date Analyzed: 06/05/2018 15:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329507/8-A	80605022.D	06/05/2018 15:25
DMW-1S-053018	240-96362-2	80605026.D	06/05/2018 17:03
DMW-1B-053018	240-96362-4	80605028.D	06/05/2018 17:52
MSA-MW-19D-053018	240-96362-5	80605029.D	06/05/2018 18:17
MSA-MW-19D-053018 MS	240-96362-5 MS	80606009.D	06/06/2018 10:07
MSA-MW-19D-053018 MSD	240-96362-5 MSD	80606010.D	06/06/2018 10:31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329507/7-A

Matrix: Water | Lab File ID: 80605021.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/01/2018 06:35

Sample wt/vol: 250(mL) | Date Analyzed: 06/05/2018 15:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	95		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	77		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80605022.D

Lab ID: LCS 240-329507/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.1	44	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80606009.D

Lab ID: 240-96362-5 MS Client ID: MSA-MW-19D-053018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	29.6	0.37 U	12.1	41	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80606010.D

Lab ID: 240-96362-5 MSD Client ID: MSA-MW-19D-053018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	29.6	13.2	45	9	35	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80607003.D Lab Sample ID: MB 240-330216/6-A

Matrix: Water Date Extracted: 06/06/2018 06:38

Instrument ID: A4AG2 Date Analyzed: 06/07/2018 08:43

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-330216/7-A	80607004.D	06/07/2018 09:07
DMW-1A-053018	240-96362-3	80607014.D	06/07/2018 13:13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330216/6-A

Matrix: Water | Lab File ID: 80607003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/06/2018 06:38

Sample wt/vol: 250(mL) | Date Analyzed: 06/07/2018 08:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		28-128
4165-62-2	Phenol-d5 (Surr)	49		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		35-120
367-12-4	2-Fluorophenol (Surr)	74		17-120
321-60-8	2-Fluorobiphenyl (Surr)	73		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	77		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80607004.D

Lab ID: LCS 240-330216/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	17.3	54	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80522001.D DFTPP Injection Date: 05/22/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:44

Analysis Batch No.: 327899

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.5	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	40.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	10.6	
442	40.0 - 110.0% of mass 198	72.1	
443	15.0 - 24.0% of mass 442	13.8	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-327899/2	80522002.D	05/22/2018	07:02
	STD8 240-327899/3	80522003.D	05/22/2018	07:26
	STD7 240-327899/4	80522004.D	05/22/2018	07:51
	STD6 240-327899/5	80522005.D	05/22/2018	08:16
	STD5 240-327899/6	80522006.D	05/22/2018	08:41
	STD4 240-327899/7	80522007.D	05/22/2018	09:06
	STD3 240-327899/8	80522008.D	05/22/2018	09:31
	STD2 240-327899/9	80522009.D	05/22/2018	09:55
	STD1 240-327899/10	80522010.D	05/22/2018	10:20
	ICV 240-327899/11	80522011.D	05/22/2018	10:45

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 327899

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/22/2018 07:02 Calibration End Date: 05/22/2018 10:20 Calibration ID: 45314

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-327899/10	80522010.D
Level 2	STD2 240-327899/9	80522009.D
Level 3	STD3 240-327899/8	80522008.D
Level 4	STD4 240-327899/7	80522007.D
Level 5	STD5 240-327899/6	80522006.D
Level 6	STD6 240-327899/5	80522005.D
Level 7	STD7 240-327899/4	80522004.D
Level 8	STD8 240-327899/3	80522003.D
Level 9	STD9 240-327899/2	80522002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2629	0.2709 0.3448	0.2953 0.2859	0.2820 0.2887	0.2688	Ave		0.2874				8.9		20.0			
N-Nitrosodimethylamine	1.0029	0.9052 1.0332	0.9282 1.0058	0.9513 1.0373	1.0161	Ave		0.9850				5.1		20.0			
Pyridine	0.9820 0.8006	0.7708 1.1099	0.7848 0.9630	0.7922 0.9506	0.8115	Ave		0.8850				13.5		20.0			
Benzaldehyde	+++++ 1.0761	1.5315 0.9497	1.4329 0.8429	1.4386 0.7958	1.1853	Qua	80.573	1.1646	-0.000079		0.0100				0.9990		0.9900
Phenol	1.7224	1.9152 1.8101	1.8655 1.7980	1.8641 1.8374	1.7723	Ave		1.8231			0.8000	3.3		20.0			
Aniline	2.7455	2.4901 2.6053	2.5265 2.5047	2.6376 2.5027	2.4985	Ave		2.5639				3.6		20.0			
Bis(2-chloroethyl)ether	1.6877	1.9125 1.7200	1.9111 1.6678	1.9357 1.8965	1.9013	Ave		1.8291			0.7000	6.3		20.0			
n-Decane	1.6988	1.7320 1.6695	1.7234 1.5432	1.7123 1.5187	1.7097	Ave		1.6635				5.1		20.0			
2-Chlorophenol	1.3590	1.4151 1.5273	1.4404 1.4840	1.5147 1.5001	1.5472	Ave		1.4735			0.8000	4.3		20.0			
1,3-Dichlorobenzene	1.6491	1.5983 1.6943	1.6643 1.6233	1.6544 1.6486	1.6662	Ave		1.6498				1.8		20.0			
1,4-Dichlorobenzene	1.7043	1.7471 1.7015	1.6918 1.6759	1.6923 1.6784	1.7044	Ave		1.6995				1.3		20.0			
Benzyl alcohol	1.1278	0.9432 1.0823	1.0008 1.0440	1.0406 1.0714	1.0594	Ave		1.0462				5.3		20.0			
1,2-Dichlorobenzene	1.6143	1.6616 1.6341	1.6260 1.5781	1.6634 1.6171	1.6255	Ave		1.6275				1.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-327899/11 Calibration Date: 05/22/2018 10:45

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80522011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2800		0.974	1.00	-2.6	30.0
N-Nitrosodimethylamine	Ave	0.9850	0.9837		0.999	1.00	-0.1	30.0
Pyridine	Ave	0.8850	0.8585		1.94	2.00	-3.0	30.0
Benzaldehyde	Qua		1.058	0.0100	2.03	2.00	1.3	30.0
Phenol	Ave	1.823	1.822	0.8000	1.00	1.00	-0.0	30.0
Aniline	Ave	2.564	2.830		1.10	1.00	10.4	30.0
Bis(2-chloroethyl)ether	Ave	1.829	1.701	0.7000	0.930	1.00	-7.0	30.0
2-Chlorophenol	Ave	1.473	1.472	0.8000	0.999	1.00	-0.1	30.0
n-Decane	Ave	1.663	1.639		0.985	1.00	-1.5	30.0
1,3-Dichlorobenzene	Ave	1.650	1.586		0.962	1.00	-3.8	30.0
1,4-Dichlorobenzene	Ave	1.699	1.643		0.967	1.00	-3.3	30.0
Benzyl alcohol	Ave	1.046	1.068		1.02	1.00	2.1	30.0
1,2-Dichlorobenzene	Ave	1.628	1.614		0.992	1.00	-0.8	30.0
2-Methylphenol	Ave	1.464	1.474	0.7000	1.01	1.00	0.7	30.0
bis (2-chloroisopropyl) ether	Ave	2.712	2.620		0.966	1.00	-3.4	30.0
Indene	Ave	2.889	2.759		1.91	2.00	-4.5	30.0
3 & 4 Methylphenol	Ave	1.472	1.508		1.02	1.00	2.5	30.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.296	0.5000	1.01	1.00	1.3	30.0
Acetophenone	Ave	2.280	2.264	0.0100	0.993	1.00	-0.7	30.0
Hexachloroethane	Ave	0.6500	0.6276	0.3000	0.965	1.00	-3.5	30.0
Nitrobenzene	Ave	0.3936	0.3981	0.2000	1.01	1.00	1.1	30.0
Isophorone	Ave	0.7080	0.7240	0.4000	1.02	1.00	2.3	30.0
2,4-Dimethylphenol	Ave	0.3322	0.3271	0.2000	0.985	1.00	-1.5	30.0
2-Nitrophenol	Ave	0.1596	0.1618	0.1000	1.01	1.00	1.4	30.0
Benzoic acid	Lin1		0.1320		1.77	2.00	-11.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4365	0.3000	0.989	1.00	-1.1	30.0
2,4-Dichlorophenol	Ave	0.2379	0.2382	0.2000	1.00	1.00	0.1	30.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2805		0.966	1.00	-3.4	30.0
Naphthalene	Ave	1.090	1.060	0.7000	0.973	1.00	-2.7	30.0
4-Chloroaniline	Ave	0.5537	0.5781	0.0100	1.04	1.00	4.4	30.0
2,6-Dichlorophenol	Ave	0.2557	0.2582		1.01	1.00	1.0	30.0
Hexachlorobutadiene	Ave	0.1493	0.1480	0.0100	0.991	1.00	-0.9	30.0
Caprolactam	Ave	0.1077	0.1115	0.0100	2.07	2.00	3.6	30.0
4-Chloro-3-methylphenol	Ave	0.2719	0.2917	0.2000	1.07	1.00	7.3	30.0
2-Methylnaphthalene	Ave	0.7166	0.6987	0.4000	0.975	1.00	-2.5	30.0
1-Methylnaphthalene	Ave	0.6710	0.6618		0.986	1.00	-1.4	30.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3526	0.0500	1.12	1.00	12.1	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5405	0.0100	0.984	1.00	-1.6	30.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3428	0.2000	1.05	1.00	5.2	30.0
2,4,5-Trichlorophenol	Lin1		0.3566	0.2000	0.974	1.00	-2.6	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80530001.D DFTPP Injection Date: 05/30/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:30

Analysis Batch No.: 329083

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.6	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.6	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	27.9	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	9.6	
442	40.0 - 110.0% of mass 198	65.9	
443	15.0 - 24.0% of mass 442	12.9	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-329083/2	80530002.D	05/30/2018	06:54
	LCS 240-328700/19-A	80530005.D	05/30/2018	08:10
	LCSD 240-328700/20-A	80530006.D	05/30/2018	08:35
MSA-MW-24S-052318	240-96144-2	80530011.D	05/30/2018	10:39
MSA-MW-24I-052318	240-96144-3	80530012.D	05/30/2018	11:04
MSA-MW-30I-052318	240-96144-4	80530013.D	05/30/2018	11:54
	MB 240-328700/18-A	80530030.D	05/30/2018	13:09
DMW-10I-052418	240-96144-7	80530016.D	05/30/2018	13:34
MSA-MW-21I-052418	240-96144-8	80530017.D	05/30/2018	13:59
MSA-MW-21D-052418	240-96144-9	80530018.D	05/30/2018	14:24

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-329083/2 Calibration Date: 05/30/2018 06:54

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80530002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2669		0.929	1.00	-7.1	20.0
N-Nitrosodimethylamine	Ave	0.9850	1.109		1.13	1.00	12.6	20.0
Pyridine	Ave	0.8850	0.8552		1.93	2.00	-3.4	20.0
Benzaldehyde	Qua		1.205	0.0100	2.39	2.00	19.5	20.0
Phenol	Ave	1.823	1.790	0.8000	0.982	1.00	-1.8	20.0
Aniline	Ave	2.564	2.811		1.10	1.00	9.6	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.137	0.7000	1.17	1.00	16.8	20.0
n-Decane	Ave	1.663	1.761		1.06	1.00	5.9	20.0
2-Chlorophenol	Ave	1.473	1.602	0.8000	1.09	1.00	8.8	20.0
1,3-Dichlorobenzene	Ave	1.650	1.641		0.994	1.00	-0.6	20.0
1,4-Dichlorobenzene	Ave	1.699	1.723		1.01	1.00	1.4	20.0
Benzyl alcohol	Ave	1.046	1.022		0.977	1.00	-2.3	20.0
1,2-Dichlorobenzene	Ave	1.628	1.726		1.06	1.00	6.1	20.0
2-Methylphenol	Ave	1.464	1.527	0.7000	1.04	1.00	4.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.192		1.18	1.00	17.7	20.0
Indene	Ave	2.889	3.269		2.26	2.00	13.2	20.0
3 & 4 Methylphenol	Ave	1.472	1.416		0.962	1.00	-3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.453	0.5000	1.14	1.00	13.6	20.0
Acetophenone	Ave	2.280	2.500	0.0100	1.10	1.00	9.6	20.0
Hexachloroethane	Ave	0.6500	0.7038	0.3000	1.08	1.00	8.3	20.0
Nitrobenzene	Ave	0.3936	0.4268	0.2000	1.08	1.00	8.4	20.0
Isophorone	Ave	0.7080	0.7611	0.4000	1.07	1.00	7.5	20.0
2,4-Dimethylphenol	Ave	0.3322	0.2986	0.2000	0.899	1.00	-10.1	20.0
2-Nitrophenol	Ave	0.1596	0.1882	0.1000	1.18	1.00	17.9	20.0
Benzoic acid	Lin1		0.1561		2.07	2.00	3.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4650	0.3000	1.05	1.00	5.3	20.0
2,4-Dichlorophenol	Ave	0.2379	0.2060	0.2000	0.866	1.00	-13.4	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2902		0.999	1.00	-0.0	20.0
Naphthalene	Ave	1.090	1.111	0.7000	1.02	1.00	2.0	20.0
4-Chloroaniline	Ave	0.5537	0.5951	0.0100	1.07	1.00	7.5	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2530		0.989	1.00	-1.1	20.0
Hexachlorobutadiene	Ave	0.1493	0.1467	0.0100	0.983	1.00	-1.7	20.0
Caprolactam	Ave	0.1077	0.1085	0.0100	2.01	2.00	0.7	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.2981	0.2000	1.10	1.00	9.6	20.0
2-Methylnaphthalene	Ave	0.7166	0.7421	0.4000	1.04	1.00	3.6	20.0
1-Methylnaphthalene	Ave	0.6710	0.7007		1.04	1.00	4.4	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3193	0.0500	1.01	1.00	1.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5542	0.0100	1.01	1.00	0.9	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3648	0.2000	1.12	1.00	11.9	20.0
2,4,5-Trichlorophenol	Lin1		0.3559	0.2000	0.972	1.00	-2.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80531001.D DFTPP Injection Date: 05/31/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:12

Analysis Batch No.: 329293

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	46.3	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.1	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	28.0	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	73.0	
443	15.0 - 24.0% of mass 442	14.0	(19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-329293/2	80531002.D	05/31/2018	06:29
	MB 240-329092/10-A	80531003.D	05/31/2018	06:56
	LCS 240-329092/11-A	80531004.D	05/31/2018	07:20
	LCSD 240-329092/12-A	80531005.D	05/31/2018	07:45
DMW-10S-052418	240-96144-6	80531009.D	05/31/2018	09:24
MSA-MW-45S-052318	240-96144-5	80531010.D	05/31/2018	09:49
MSA-MW-33S-052518	240-96206-2	80531016.D	05/31/2018	12:18
MSA-MW-33I-052518	240-96206-3	80531017.D	05/31/2018	12:43
MSA-MW-15I-052518	240-96206-4	80531018.D	05/31/2018	13:08
MSA-MW-15D-052518	240-96206-5	80531019.D	05/31/2018	13:33

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-329293/2 Calibration Date: 05/31/2018 06:29

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80531002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2794		0.972	1.00	-2.8	20.0
N-Nitrosodimethylamine	Ave	0.9850	0.9612		0.976	1.00	-2.4	20.0
Pyridine	Ave	0.8850	0.7831		1.77	2.00	-11.5	20.0
Benzaldehyde	Qua		1.252	0.0100	2.51	2.00	25.5*	20.0
Phenol	Ave	1.823	1.307	0.8000	0.717	1.00	-28.3*	20.0
Aniline	Ave	2.564	2.936		1.15	1.00	14.5	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.043	0.7000	1.12	1.00	11.7	20.0
2-Chlorophenol	Ave	1.473	1.408	0.8000	0.956	1.00	-4.4	20.0
n-Decane	Ave	1.663	1.656		0.995	1.00	-0.5	20.0
1,3-Dichlorobenzene	Ave	1.650	1.613		0.977	1.00	-2.3	20.0
1,4-Dichlorobenzene	Ave	1.699	1.696		0.998	1.00	-0.2	20.0
Benzyl alcohol	Ave	1.046	1.060		1.01	1.00	1.3	20.0
1,2-Dichlorobenzene	Ave	1.628	1.728		1.06	1.00	6.2	20.0
2-Methylphenol	Ave	1.464	1.358	0.7000	0.927	1.00	-7.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.442		1.27	1.00	26.9*	20.0
Indene	Ave	2.889	3.375		2.34	2.00	16.9	20.0
3 & 4 Methylphenol	Ave	1.472	1.476		1.00	1.00	0.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.584	0.5000	1.24	1.00	23.8*	20.0
Acetophenone	Ave	2.280	2.783	0.0100	1.22	1.00	22.1*	20.0
Hexachloroethane	Ave	0.6500	0.6931	0.3000	1.07	1.00	6.6	20.0
Nitrobenzene	Ave	0.3936	0.4196	0.2000	1.07	1.00	6.6	20.0
Isophorone	Ave	0.7080	0.7444	0.4000	1.05	1.00	5.1	20.0
2,4-Dimethylphenol	Ave	0.3322	0.3489	0.2000	1.05	1.00	5.0	20.0
2-Nitrophenol	Ave	0.1596	0.1989	0.1000	1.25	1.00	24.6*	20.0
Benzoic acid	Lin1		0.1740		2.29	2.00	14.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4639	0.3000	1.05	1.00	5.1	20.0
2,4-Dichlorophenol	Ave	0.2379	0.2355	0.2000	0.990	1.00	-1.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2828		0.974	1.00	-2.6	20.0
Naphthalene	Ave	1.090	1.115	0.7000	1.02	1.00	2.3	20.0
4-Chloroaniline	Ave	0.5537	0.5949	0.0100	1.07	1.00	7.4	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2790		1.09	1.00	9.1	20.0
Hexachlorobutadiene	Ave	0.1493	0.1490	0.0100	0.998	1.00	-0.2	20.0
Caprolactam	Ave	0.1077	0.1142	0.0100	2.12	2.00	6.1	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.3071	0.2000	1.13	1.00	12.9	20.0
2-Methylnaphthalene	Ave	0.7166	0.7329	0.4000	1.02	1.00	2.3	20.0
1-Methylnaphthalene	Ave	0.6710	0.6915		1.03	1.00	3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3381	0.0500	1.07	1.00	7.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5712	0.0100	1.04	1.00	4.0	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3740	0.2000	1.15	1.00	14.7	20.0
2,4,5-Trichlorophenol	Lin1		0.3817	0.2000	1.04	1.00	4.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80601001.D DFTPP Injection Date: 06/01/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:09

Analysis Batch No.: 329484

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.3	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.7	
70	Less than 2.0% of mass 69	0.3	(0.6) 1
127	25.0 - 75.0% of mass 198	53.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	73.2	
443	15.0 - 24.0% of mass 442	13.8	(18.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-329484/2	80601002.D	06/01/2018	06:27
	MB 240-329317/15-A	80601003.D	06/01/2018	06:52
	LCS 240-329317/16-A	80601004.D	06/01/2018	07:17
	LCSD 240-329317/17-A	80601005.D	06/01/2018	07:41
MSA-MW-3-052918	240-96257-2	80601025.D	06/01/2018	15:57

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-329484/2 | Calibration Date: 06/01/2018 06:27

Instrument ID: A4AG2 | Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 05/22/2018 10:20

Lab File ID: 80601002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.2977		1.04	1.00	3.6	20.0
N-Nitrosodimethylamine	Ave	0.9850	1.001		1.02	1.00	1.6	20.0
Pyridine	Ave	0.8850	0.8971		2.03	2.00	1.4	20.0
Benzaldehyde	Qua		1.178	0.0100	2.32	2.00	16.0	20.0
Phenol	Ave	1.823	1.567	0.8000	0.859	1.00	-14.1	20.0
Aniline	Ave	2.564	2.608		1.02	1.00	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.194	0.7000	1.20	1.00	19.9	20.0
n-Decane	Ave	1.663	1.735		1.04	1.00	4.3	20.0
2-Chlorophenol	Ave	1.473	1.497	0.8000	1.02	1.00	1.6	20.0
1,3-Dichlorobenzene	Ave	1.650	1.660		1.01	1.00	0.6	20.0
1,4-Dichlorobenzene	Ave	1.699	1.710		1.01	1.00	0.6	20.0
Benzyl alcohol	Ave	1.046	0.9272		0.886	1.00	-11.4	20.0
1,2-Dichlorobenzene	Ave	1.628	1.670		1.03	1.00	2.6	20.0
2-Methylphenol	Ave	1.464	1.402	0.7000	0.957	1.00	-4.3	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.091		1.14	1.00	13.9	20.0
Indene	Ave	2.889	3.214		2.23	2.00	11.3	20.0
3 & 4 Methylphenol	Ave	1.472	1.213		0.824	1.00	-17.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.413	0.5000	1.10	1.00	10.5	20.0
Acetophenone	Ave	2.280	2.493	0.0100	1.09	1.00	9.3	20.0
Hexachloroethane	Ave	0.6500	0.6815	0.3000	1.05	1.00	4.9	20.0
Nitrobenzene	Ave	0.3936	0.4165	0.2000	1.06	1.00	5.8	20.0
Isophorone	Ave	0.7080	0.7429	0.4000	1.05	1.00	4.9	20.0
2,4-Dimethylphenol	Ave	0.3322	0.2733	0.2000	0.823	1.00	-17.7	20.0
2-Nitrophenol	Ave	0.1596	0.1961	0.1000	1.23	1.00	22.9*	20.0
Benzoic acid	Lin1		0.1478		1.97	2.00	-1.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4539	0.3000	1.03	1.00	2.8	20.0
2,4-Dichlorophenol	Ave	0.2379	0.1846*	0.2000	0.776	1.00	-22.4*	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2894		0.997	1.00	-0.3	20.0
Naphthalene	Ave	1.090	1.111	0.7000	1.02	1.00	1.9	20.0
4-Chloroaniline	Ave	0.5537	0.5841	0.0100	1.05	1.00	5.5	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2569		1.00	1.00	0.5	20.0
Hexachlorobutadiene	Ave	0.1493	0.1542	0.0100	1.03	1.00	3.3	20.0
Caprolactam	Ave	0.1077	0.1125	0.0100	2.09	2.00	4.5	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.3095	0.2000	1.14	1.00	13.8	20.0
2-Methylnaphthalene	Ave	0.7166	0.7370	0.4000	1.03	1.00	2.8	20.0
1-Methylnaphthalene	Ave	0.6710	0.6920		1.03	1.00	3.1	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3376	0.0500	1.07	1.00	7.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5597	0.0100	1.02	1.00	1.9	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3748	0.2000	1.15	1.00	15.0	20.0
2,4,5-Trichlorophenol	Lin1		0.3681	0.2000	1.00	1.00	0.4	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80604001.D DFTPP Injection Date: 06/04/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:11

Analysis Batch No.: 329813

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.2	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.2	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	72.7	
443	15.0 - 24.0% of mass 442	14.0	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-329813/2	80604002.D	06/04/2018	06:28
MSA-MW-54I-052918	240-96257-3	80604004.D	06/04/2018	07:20
MSA-MW-54S-052918	240-96257-4	80604005.D	06/04/2018	07:44

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-329813/2 Calibration Date: 06/04/2018 06:28

Instrument ID: A4AG2 Calib Start Date: 05/22/2018 07:02

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 05/22/2018 10:20

Lab File ID: 80604002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2874	0.3001		1.04	1.00	4.4	20.0
N-Nitrosodimethylamine	Ave	0.9850	0.9149		0.929	1.00	-7.1	20.0
Pyridine	Ave	0.8850	0.8780		1.98	2.00	-0.8	20.0
Benzaldehyde	Qua		1.343	0.0100	2.75	2.00	37.6*	20.0
Phenol	Ave	1.823	1.810	0.8000	0.993	1.00	-0.7	20.0
Aniline	Ave	2.564	3.081		1.20	1.00	20.2*	20.0
Bis(2-chloroethyl)ether	Ave	1.829	2.252	0.7000	1.23	1.00	23.1*	20.0
n-Decane	Ave	1.663	1.706		1.03	1.00	2.5	20.0
2-Chlorophenol	Ave	1.473	1.594	0.8000	1.08	1.00	8.2	20.0
1,3-Dichlorobenzene	Ave	1.650	1.640		0.994	1.00	-0.6	20.0
1,4-Dichlorobenzene	Ave	1.699	1.715		1.01	1.00	0.9	20.0
Benzyl alcohol	Ave	1.046	1.024		0.978	1.00	-2.2	20.0
1,2-Dichlorobenzene	Ave	1.628	1.760		1.08	1.00	8.1	20.0
2-Methylphenol	Ave	1.464	1.339	0.7000	0.915	1.00	-8.5	20.0
bis (2-chloroisopropyl) ether	Ave	2.712	3.643		1.34	1.00	34.3*	20.0
Indene	Ave	2.889	3.498		2.42	2.00	21.1*	20.0
3 & 4 Methylphenol	Ave	1.472	1.233		0.838	1.00	-16.2	20.0
N-Nitrosodi-n-propylamine	Ave	1.279	1.671	0.5000	1.31	1.00	30.7*	20.0
Acetophenone	Ave	2.280	2.909	0.0100	1.28	1.00	27.6*	20.0
Hexachloroethane	Ave	0.6500	0.7018	0.3000	1.08	1.00	8.0	20.0
Nitrobenzene	Ave	0.3936	0.4151	0.2000	1.05	1.00	5.5	20.0
Isophorone	Ave	0.7080	0.7314	0.4000	1.03	1.00	3.3	20.0
2,4-Dimethylphenol	Ave	0.3322	0.3206	0.2000	0.965	1.00	-3.5	20.0
2-Nitrophenol	Ave	0.1596	0.1934	0.1000	1.21	1.00	21.2*	20.0
Benzoic acid	Lin1		0.1428		1.90	2.00	-4.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4416	0.4510	0.3000	1.02	1.00	2.1	20.0
2,4-Dichlorophenol	Ave	0.2379	0.2095	0.2000	0.880	1.00	-12.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2904	0.2908		1.00	1.00	0.2	20.0
Naphthalene	Ave	1.090	1.101	0.7000	1.01	1.00	1.0	20.0
4-Chloroaniline	Ave	0.5537	0.5893	0.0100	1.06	1.00	6.4	20.0
2,6-Dichlorophenol	Ave	0.2557	0.2643		1.03	1.00	3.4	20.0
Hexachlorobutadiene	Ave	0.1493	0.1529	0.0100	1.02	1.00	2.4	20.0
Caprolactam	Ave	0.1077	0.1126	0.0100	2.09	2.00	4.6	20.0
4-Chloro-3-methylphenol	Ave	0.2719	0.3057	0.2000	1.12	1.00	12.4	20.0
2-Methylnaphthalene	Ave	0.7166	0.7305	0.4000	1.02	1.00	1.9	20.0
1-Methylnaphthalene	Ave	0.6710	0.6889		1.03	1.00	2.7	20.0
Hexachlorocyclopentadiene	Ave	0.3146	0.3332	0.0500	1.06	1.00	5.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5492	0.5592	0.0100	1.02	1.00	1.8	20.0
2,4,6-Trichlorophenol	Ave	0.3260	0.3773	0.2000	1.16	1.00	15.7	20.0
2,4,5-Trichlorophenol	Lin1		0.3810	0.2000	1.04	1.00	3.8	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80605001.D DFTPP Injection Date: 06/05/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:56

Analysis Batch No.: 330024

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	52.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	46.9	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	56.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	28.5	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.3	
442	40.0 - 110.0% of mass 198	71.2	
443	15.0 - 24.0% of mass 442	13.8	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-330024/2	80605002.D	06/05/2018	07:13
	STD8 240-330024/3	80605003.D	06/05/2018	07:38
	STD7 240-330024/4	80605004.D	06/05/2018	08:02
	STD6 240-330024/5	80605005.D	06/05/2018	08:27
	STD5 240-330024/6	80605006.D	06/05/2018	08:52
	STD4 240-330024/7	80605007.D	06/05/2018	09:16
	STD3 240-330024/8	80605008.D	06/05/2018	09:41
	STD2 240-330024/9	80605009.D	06/05/2018	10:06
	STD1 240-330024/10	80605010.D	06/05/2018	10:30
	ICV 240-330024/11	80605011.D	06/05/2018	10:55
	MB 240-329507/7-A	80605021.D	06/05/2018	15:00
	LCS 240-329507/8-A	80605022.D	06/05/2018	15:25
DMW-1S-053018	240-96362-2	80605026.D	06/05/2018	17:03
DMW-1B-053018	240-96362-4	80605028.D	06/05/2018	17:52
MSA-MW-19D-053018	240-96362-5	80605029.D	06/05/2018	18:17

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-330024/10	80605010.D
Level 2	STD2 240-330024/9	80605009.D
Level 3	STD3 240-330024/8	80605008.D
Level 4	STD4 240-330024/7	80605007.D
Level 5	STD5 240-330024/6	80605006.D
Level 6	STD6 240-330024/5	80605005.D
Level 7	STD7 240-330024/4	80605004.D
Level 8	STD8 240-330024/3	80605003.D
Level 9	STD9 240-330024/2	80605002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2300	0.3049 0.2330	0.2667 0.2272	0.2367 0.2335	0.2125	Ave		0.2431				12.0		20.0			
N-Nitrosodimethylamine	0.9564	0.8551 1.0177	0.8513 1.0235	0.8483 1.0649	0.9599	Ave		0.9471				9.1		20.0			
Pyridine	0.6888 0.6969	0.6957 0.7395	0.6822 0.7900	0.6290 0.7759	0.6342	Ave		0.7036				8.0		20.0			
Benzaldehyde	+++++ 1.2335	1.7208 1.0785	1.7153 0.9292	1.7443 +++++	1.4428	Qua	61.042	1.5133	-0.000150		0.0100				1.0000		0.9900
Phenol	1.5638	1.8833 1.4513	1.9101 1.3631	1.8912 1.4361	1.5502	Ave		1.6311			0.8000	13.9		20.0			
Aniline	2.8290	2.7390 2.7274	3.0750 2.6112	3.2696 2.7277	2.8594	Ave		2.8548				7.6		20.0			
Bis(2-chloroethyl)ether	2.0280	2.2913 1.9737	2.2688 1.8819	2.2296 2.0009	2.0283	Ave		2.0878			0.7000	7.3		20.0			
2-Chlorophenol	1.5474	1.5429 1.4534	1.5017 1.4612	1.6189 1.5155	1.5222	Ave		1.5204			0.8000	3.5		20.0			
n-Decane	1.7060	1.7465 1.7523	1.6794 1.7329	1.6595 1.6998	1.7530	Ave		1.7162				2.1		20.0			
1,3-Dichlorobenzene	1.5913	1.5771 1.6438	1.6017 1.6614	1.5942 1.6593	1.6107	Ave		1.6174				2.0		20.0			
1,4-Dichlorobenzene	1.6894	1.7149 1.7118	1.6818 1.7049	1.6518 1.7077	1.6677	Ave		1.6912				1.3		20.0			
Benzyl alcohol	1.0791	1.1514 1.1617	1.2094 1.1221	1.1302 1.2001	0.9040	Ave		1.1197				8.6		20.0			
1,2-Dichlorobenzene	1.7149	1.8066 1.7267	1.7169 1.6824	1.7353 1.7265	1.7196	Ave		1.7286				2.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-330024/11 Calibration Date: 06/05/2018 10:55

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80605011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2516		1.04	1.00	3.5	30.0
N-Nitrosodimethylamine	Ave	0.9471	0.9580		1.01	1.00	1.1	30.0
Pyridine	Ave	0.7036	0.7317		2.08	2.00	4.0	30.0
Benzaldehyde	Qua		1.232	0.0100	1.98	2.00	-1.2	30.0
Phenol	Ave	1.631	1.547	0.8000	0.949	1.00	-5.1	30.0
Aniline	Ave	2.855	2.801		0.981	1.00	-1.9	30.0
Bis(2-chloroethyl)ether	Ave	2.088	1.981	0.7000	0.949	1.00	-5.1	30.0
2-Chlorophenol	Ave	1.520	1.461	0.8000	0.961	1.00	-3.9	30.0
n-Decane	Ave	1.716	1.787		1.04	1.00	4.1	30.0
1,3-Dichlorobenzene	Ave	1.617	1.570		0.970	1.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	1.691	1.655		0.978	1.00	-2.2	30.0
Benzyl alcohol	Ave	1.120	1.033		0.923	1.00	-7.7	30.0
1,2-Dichlorobenzene	Ave	1.729	1.684		0.974	1.00	-2.6	30.0
2-Methylphenol	Ave	1.524	1.369	0.7000	0.898	1.00	-10.2	30.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.206		0.903	1.00	-9.7	30.0
Indene	Ave	3.341	3.152		1.89	2.00	-5.6	30.0
3 & 4 Methylphenol	Ave	1.458	1.140		0.782	1.00	-21.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.577	0.5000	0.978	1.00	-2.2	30.0
Acetophenone	Ave	2.746	2.651	0.0100	0.966	1.00	-3.4	30.0
Hexachloroethane	Ave	0.6941	0.6853	0.3000	0.987	1.00	-1.3	30.0
Nitrobenzene	Ave	0.4254	0.4235	0.2000	0.995	1.00	-0.5	30.0
Isophorone	Ave	0.7295	0.7499	0.4000	1.03	1.00	2.8	30.0
2,4-Dimethylphenol	Ave	0.3171	0.3010	0.2000	0.949	1.00	-5.1	30.0
2-Nitrophenol	Ave	0.1879	0.1872	0.1000	0.996	1.00	-0.4	30.0
Benzoic acid	Lin1		0.1511		1.71	2.00	-14.3	30.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4495	0.3000	0.970	1.00	-3.0	30.0
2,4-Dichlorophenol	Ave	0.1997	0.1925*	0.2000	0.963	1.00	-3.7	30.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2773		0.959	1.00	-4.1	30.0
Naphthalene	Ave	1.103	1.077	0.7000	0.977	1.00	-2.3	30.0
4-Chloroaniline	Ave	0.5443	0.5866	0.0100	1.08	1.00	7.8	30.0
2,6-Dichlorophenol	Ave	0.2543	0.2577		1.01	1.00	1.3	30.0
Hexachlorobutadiene	Ave	0.1501	0.1506	0.0100	1.00	1.00	0.3	30.0
Caprolactam	Ave	0.1127	0.1046	0.0100	1.86	2.00	-7.2	30.0
4-Chloro-3-methylphenol	Lin1		0.3012	0.2000	0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.7257	0.7204	0.4000	0.993	1.00	-0.7	30.0
1-Methylnaphthalene	Ave	0.6792	0.6761		0.995	1.00	-0.5	30.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3625	0.0500	1.08	1.00	8.1	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5593	0.0100	1.01	1.00	0.8	30.0
2,4,6-Trichlorophenol	Lin1		0.3721	0.2000	0.944	1.00	-5.6	30.0
2,4,5-Trichlorophenol	Lin1		0.3824	0.2000	0.965	1.00	-3.5	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80606001.D DFTPP Injection Date: 06/06/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:55

Analysis Batch No.: 330212

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	50.3	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	45.2	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.8	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	10.7	
442	40.0 - 110.0% of mass 198	72.2	
443	15.0 - 24.0% of mass 442	13.7	(19.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-330212/2	80606002.D	06/06/2018	07:14
	STD6 240-330212/3	80606003.D	06/06/2018	07:40
MSA-MW-19D-053018 MS	240-96362-5 MS	80606009.D	06/06/2018	10:07
MSA-MW-19D-053018 MSD	240-96362-5 MSD	80606010.D	06/06/2018	10:31

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-330212/2 Calibration Date: 06/06/2018 07:14

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80606002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2495		1.03	1.00	2.7	20.0
N-Nitrosodimethylamine	Ave	0.9471	0.8829		0.932	1.00	-6.8	20.0
Pyridine	Ave	0.7036	0.6989		1.99	2.00	-0.7	20.0
Benzaldehyde	Qua		1.228	0.0100	1.97	2.00	-1.6	20.0
Phenol	Ave	1.631	1.388	0.8000	0.851	1.00	-14.9	20.0
Aniline	Ave	2.855	2.973		1.04	1.00	4.1	20.0
Bis(2-chloroethyl)ether	Ave	2.088	2.138	0.7000	1.02	1.00	2.4	20.0
2-Chlorophenol	Ave	1.520	1.473	0.8000	0.969	1.00	-3.1	20.0
n-Decane	Ave	1.716	1.620		0.944	1.00	-5.6	20.0
1,3-Dichlorobenzene	Ave	1.617	1.558		0.963	1.00	-3.7	20.0
1,4-Dichlorobenzene	Ave	1.691	1.636		0.968	1.00	-3.2	20.0
Benzyl alcohol	Ave	1.120	1.230		1.10	1.00	9.9	20.0
1,2-Dichlorobenzene	Ave	1.729	1.725		0.998	1.00	-0.2	20.0
2-Methylphenol	Ave	1.524	1.464	0.7000	0.961	1.00	-3.9	20.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.572		1.01	1.00	0.6	20.0
Indene	Ave	3.341	3.425		2.05	2.00	2.5	20.0
3 & 4 Methylphenol	Ave	1.458	1.562		1.07	1.00	7.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.718	0.5000	1.07	1.00	6.6	20.0
Acetophenone	Ave	2.746	2.944	0.0100	1.07	1.00	7.2	20.0
Hexachloroethane	Ave	0.6941	0.6852	0.3000	0.987	1.00	-1.3	20.0
Nitrobenzene	Ave	0.4254	0.4268	0.2000	1.00	1.00	0.3	20.0
Isophorone	Ave	0.7295	0.7663	0.4000	1.05	1.00	5.0	20.0
2,4-Dimethylphenol	Ave	0.3171	0.3456	0.2000	1.09	1.00	9.0	20.0
2-Nitrophenol	Ave	0.1879	0.2016	0.1000	1.07	1.00	7.3	20.0
Benzoic acid	Lin1		0.1901		2.10	2.00	5.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4638	0.3000	1.00	1.00	0.0	20.0
2,4-Dichlorophenol	Ave	0.1997	0.2389	0.2000	1.20	1.00	19.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2774		0.959	1.00	-4.1	20.0
Naphthalene	Ave	1.103	1.115	0.7000	1.01	1.00	1.2	20.0
4-Chloroaniline	Ave	0.5443	0.6021	0.0100	1.11	1.00	10.6	20.0
2,6-Dichlorophenol	Ave	0.2543	0.2750		1.08	1.00	8.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1510	0.0100	1.01	1.00	0.6	20.0
Caprolactam	Ave	0.1127	0.1188	0.0100	2.11	2.00	5.4	20.0
4-Chloro-3-methylphenol	Lin1		0.3130	0.2000	1.03	1.00	2.5	20.0
2-Methylnaphthalene	Ave	0.7257	0.7452	0.4000	1.03	1.00	2.7	20.0
1-Methylnaphthalene	Ave	0.6792	0.6990		1.03	1.00	2.9	20.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3616	0.0500	1.08	1.00	7.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5823	0.0100	1.05	1.00	5.0	20.0
2,4,6-Trichlorophenol	Lin1		0.3839	0.2000	0.973	1.00	-2.7	20.0
2,4,5-Trichlorophenol	Lin1		0.3953	0.2000	0.995	1.00	-0.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab File ID: 80607001.D DFTPP Injection Date: 06/07/2018

Instrument ID: A4AG2 DFTPP Injection Time: 08:01

Analysis Batch No.: 330413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	45.0	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	29.0	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	75.1	
443	15.0 - 24.0% of mass 442	14.4	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-330413/2	80607002.D	06/07/2018	08:18
	MB 240-330216/6-A	80607003.D	06/07/2018	08:43
	LCS 240-330216/7-A	80607004.D	06/07/2018	09:07
DMW-1A-053018	240-96362-3	80607014.D	06/07/2018	13:13

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Lab Sample ID: STD6 240-330413/2 | Calibration Date: 06/07/2018 08:18

Instrument ID: A4AG2 | Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 06/05/2018 10:30

Lab File ID: 80607002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2787		1.15	1.00	14.7	20.0
N-Nitrosodimethylamine	Ave	0.9471	0.9829		1.04	1.00	3.8	20.0
Pyridine	Ave	0.7036	0.8278		2.35	2.00	17.6	20.0
Benzaldehyde	Qua		1.235	0.0100	1.98	2.00	-0.8	20.0
Phenol	Ave	1.631	1.336	0.8000	0.819	1.00	-18.1	20.0
Aniline	Ave	2.855	2.466		0.864	1.00	-13.6	20.0
Bis(2-chloroethyl)ether	Ave	2.088	2.078	0.7000	0.995	1.00	-0.5	20.0
2-Chlorophenol	Ave	1.520	1.451	0.8000	0.955	1.00	-4.5	20.0
n-Decane	Ave	1.716	1.771		1.03	1.00	3.2	20.0
1,3-Dichlorobenzene	Ave	1.617	1.629		1.01	1.00	0.7	20.0
1,4-Dichlorobenzene	Ave	1.691	1.684		0.996	1.00	-0.4	20.0
Benzyl alcohol	Ave	1.120	1.013		0.905	1.00	-9.5	20.0
1,2-Dichlorobenzene	Ave	1.729	1.687		0.976	1.00	-2.4	20.0
2-Methylphenol	Ave	1.524	1.189	0.7000	0.780	1.00	-22.0*	20.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.297		0.929	1.00	-7.1	20.0
Indene	Ave	3.341	3.256		1.95	2.00	-2.5	20.0
3 & 4 Methylphenol	Ave	1.458	1.161		0.796	1.00	-20.4*	20.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.528	0.5000	0.948	1.00	-5.2	20.0
Acetophenone	Ave	2.746	2.718	0.0100	0.990	1.00	-1.0	20.0
Hexachloroethane	Ave	0.6941	0.6817	0.3000	0.982	1.00	-1.8	20.0
Nitrobenzene	Ave	0.4254	0.4235	0.2000	0.996	1.00	-0.4	20.0
Isophorone	Ave	0.7295	0.7383	0.4000	1.01	1.00	1.2	20.0
2,4-Dimethylphenol	Ave	0.3171	0.3129	0.2000	0.987	1.00	-1.3	20.0
2-Nitrophenol	Ave	0.1879	0.2005	0.1000	1.07	1.00	6.7	20.0
Benzoic acid	Lin1		0.1892		2.09	2.00	4.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4523	0.3000	0.976	1.00	-2.4	20.0
2,4-Dichlorophenol	Ave	0.1997	0.2049	0.2000	1.03	1.00	2.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2818		0.974	1.00	-2.6	20.0
Naphthalene	Ave	1.103	1.102	0.7000	1.00	1.00	-0.0	20.0
4-Chloroaniline	Ave	0.5443	0.5908	0.0100	1.09	1.00	8.5	20.0
2,6-Dichlorophenol	Ave	0.2543	0.2668		1.05	1.00	4.9	20.0
Hexachlorobutadiene	Ave	0.1501	0.1514	0.0100	1.01	1.00	0.8	20.0
Caprolactam	Ave	0.1127	0.1183	0.0100	2.10	2.00	4.9	20.0
4-Chloro-3-methylphenol	Lin1		0.3015	0.2000	0.989	1.00	-1.1	20.0
2-Methylnaphthalene	Ave	0.7257	0.7330	0.4000	1.01	1.00	1.0	20.0
1-Methylnaphthalene	Ave	0.6792	0.6905		1.02	1.00	1.7	20.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3649	0.0500	1.09	1.00	8.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5838	0.0100	1.05	1.00	5.3	20.0
2,4,6-Trichlorophenol	Lin1		0.3956	0.2000	1.00	1.00	0.1	20.0
2,4,5-Trichlorophenol	Lin1		0.3977	0.2000	1.00	1.00	0.1	20.0

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328700 Batch Start Date: 05/26/18 07:27 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-96144-H-2	MSA-MW-24S-052318	3510C, 8270D	T	260 mL	5 mL	4 SU	2 SU		
240-96144-F-3	MSA-MW-24I-052318	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-96144-D-4	MSA-MW-30I-052318	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-96144-G-5	MSA-MW-45S-052318	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96144-H-6	DMW-10S-052418	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96144-D-7	DMW-10I-052418	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96144-E-8	MSA-MW-21I-052418	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-96144-D-9	MSA-MW-21D-052418	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
MB 240-328700/18		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-328700/19		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
LCSD 240-328700/20		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
240-96144-H-2	MSA-MW-24S-052318	3510C, 8270D	T	0.4 mL					
240-96144-F-3	MSA-MW-24I-052318	3510C, 8270D	T	0.4 mL					
240-96144-D-4	MSA-MW-30I-052318	3510C, 8270D	T	0.4 mL					
240-96144-G-5	MSA-MW-45S-052318	3510C, 8270D	T	0.4 mL					
240-96144-H-6	DMW-10S-052418	3510C, 8270D	T	0.4 mL					
240-96144-D-7	DMW-10I-052418	3510C, 8270D	T	0.4 mL					
240-96144-E-8	MSA-MW-21I-052418	3510C, 8270D	T	0.4 mL					
240-96144-D-9	MSA-MW-21D-052418	3510C, 8270D	T	0.4 mL					
MB 240-328700/18		3510C, 8270D		0.4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328700 Batch Start Date: 05/26/18 07:27 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
LCS 240-328700/19		3510C, 8270D		0.4 mL					
LCSD 240-328700/20		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580755
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329092 Batch Start Date: 05/30/18 06:40 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBNASPIKE 00087	exBNASURR W 00061
240-96206-F-2	MSA-MW-33S-052518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		0.4 mL
240-96206-E-3	MSA-MW-33I-052518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		0.4 mL
240-96206-F-4	MSA-MW-15I-052518	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		0.4 mL
240-96206-E-5	MSA-MW-15D-052518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		0.4 mL
MB 240-329092/10		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		0.4 mL
LCS 240-329092/11		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.4 mL	0.4 mL
LCSD 240-329092/12		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.4 mL	0.4 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	STEVEEARLE BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580755

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329317 Batch Start Date: 05/31/18 07:50 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-96257-I-2	MSA-MW-3-052918	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-96257-D-3	MSA-MW-54I-052918	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-96257-H-4	MSA-MW-54S-052918	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
MB 240-329317/15		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-329317/16		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
LCSD 240-329317/17		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
240-96257-I-2	MSA-MW-3-052918	3510C, 8270D	T	0.4 mL					
240-96257-D-3	MSA-MW-54I-052918	3510C, 8270D	T	0.4 mL					
240-96257-H-4	MSA-MW-54S-052918	3510C, 8270D	T	0.4 mL					
MB 240-329317/15		3510C, 8270D		0.4 mL					
LCS 240-329317/16		3510C, 8270D		0.4 mL					
LCSD 240-329317/17		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580755
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329317 Batch Start Date: 05/31/18 07:50 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329507 Batch Start Date: 06/01/18 06:35 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
240-96362-F-2	DMW-1S-053018	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-96362-E-4	DMW-1B-053018	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-96362-M-5	MSA-MW-19D-053018	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
240-96362-L-5 MS	MSA-MW-19D-053018	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU	0.2 mL	0.4 mL
240-96362-J-5 MSD	MSA-MW-19D-053018	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU	0.2 mL	0.4 mL
MB 240-329507/7		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-329507/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
240-96362-F-2	DMW-1S-053018	3510C, 8270D	T	0.4 mL					
240-96362-E-4	DMW-1B-053018	3510C, 8270D	T	0.4 mL					
240-96362-M-5	MSA-MW-19D-053018	3510C, 8270D	T	0.4 mL					
240-96362-L-5 MS	MSA-MW-19D-053018	3510C, 8270D	T	0.4 mL					
240-96362-J-5 MSD	MSA-MW-19D-053018	3510C, 8270D	T	0.4 mL					
MB 240-329507/7		3510C, 8270D		0.4 mL					
LCS 240-329507/8		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE STEVEEARLE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580755

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329507 Batch Start Date: 06/01/18 06:35 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330216 Batch Start Date: 06/06/18 06:38 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00054	exBNASPIKE 00087
MB 240-330216/6		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-330216/7		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
240-96362-D-3	DMW-1A-053018	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00061					
MB 240-330216/6		3510C, 8270D		0.4 mL					
LCS 240-330216/7		3510C, 8270D		0.4 mL					
240-96362-D-3	DMW-1A-053018	3510C, 8270D	T	0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE STEVEEARLE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3580755

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW-24S-052318	240-96144-2	74
MSA-MW-45S-052318	240-96144-5	88
DMW-10S-052418	240-96144-6	91
MSA-MW-33S-052518	240-96206-2	72
MSA-MW-3-052918	240-96257-2	87
MSA-MW-54S-052918	240-96257-4	87
DMW-1S-053018	240-96362-2	90
	MB 240-329068/16	67
	MB 240-329505/17	82
	MB 240-329811/22	74
	LCS 240-329068/17	77
	LCS 240-329505/18	95
	LCS 240-329811/23	85
MSA-MW-33S-052518 MS	240-96206-2 MS	80
MSA-MW-33S-052518 MSD	240-96206-2 MSD	76

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-329068/16

Matrix: Water Date Extracted: 05/30/2018 15:26

Lab File ID:(1) A0053016.D Lab File ID:(2)

Date Analyzed:(1) 05/30/2018 15:26 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
MSA-MW-24S-052318	240-96144-2	05/30/2018 00:00	
	LCS 240-329068/17	05/30/2018 16:07	
MSA-MW-33S-052518	240-96206-2	05/31/2018 02:30	
MSA-MW-33S-052518 MS	240-96206-2 MS	05/31/2018 03:08	
MSA-MW-33S-052518 MSD	240-96206-2 MSD	05/31/2018 03:46	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329068/16

Matrix: Water | Lab File ID: A0053016.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/30/2018 15:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329068 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	67		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0053017.D

Lab ID: LCS 240-329068/17 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	835	104	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0053034.D

Lab ID: 240-96206-2 MS Client ID: MSA-MW-33S-052518 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	460	1250	98	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0053035.D

Lab ID: 240-96206-2 MSD Client ID: MSA-MW-33S-052518 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	1260	99	1	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-329505/17

Matrix: Water Date Extracted: 06/01/2018 18:41

Lab File ID:(1) A0060117.D Lab File ID:(2)

Date Analyzed:(1) 06/01/2018 18:41 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329505/18	06/01/2018 19:19	
MSA-MW-45S-052318	240-96144-5	06/01/2018 21:50	
DMW-10S-052418	240-96144-6	06/01/2018 22:27	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-329505/17

Matrix: Water Lab File ID: A0060117.D

Analysis Method: 8015C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/01/2018 18:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 329505 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0060118.D

Lab ID: LCS 240-329505/18 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	899	112	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-329811/22

Matrix: Water Date Extracted: 06/04/2018 18:51

Lab File ID:(1) A0060422.D Lab File ID:(2)

Date Analyzed:(1) 06/04/2018 18:51 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329811/23	06/04/2018 19:28	
MSA-MW-3-052918	240-96257-2	06/04/2018 22:35	
MSA-MW-54S-052918	240-96257-4	06/04/2018 23:12	
DMW-1S-053018	240-96362-2	06/04/2018 23:48	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329811/22

Matrix: Water | Lab File ID: A0060422.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 18:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	74		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0060423.D

Lab ID: LCS 240-329811/23 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	819	102	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: AFID Start Date: 04/18/2018 08:10

Analysis Batch Number: 322909 End Date: 04/18/2018 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-322909/4 IC		04/18/2018 08:10	1	A0041804.D	RTX-VRX 0.45(mm)
STD2 240-322909/5 IC		04/18/2018 08:47	1	A0041805.D	RTX-VRX 0.45(mm)
STD3 240-322909/6 IC		04/18/2018 09:24	1	A0041806.D	RTX-VRX 0.45(mm)
STD4 240-322909/7 ICRT		04/18/2018 10:02	1	A0041807.D	RTX-VRX 0.45(mm)
STD5 240-322909/8 IC		04/18/2018 10:39	1	A0041808.D	RTX-VRX 0.45(mm)
STD6 240-322909/9 IC		04/18/2018 11:17	1	A0041809.D	RTX-VRX 0.45(mm)
STD7 240-322909/10 IC		04/18/2018 11:54	1	A0041810.D	RTX-VRX 0.45(mm)
STD8 240-322909/11 IC		04/18/2018 12:32	1	A0041811.D	RTX-VRX 0.45(mm)
ICV 240-322909/12		04/18/2018 13:09	1	A0041812.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: AFID Start Date: 05/30/2018 00:00

Analysis Batch Number: 329068 End Date: 05/31/2018 04:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
240-96144-2		05/30/2018 00:00	1	A0053029.D	RTX-VRX 0.45(mm)
CCVRT 240-329068/4		05/30/2018 06:50	1	A0053004.D	RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 07:27	1		RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 08:05	1		RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 08:43	1		RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 09:22	1		RTX-VRX 0.45(mm)
CCV 240-329068/9		05/30/2018 10:46	1	A0053009.D	RTX-VRX 0.45(mm)
CCV 240-329068/15		05/30/2018 14:46	1	A0053015.D	RTX-VRX 0.45(mm)
MB 240-329068/16		05/30/2018 15:26	1	A0053016.D	RTX-VRX 0.45(mm)
LCS 240-329068/17		05/30/2018 16:07	1	A0053017.D	RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 18:09	1		RTX-VRX 0.45(mm)
CCV 240-329068/25		05/30/2018 21:28	1	A0053025.D	RTX-VRX 0.45(mm)
ZZZZZ		05/30/2018 23:22	1		RTX-VRX 0.45(mm)
ZZZZZ		05/31/2018 00:37	1		RTX-VRX 0.45(mm)
ZZZZZ		05/31/2018 01:15	1		RTX-VRX 0.45(mm)
240-96206-2		05/31/2018 02:30	1	A0053033.D	RTX-VRX 0.45(mm)
240-96206-2 MS		05/31/2018 03:08	1	A0053034.D	RTX-VRX 0.45(mm)
240-96206-2 MSD		05/31/2018 03:46	1	A0053035.D	RTX-VRX 0.45(mm)
CCV 240-329068/36		05/31/2018 04:23	1	A0053036.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: AFID Start Date: 06/01/2018 09:46

Analysis Batch Number: 329505 End Date: 06/02/2018 04:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-329505/4		06/01/2018 09:46	1	A0060104.D	RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 10:24	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 11:02	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 12:16	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 12:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 13:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 14:11	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 14:48	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 15:27	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 16:06	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 16:45	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 17:23	1		RTX-VRX 0.45(mm)
CCV 240-329505/16		06/01/2018 18:02	1	A0060116.D	RTX-VRX 0.45(mm)
MB 240-329505/17		06/01/2018 18:41	1	A0060117.D	RTX-VRX 0.45(mm)
LCS 240-329505/18		06/01/2018 19:19	1	A0060118.D	RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 19:57	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 20:35	1		RTX-VRX 0.45(mm)
ZZZZZ		06/01/2018 21:12	1		RTX-VRX 0.45(mm)
240-96144-5		06/01/2018 21:50	20	A0060122.D	RTX-VRX 0.45(mm)
240-96144-6		06/01/2018 22:27	1	A0060123.D	RTX-VRX 0.45(mm)
CCV 240-329505/25		06/01/2018 23:42	1	A0060125.D	RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 00:20	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 00:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 01:35	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 02:12	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 02:50	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 03:27	1		RTX-VRX 0.45(mm)
ZZZZZ		06/02/2018 04:04	1		RTX-VRX 0.45(mm)
CCV 240-329505/33		06/02/2018 04:41	1	A0060133.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: AFID Start Date: 06/04/2018 07:25

Analysis Batch Number: 329811 End Date: 06/05/2018 04:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-329811/4		06/04/2018 07:25	1	A0060404.D	RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 08:04	1		RTX-VRX 0.45(mm)
CCV 240-329811/6		06/04/2018 08:42	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 09:20	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 09:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 10:37	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 11:15	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 11:53	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 12:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 13:10	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 13:49	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 14:27	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 15:06	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 15:44	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 16:21	1		RTX-VRX 0.45(mm)
CCV 240-329811/19		06/04/2018 16:59	1	A0060419.D	RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 17:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 18:14	1		RTX-VRX 0.45(mm)
MB 240-329811/22		06/04/2018 18:51	1	A0060422.D	RTX-VRX 0.45(mm)
LCS 240-329811/23		06/04/2018 19:28	1	A0060423.D	RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 20:06	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 20:43	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 21:20	1		RTX-VRX 0.45(mm)
ZZZZZ		06/04/2018 21:57	1		RTX-VRX 0.45(mm)
240-96257-2		06/04/2018 22:35	1	A0060428.D	RTX-VRX 0.45(mm)
240-96257-4		06/04/2018 23:12	50	A0060429.D	RTX-VRX 0.45(mm)
240-96362-2		06/04/2018 23:48	1	A0060430.D	RTX-VRX 0.45(mm)
CCV 240-329811/32		06/05/2018 01:02	1	A0060432.D	RTX-VRX 0.45(mm)
ZZZZZ		06/05/2018 01:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/05/2018 02:18	1		RTX-VRX 0.45(mm)
ZZZZZ		06/05/2018 02:55	1		RTX-VRX 0.45(mm)
ZZZZZ		06/05/2018 03:33	1		RTX-VRX 0.45(mm)
ZZZZZ		06/05/2018 04:10	1		RTX-VRX 0.45(mm)
CCV 240-329811/38		06/05/2018 04:48	1		RTX-VRX 0.45(mm)

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVRT 240-329068/4 Date Analyzed: 05/30/2018 06:50

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0053004.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.39		
UPPER LIMIT				10.49		
LOWER LIMIT				10.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
240-96144-2	MSA-MW-24S-052318	05/30/2018 00:00	A0053029.D	10.39		
CCVRT 240-329068/4		05/30/2018 06:50	A0053004.D	10.39		
CCV 240-329068/9		05/30/2018 10:46	A0053009.D	10.40		
CCV 240-329068/15		05/30/2018 14:46	A0053015.D	10.39		
MB 240-329068/16		05/30/2018 15:26	A0053016.D	10.39		
LCS 240-329068/17		05/30/2018 16:07	A0053017.D	10.39		
CCV 240-329068/25		05/30/2018 21:28	A0053025.D	10.39		
240-96206-2	MSA-MW-33S-052518	05/31/2018 02:30	A0053033.D	10.39		
240-96206-2 MS	MSA-MW-33S-052518 MS	05/31/2018 03:08	A0053034.D	10.39		
240-96206-2 MSD	MSA-MW-33S-052518 MSD	05/31/2018 03:46	A0053035.D	10.39		
CCV 240-329068/36		05/31/2018 04:23	A0053036.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVRT 240-329505/4 Date Analyzed: 06/01/2018 09:46

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0060104.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.39		
UPPER LIMIT				10.49		
LOWER LIMIT				10.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-329505/4		06/01/2018 09:46	A0060104.D	10.39		
CCV 240-329505/16		06/01/2018 18:02	A0060116.D	10.39		
MB 240-329505/17		06/01/2018 18:41	A0060117.D	10.39		
LCS 240-329505/18		06/01/2018 19:19	A0060118.D	10.39		
240-96144-5	MSA-MW-45S-052318	06/01/2018 21:50	A0060122.D	10.39		
240-96144-6	DMW-10S-052418	06/01/2018 22:27	A0060123.D	10.39		
CCV 240-329505/25		06/01/2018 23:42	A0060125.D	10.39		
CCV 240-329505/33		06/02/2018 04:41	A0060133.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCVRT 240-329811/4 Date Analyzed: 06/04/2018 07:25

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0060404.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.39		
UPPER LIMIT				10.49		
LOWER LIMIT				10.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-329811/4		06/04/2018 07:25	A0060404.D	10.39		
CCV 240-329811/19		06/04/2018 16:59	A0060419.D	10.39		
MB 240-329811/22		06/04/2018 18:51	A0060422.D	10.39		
LCS 240-329811/23		06/04/2018 19:28	A0060423.D	10.39		
240-96257-2	MSA-MW-3-052918	06/04/2018 22:35	A0060428.D	10.39		
240-96257-4	MSA-MW-54S-052918	06/04/2018 23:12	A0060429.D	10.39		
240-96362-2	DMW-1S-053018	06/04/2018 23:48	A0060430.D	10.39		
CCV 240-329811/32		06/05/2018 01:02	A0060432.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVRT 240-329068/4 Calibration Date: 05/30/2018 06:50

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0053004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		230280		939	800	17.4	20.0
C6-C12	Lin1		260027		929	800	16.1	20.0
Trifluorotoluene (Surr)	Lin1		248842		42.5	40.0	6.1	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329068/9 Calibration Date: 05/30/2018 10:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0053009.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		221440		902	800	12.7	20.0
C6-C12	Lin1		250421		891	800	11.4	20.0
Trifluorotoluene (Surr)	Lin1		265819		45.4	40.0	13.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329068/15 Calibration Date: 05/30/2018 14:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0053015.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		216207		880	800	10.0	20.0
C6-C12	Lin1		247054		878	800	9.7	20.0
Trifluorotoluene (Surr)	Lin1		252342		43.1	40.0	7.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329068/25 Calibration Date: 05/30/2018 21:28

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0053025.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		215294		876	800	9.5	20.0
C6-C12	Lin1		246528		876	800	9.4	20.0
Trifluorotoluene (Surr)	Lin1		213021		36.1	40.0	-9.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329068/36 Calibration Date: 05/31/2018 04:23

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0053036.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202974		824	800	3.0	20.0
C6-C12	Lin1		227454		801	800	0.0	20.0
Trifluorotoluene (Surr)	Lin1		208345		35.3	40.0	-11.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVRT 240-329505/4 Calibration Date: 06/01/2018 09:46

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060104.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		215127		875	800	9.4	20.0
C6-C12	Lin1		241337		855	800	6.9	20.0
Trifluorotoluene (Surr)	Lin1		210880		35.8	40.0	-10.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329505/16 Calibration Date: 06/01/2018 18:02

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060116.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		209956		853	800	6.7	20.0
C6-C12	Lin1		236841		838	800	4.7	20.0
Trifluorotoluene (Surr)	Lin1		211153		35.8	40.0	-10.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329505/25 Calibration Date: 06/01/2018 23:42

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060125.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		181195		732	800	-8.5	20.0
C6-C12	Lin1		204038		709	800	-11.4	20.0
Trifluorotoluene (Surr)	Lin1		197656		33.4	40.0	-16.4	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329505/33 Calibration Date: 06/02/2018 04:41

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060133.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		204320		830	800	3.7	20.0
C6-C12	Lin1		227998		803	800	0.3	20.0
Trifluorotoluene (Surr)	Lin1		209200		35.5	40.0	-11.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVRT 240-329811/4 Calibration Date: 06/04/2018 07:25

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060404.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		210465		855	800	6.9	20.0
C6-C12	Lin1		237428		840	800	5.0	20.0
Trifluorotoluene (Surr)	Lin1		267743		45.8	40.0	14.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329811/19 Calibration Date: 06/04/2018 16:59

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060419.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		215253		876	800	9.5	20.0
C6-C12	Lin1		244495		868	800	8.4	20.0
Trifluorotoluene (Surr)	Lin1		265380		45.4	40.0	13.4	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329811/32 Calibration Date: 06/05/2018 01:02

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060432.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		199492		809	800	1.1	20.0
C6-C12	Lin1		224817		790	800	-1.2	20.0
Trifluorotoluene (Surr)	Lin1		216061		36.7	40.0	-8.3	20.0

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 322909 Batch Start Date: 04/18/18 08:10 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	
STD1 240-322909/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-322909/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-322909/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-322909/7 ICRT		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-322909/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-322909/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-322909/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		
STD8 240-322909/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		
ICV 240-322909/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329068 Batch Start Date: 05/30/18 00:00 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-329068/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-329068/9		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-329068/15		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-329068/16		8015C		5 mL	5 mL				1 uL
LCS 240-329068/17		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-329068/25		8015C		5 mL	5 mL		40 uL		1 uL
240-96144-A-2	MSA-MW-24S-052318	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96206-A-2	MSA-MW-33S-052518	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96206-A-2 MS	MSA-MW-33S-052518	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-96206-A-2 MSD	MSA-MW-33S-052518	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
CCV 240-329068/36		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329505 Batch Start Date: 06/01/18 09:46 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-329505/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-329505/16		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-329505/17		8015C		5 mL	5 mL				1 uL
LCS 240-329505/18		8015C		5 mL	5 mL			40 uL	1 uL
240-96144-A-5	MSA-MW-45S-052318	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96144-A-6	DMW-10S-052418	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-329505/25		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-329505/33		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329811 Batch Start Date: 06/04/18 07:25 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-329811/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-329811/19		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-329811/22		8015C		5 mL	5 mL				1 uL
LCS 240-329811/23		8015C		5 mL	5 mL			40 uL	1 uL
240-96257-A-2	MSA-MW-3-052918	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96257-A-4	MSA-MW-54S-052918	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-96362-A-2	DMW-1S-053018	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-329811/32		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-MW-24S-052318	240-96144-2	83
MSA-MW-45S-052318	240-96144-5	86
DMW-10S-052418	240-96144-6	88
MSA-MW-33S-052518	240-96206-2	77
MSA-MW-3-052918	240-96257-2	73
MSA-MW-54S-052918	240-96257-4	81
DMW-1S-053018	240-96362-2	70
	MB 240-328956/9-A	80
	MB 240-329310/7-A	83
	MB 240-329956/8-A	78
	LCS 240-328956/10-A	78
	LCS 240-329310/8-A	87
	LCS 240-329956/9-A	83

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-328956/9-A

Matrix: Water Date Extracted: 05/29/2018 10:42

Lab File ID:(1) R053008.D Lab File ID:(2)

Date Analyzed:(1) 05/30/2018 19:18 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-328956/10-A	05/30/2018 19:45	
MSA-MW-24S-052318	240-96144-2	05/30/2018 21:08	
MSA-MW-45S-052318	240-96144-5	05/30/2018 21:36	
DMW-10S-052418	240-96144-6	05/30/2018 22:03	
MSA-MW-33S-052518	240-96206-2	05/30/2018 23:25	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-328956/9-A

Matrix: Water | Lab File ID: R053008.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/29/2018 10:42

Sample wt/vol: 250(mL) | Date Analyzed: 05/30/2018 19:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329220 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R053009.D

Lab ID: LCS 240-328956/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1580	79	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-329310/7-A

Matrix: Water Date Extracted: 05/31/2018 07:27

Lab File ID:(1) R060108.D Lab File ID:(2)

Date Analyzed:(1) 06/01/2018 17:42 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329310/8-A	06/01/2018 18:10	
MSA-MW-3-052918	240-96257-2	06/01/2018 19:04	
MSA-MW-54S-052918	240-96257-4	06/01/2018 19:32	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329310/7-A

Matrix: Water | Lab File ID: R060108.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 05/31/2018 07:27

Sample wt/vol: 250(mL) | Date Analyzed: 06/01/2018 17:42

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 329629 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R060109.D

Lab ID: LCS 240-329310/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1550	78	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: MB 240-329956/8-A

Matrix: Water Date Extracted: 06/04/2018 14:06

Lab File ID:(1) R060508.D Lab File ID:(2)

Date Analyzed:(1) 06/05/2018 17:23 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329956/9-A	06/05/2018 17:50	
DMW-1S-053018	240-96362-2	06/05/2018 20:06	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329956/8-A

Matrix: Water | Lab File ID: R060508.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 250(mL) | Date Analyzed: 06/05/2018 17:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R060509.D

Lab ID: LCS 240-329956/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1510	76	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: A2HP14R Start Date: 05/30/2018 18:23

Analysis Batch Number: 329220 End Date: 05/30/2018 23:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-329220/6		05/30/2018 18:23	1	R053006.D	Rxi-5HT 0.53(mm)
CCV 240-329220/7 CCVRT		05/30/2018 18:50	1	R053007.D	Rxi-5HT 0.53(mm)
MB 240-328956/9-A		05/30/2018 19:18	1	R053008.D	Rxi-5HT 0.53(mm)
LCS 240-328956/10-A		05/30/2018 19:45	1	R053009.D	Rxi-5HT 0.53(mm)
ZZZZZ		05/30/2018 20:41	1		Rxi-5HT 0.53(mm)
240-96144-2		05/30/2018 21:08	1	R053012.D	Rxi-5HT 0.53(mm)
240-96144-5		05/30/2018 21:36	1	R053013.D	Rxi-5HT 0.53(mm)
240-96144-6		05/30/2018 22:03	1	R053014.D	Rxi-5HT 0.53(mm)
ZZZZZ		05/30/2018 22:30	1		Rxi-5HT 0.53(mm)
ZZZZZ		05/30/2018 22:58	1		Rxi-5HT 0.53(mm)
240-96206-2		05/30/2018 23:25	1	R053017.D	Rxi-5HT 0.53(mm)
CCV 240-329220/18		05/30/2018 23:52	1	R053018.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: A2HP14R Start Date: 06/01/2018 16:47

Analysis Batch Number: 329629 End Date: 06/01/2018 21:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-329629/6		06/01/2018 16:47	1	R060106.D	Rxi-5HT 0.53(mm)
CCV 240-329629/7 CCVRT		06/01/2018 17:15	1	R060107.D	Rxi-5HT 0.53(mm)
MB 240-329310/7-A		06/01/2018 17:42	1	R060108.D	Rxi-5HT 0.53(mm)
LCS 240-329310/8-A		06/01/2018 18:10	1	R060109.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 18:37	1		Rxi-5HT 0.53(mm)
240-96257-2		06/01/2018 19:04	1	R060111.D	Rxi-5HT 0.53(mm)
240-96257-4		06/01/2018 19:32	1	R060112.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 19:59	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 20:26	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 20:54	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/01/2018 21:21	1		Rxi-5HT 0.53(mm)
CCV 240-329629/17		06/01/2018 21:48	1	R060117.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: A2HP14R Start Date: 06/05/2018 16:29

Analysis Batch Number: 330133 End Date: 06/05/2018 21:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-330133/6		06/05/2018 16:29	1	R060506.D	Rxi-5HT 0.53(mm)
CCV 240-330133/7 CCVRT		06/05/2018 16:56	1	R060507.D	Rxi-5HT 0.53(mm)
MB 240-329956/8-A		06/05/2018 17:23	1	R060508.D	Rxi-5HT 0.53(mm)
LCS 240-329956/9-A		06/05/2018 17:50	1	R060509.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 18:18	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 18:45	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 19:12	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 19:39	1		Rxi-5HT 0.53(mm)
240-96362-2		06/05/2018 20:06	1	R060514.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 20:33	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/05/2018 21:00	1		Rxi-5HT 0.53(mm)
CCV 240-330133/17		06/05/2018 21:28	1	R060517.D	Rxi-5HT 0.53(mm)

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCV 240-329220/7 Date Analyzed: 05/30/2018 18:50

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R053007.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-329220/7 CCVRT		05/30/2018 18:50	R053007.D	8.42		
MB 240-328956/9-A		05/30/2018 19:18	R053008.D	8.42		
LCS 240-328956/10-A		05/30/2018 19:45	R053009.D	8.42		
240-96144-2	MSA-MW-24S-052318	05/30/2018 21:08	R053012.D	8.42		
240-96144-5	MSA-MW-45S-052318	05/30/2018 21:36	R053013.D	8.42		
240-96144-6	DMW-10S-052418	05/30/2018 22:03	R053014.D	8.42		
240-96206-2	MSA-MW-33S-052518	05/30/2018 23:25	R053017.D	8.42		
CCV 240-329220/18		05/30/2018 23:52	R053018.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCV 240-329629/7 Date Analyzed: 06/01/2018 17:15

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R060107.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-329629/7 CCVRT		06/01/2018 17:15	R060107.D	8.42		
MB 240-329310/7-A		06/01/2018 17:42	R060108.D	8.42		
LCS 240-329310/8-A		06/01/2018 18:10	R060109.D	8.42		
240-96257-2	MSA-MW-3-052918	06/01/2018 19:04	R060111.D	8.42		
240-96257-4	MSA-MW-54S-052918	06/01/2018 19:32	R060112.D	8.42		
CCV 240-329629/17		06/01/2018 21:48	R060117.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Sample No.: CCV 240-330133/7 Date Analyzed: 06/05/2018 16:56

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R060507.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-330133/7 CCVRT		06/05/2018 16:56	R060507.D	8.42		
MB 240-329956/8-A		06/05/2018 17:23	R060508.D	8.42		
LCS 240-329956/9-A		06/05/2018 17:50	R060509.D	8.42		
240-96362-2	DMW-1S-053018	06/05/2018 20:06	R060514.D	8.42		
CCV 240-330133/17		06/05/2018 21:28	R060517.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96144-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII 8015C

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329220/7 Calibration Date: 05/30/2018 18:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R053007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	961362		113000	100000	13.0	20.0
o-Terphenyl (Surr)	Ave	998632	1112158		8910	8000	11.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329220/18 Calibration Date: 05/30/2018 23:52

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R053018.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	960379		113000	100000	12.9	20.0
o-Terphenyl (Surr)	Ave	998632	1109351		8890	8000	11.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329629/7 Calibration Date: 06/01/2018 17:15

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	838583		98600	100000	-1.4	20.0
o-Terphenyl (Surr)	Ave	998632	971159		7780	8000	-2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-329629/17 Calibration Date: 06/01/2018 21:48

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060117.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	872313		103000	100000	2.6	20.0
o-Terphenyl (Surr)	Ave	998632	1001721		8020	8000	0.3	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-330133/7 Calibration Date: 06/05/2018 16:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	831614		97800	100000	-2.2	20.0
o-Terphenyl (Surr)	Ave	998632	954101		7640	8000	-4.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 240-330133/17 Calibration Date: 06/05/2018 21:28

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060517.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	831384		97700	100000	-2.3	20.0
o-Terphenyl (Surr)	Ave	998632	968072		7760	8000	-3.1	20.0

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328956 Batch Start Date: 05/29/18 11:45 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 05/30/18 05:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-96144-G-2	MSA-MW-24S-052318	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
240-96144-I-5	MSA-MW-45S-052318	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
240-96144-F-6	DMW-10S-052418	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
240-96206-I-2	MSA-MW-33S-052518	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-328956/9		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-328956/10		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329310 Batch Start Date: 05/31/18 11:30 Batch Analyst: Earle, Steve

Batch Method: 3520C Batch End Date: 06/01/18 05:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-96257-G-2	MSA-MW-3-052918	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
240-96257-G-4	MSA-MW-54S-052918	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-329310/7		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-329310/8		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329956 Batch Start Date: 06/04/18 15:10 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 06/05/18 09:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00088	exOTPSURRW 00030
240-96362-H-2	DMW-1S-053018	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-329956/8		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-329956/9		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3560858
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2794736
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3594582

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/05/2018 19:29

Calibration ID: 39558

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		17001749	8.85				
UPPER LIMIT		25502624	9.85				
LOWER LIMIT		8500875	7.85				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 320-227464/4		17267382	8.89				
CCB 320-227464/13		17649302	8.83				
ICV 320-227464/14		17451004	8.83				
CCV 320-228148/1 CCVIS		24560535	8.67				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Sample No.: CCV 320-228148/1 Date Analyzed: 06/08/2018 14:04

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06082018A_004. Heated Purge: (Y/N) N

Calibration ID: 39558

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		24560535	8.67				
UPPER LIMIT		36840803	9.67				
LOWER LIMIT		12280268	7.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-228148/2		25322164	8.67				
CCB 320-228148/3		24959743	8.66				
CCV 320-228148/13		23644644	8.79				
CCB 320-228148/52		23376719	8.78				
MB 320-226303/1-A		24424834	8.82				
LCS 320-226303/2-A		23202961	8.81				
INF 320-226303/3-A		20722565	8.78				
240-96144-3	MSA-MW-24I-052318	23211151	8.79				
240-96144-8	MSA-MW-21I-052418	23291267	8.74				
CCV 320-228148/24		22724790	8.86				
MB 320-226450/1-A		22426605	8.87				
LCS 320-226450/2-A		20970286	8.89				
INF 320-226450/3-A		19364795	8.85				
240-96206-4	MSA-MW-15I-052518	19920334	8.82				
240-96206-4 MS	MSA-MW-15I-052518 MS	20791834	8.81				
240-96206-4 MSD	MSA-MW-15I-052518 MSD	19419613	8.82				
240-96206-5	MSA-MW-15D-052518	20732500	8.85				
CCV 320-228148/33		23205853	8.87				
CCVL 320-228148/50		23829382	8.87				
CCB 320-228148/51		23546350	8.89				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/13/2018 19:30

Calibration ID: 39710

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		22777583	8.87				
UPPER LIMIT		34166375	9.87				
LOWER LIMIT		11388792	7.87				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 320-229060/4		22028809	8.85				
CCB 320-229060/13		23587810	8.87				
ICV 320-229060/14		23676000	8.87				
CCV 320-229245/1 CCVIS		29290311	8.95				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Sample No.: CCV 320-229245/1 Date Analyzed: 06/14/2018 12:39

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06142018A_005. Heated Purge: (Y/N) N

Calibration ID: 39710

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		29290311	8.95				
UPPER LIMIT		43935467	9.95				
LOWER LIMIT		14645156	7.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-229245/2		29431042	8.95				
CCB 320-229245/3		29329641	8.97				
MB 320-228684/1-A		26221057	8.95				
LCS 320-228684/2-A		27299316	8.95				
INF 320-228684/3-A		25962464	8.90				
240-96257-3	MSA-MW-54I-052918	28598959	8.89				
240-96257-4	MSA-MW-54S-052918	28397251	8.87				
CCV 320-229245/14		28064712	8.98				
CCVL 320-229245/24		28913477	8.90				
CCB 320-229245/25		28258051	8.91				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/05/2018 19:29

Calibration ID: 39558

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		17001749	8.85				
UPPER LIMIT		25502624	9.85				
LOWER LIMIT		8500875	7.85				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 320-227464/4		17267382	8.89				
CCB 320-227464/13		17649302	8.83				
ICV 320-227464/14		17451004	8.83				
CCV 320-228148/1 CCVIS		24560535	8.67				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab File ID: Perc_06082018A_018.d Lab Sample ID: MB 320-226303/1-A

Matrix: Water Date Extracted: 05/30/2018 18:48

Instrument ID: A5 Date Analyzed: 06/08/2018 18:33

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-226303/2-A	Perc_06082018A_019.d	06/08/2018 18:46
MSA-MW-24I-052318	240-96144-3	Perc_06082018A_021.d	06/08/2018 19:12
MSA-MW-21I-052418	240-96144-8	Perc_06082018A_022.d	06/08/2018 19:26

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-226303/1-A

Matrix: Water | Lab File ID: Perc_06082018A_018.d

Analysis Method: 6850 | Date Collected:

Extraction Method: Filtration | Date Extracted: 05/30/2018 18:48

Sample wt/vol: 4.0(mL) | Date Analyzed: 06/08/2018 18:33

Con. Extract Vol.: 4.0(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_019.d

Lab ID: LCS 320-226303/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.20	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_020.d

Lab ID: INF 320-226303/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.13	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab File ID: Perc_06082018A_029.d Lab Sample ID: MB 320-226450/1-A

Matrix: Water Date Extracted: 05/31/2018 12:03

Instrument ID: A5 Date Analyzed: 06/08/2018 20:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-226450/2-A	Perc_06082018A_030.d	06/08/2018 21:12
MSA-MW-15I-052518	240-96206-4	Perc_06082018A_032.d	06/08/2018 21:39
MSA-MW-15I-052518 MS	240-96206-4 MS	Perc_06082018A_033.d	06/08/2018 21:52
MSA-MW-15I-052518 MSD	240-96206-4 MSD	Perc_06082018A_034.d	06/08/2018 22:05
MSA-MW-15D-052518	240-96206-5	Perc_06082018A_035.d	06/08/2018 22:19

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-226450/1-A

Matrix: Water | Lab File ID: Perc_06082018A_029.d

Analysis Method: 6850 | Date Collected:

Extraction Method: Filtration | Date Extracted: 05/31/2018 12:03

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/08/2018 20:59

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_030.d

Lab ID: LCS 320-226450/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	4.91	98	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_033.d

Lab ID: 240-96206-4 MS Client ID: MSA-MW-15I-052518 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	4.70	94	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_034.d

Lab ID: 240-96206-4 MSD Client ID: MSA-MW-15I-052518 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	4.89	98	4	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06082018A_031.d

Lab ID: INF 320-226450/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	4.93	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab File ID: Perc_06142018A_008.d Lab Sample ID: MB 320-228684/1-A

Matrix: Water Date Extracted: 06/12/2018 14:07

Instrument ID: A5 Date Analyzed: 06/14/2018 13:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-228684/2-A	Perc_06142018A_009.d	06/14/2018 13:32
MSA-MW-54I-052918	240-96257-3	Perc_06142018A_011.d	06/14/2018 13:59
MSA-MW-54S-052918	240-96257-4	Perc_06142018A_012.d	06/14/2018 14:12

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-228684/1-A

Matrix: Water Lab File ID: Perc_06142018A_008.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) Date Analyzed: 06/14/2018 13:19

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_009.d

Lab ID: LCS 320-228684/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.25	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_010.d

Lab ID: INF 320-228684/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.35	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Start Date: 06/05/2018 17:42

Analysis Batch Number: 227464 End Date: 06/06/2018 01:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-227464/4		06/05/2018 17:42	1	Perc_06052018A_004.d	Anion HR 4.6(mm)
STD01 320-227464/5 IC		06/05/2018 17:55	1	Perc_06052018A_005.d	Anion HR 4.6(mm)
STD02 320-227464/6 IC		06/05/2018 18:09	1	Perc_06052018A_006.d	Anion HR 4.6(mm)
STD03 320-227464/7 IC		06/05/2018 18:22	1	Perc_06052018A_007.d	Anion HR 4.6(mm)
STD04 320-227464/8 IC		06/05/2018 18:35	1	Perc_06052018A_008.d	Anion HR 4.6(mm)
STD05 320-227464/9 ICISAV		06/05/2018 18:49	1	Perc_06052018A_009.d	Anion HR 4.6(mm)
STD06 320-227464/10 IC		06/05/2018 19:02	1	Perc_06052018A_010.d	Anion HR 4.6(mm)
STD07 320-227464/11 IC		06/05/2018 19:15	1	Perc_06052018A_011.d	Anion HR 4.6(mm)
STD08 320-227464/12 IC		06/05/2018 19:29	1	Perc_06052018A_012.d	Anion HR 4.6(mm)
CCB 320-227464/13		06/05/2018 19:42	1	Perc_06052018A_013.d	Anion HR 4.6(mm)
ICV 320-227464/14		06/05/2018 19:55	1	Perc_06052018A_014.d	Anion HR 4.6(mm)
CCV 320-227464/15		06/05/2018 20:08	1		Anion HR 4.6(mm)
CCVL 320-227464/16		06/05/2018 20:22	1		Anion HR 4.6(mm)
CCB 320-227464/17		06/05/2018 20:35	1		Anion HR 4.6(mm)
CCV 320-227464/29		06/05/2018 23:15	1		Anion HR 4.6(mm)
CCV 320-227464/37		06/06/2018 01:01	1		Anion HR 4.6(mm)
CCVL 320-227464/38		06/06/2018 01:15	1		Anion HR 4.6(mm)
CCB 320-227464/39		06/06/2018 01:28	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Start Date: 06/08/2018 14:04

Analysis Batch Number: 228148 End Date: 06/09/2018 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-228148/1 CCVIS		06/08/2018 14:04	1	Perc_06082018A_004.d	Anion HR 4.6(mm)
CCVL 320-228148/2		06/08/2018 14:17	1	Perc_06082018A_005.d	Anion HR 4.6(mm)
CCB 320-228148/3		06/08/2018 14:30	1	Perc_06082018A_006.d	Anion HR 4.6(mm)
CCV 320-228148/13		06/08/2018 18:06	1	Perc_06082018A_016.d	Anion HR 4.6(mm)
CCB 320-228148/52		06/08/2018 18:19	1	Perc_06082018A_017.d	Anion HR 4.6(mm)
MB 320-226303/1-A		06/08/2018 18:33	1	Perc_06082018A_018.d	Anion HR 4.6(mm)
LCS 320-226303/2-A		06/08/2018 18:46	1	Perc_06082018A_019.d	Anion HR 4.6(mm)
INF 320-226303/3-A		06/08/2018 18:59	1	Perc_06082018A_020.d	Anion HR 4.6(mm)
240-96144-3		06/08/2018 19:12	1	Perc_06082018A_021.d	Anion HR 4.6(mm)
240-96144-8		06/08/2018 19:26	1	Perc_06082018A_022.d	Anion HR 4.6(mm)
ZZZZZ		06/08/2018 19:39	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 19:52	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 20:06	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 20:19	1		Anion HR 4.6(mm)
CCV 320-228148/24		06/08/2018 20:46	1	Perc_06082018A_028.d	Anion HR 4.6(mm)
MB 320-226450/1-A		06/08/2018 20:59	1	Perc_06082018A_029.d	Anion HR 4.6(mm)
LCS 320-226450/2-A		06/08/2018 21:12	1	Perc_06082018A_030.d	Anion HR 4.6(mm)
INF 320-226450/3-A		06/08/2018 21:26	1	Perc_06082018A_031.d	Anion HR 4.6(mm)
240-96206-4		06/08/2018 21:39	1	Perc_06082018A_032.d	Anion HR 4.6(mm)
240-96206-4 MS		06/08/2018 21:52	1	Perc_06082018A_033.d	Anion HR 4.6(mm)
240-96206-4 MSD		06/08/2018 22:05	1	Perc_06082018A_034.d	Anion HR 4.6(mm)
240-96206-5		06/08/2018 22:19	1	Perc_06082018A_035.d	Anion HR 4.6(mm)
CCV 320-228148/33		06/08/2018 22:45	1	Perc_06082018A_037.d	Anion HR 4.6(mm)
ZZZZZ		06/08/2018 22:59	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:12	1		Anion HR 4.6(mm)
INF 320-226711/3-A		06/08/2018 23:25	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:39	1		Anion HR 4.6(mm)
ZZZZZ		06/08/2018 23:52	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:05	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:18	1		Anion HR 4.6(mm)
CCV 320-228148/42		06/09/2018 00:45	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 00:58	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:12	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:25	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:38	1		Anion HR 4.6(mm)
ZZZZZ		06/09/2018 01:52	1		Anion HR 4.6(mm)
INF 320-225721/6-A		06/09/2018 02:05	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Start Date: 06/08/2018 14:04

Analysis Batch Number: 228148 End Date: 06/09/2018 02:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-228148/49		06/09/2018 02:32	1		Anion HR 4.6(mm)
CCVL 320-228148/50		06/09/2018 02:45	1	Perc_06082018A_055.d	Anion HR 4.6(mm)
CCB 320-228148/51		06/09/2018 02:58	1	Perc_06082018A_056.d	Anion HR 4.6(mm)

6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1 Analy Batch No.: 227464

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:55 Calibration End Date: 06/05/2018 19:29 Calibration ID: 39558

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-227464/5	Perc_06052018A_005.d
Level 2	STD02 320-227464/6	Perc_06052018A_006.d
Level 3	STD03 320-227464/7	Perc_06052018A_007.d
Level 4	STD04 320-227464/8	Perc_06052018A_008.d
Level 5	STD05 320-227464/9	Perc_06052018A_009.d
Level 6	STD06 320-227464/10	Perc_06052018A_010.d
Level 7	STD07 320-227464/11	Perc_06052018A_011.d
Level 8	STD08 320-227464/12	Perc_06052018A_012.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	+++++ 1.0037	+++++ 1.0267	0.9751 1.0273	0.9450	0.9764	Ave		0.9924				3.3		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 320-227464/14 Calibration Date: 06/05/2018 19:55

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06052018A_014.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	1.050		5.29	5.00	5.8	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-228148/1 Calibration Date: 06/08/2018 14:04

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	1.009		2.03	2.00	1.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVL 320-228148/2 Calibration Date: 06/08/2018 14:17

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9640		0.486	0.500	-2.9	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-228148/13 Calibration Date: 06/08/2018 18:06

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9620		0.969	1.00	-3.1	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-228148/24 Calibration Date: 06/08/2018 20:46

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.996		2.01	2.00	0.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-228148/33 Calibration Date: 06/08/2018 22:45

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_037.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	1.057		1.06	1.00	6.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVL 320-228148/50 Calibration Date: 06/09/2018 02:45

Instrument ID: A5 Calib Start Date: 06/05/2018 17:55

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/05/2018 19:29

Lab File ID: Perc_06082018A_055.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9924	0.9032		0.455	0.500	-9.0	50.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Start Date: 06/13/2018 17:44

Analysis Batch Number: 229060 End Date: 06/14/2018 02:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-229060/4		06/13/2018 17:44	1	Perc_06132018A_006.d	Anion HR 4.6(mm)
STD01 320-229060/5 IC		06/13/2018 17:57	1	Perc_06132018A_007.d	Anion HR 4.6(mm)
STD02 320-229060/6 IC		06/13/2018 18:10	1	Perc_06132018A_008.d	Anion HR 4.6(mm)
STD03 320-229060/7 IC		06/13/2018 18:24	1	Perc_06132018A_009.d	Anion HR 4.6(mm)
STD04 320-229060/8 IC		06/13/2018 18:37	1	Perc_06132018A_010.d	Anion HR 4.6(mm)
STD05 320-229060/9 ICISAV		06/13/2018 18:50	1	Perc_06132018A_011.d	Anion HR 4.6(mm)
STD06 320-229060/10 IC		06/13/2018 19:04	1	Perc_06132018A_012.d	Anion HR 4.6(mm)
STD07 320-229060/11 IC		06/13/2018 19:17	1	Perc_06132018A_013.d	Anion HR 4.6(mm)
STD08 320-229060/12 IC		06/13/2018 19:30	1	Perc_06132018A_014.d	Anion HR 4.6(mm)
CCB 320-229060/13		06/13/2018 19:44	1	Perc_06132018A_015.d	Anion HR 4.6(mm)
ICV 320-229060/14		06/13/2018 19:57	1	Perc_06132018A_016.d	Anion HR 4.6(mm)
CCV 320-229060/15		06/13/2018 20:10	1		Anion HR 4.6(mm)
CCVL 320-229060/16		06/13/2018 20:24	1		Anion HR 4.6(mm)
CCB 320-229060/17		06/13/2018 20:37	1		Anion HR 4.6(mm)
CCV 320-229060/29		06/13/2018 23:17	1		Anion HR 4.6(mm)
CCV 320-229060/41		06/14/2018 01:56	1		Anion HR 4.6(mm)
CCVL 320-229060/42		06/14/2018 02:10	1		Anion HR 4.6(mm)
CCB 320-229060/43		06/14/2018 02:23	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Instrument ID: A5 Start Date: 06/14/2018 12:39

Analysis Batch Number: 229245 End Date: 06/14/2018 17:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-229245/1 CCVIS		06/14/2018 12:39	1	Perc_06142018A_005.d	Anion HR 4.6(mm)
CCVL 320-229245/2		06/14/2018 12:52	1	Perc_06142018A_006.d	Anion HR 4.6(mm)
CCB 320-229245/3		06/14/2018 13:06	1	Perc_06142018A_007.d	Anion HR 4.6(mm)
MB 320-228684/1-A		06/14/2018 13:19	1	Perc_06142018A_008.d	Anion HR 4.6(mm)
LCS 320-228684/2-A		06/14/2018 13:32	1	Perc_06142018A_009.d	Anion HR 4.6(mm)
INF 320-228684/3-A		06/14/2018 13:46	1	Perc_06142018A_010.d	Anion HR 4.6(mm)
240-96257-3		06/14/2018 13:59	1	Perc_06142018A_011.d	Anion HR 4.6(mm)
240-96257-4		06/14/2018 14:12	1	Perc_06142018A_012.d	Anion HR 4.6(mm)
ZZZZZ		06/14/2018 14:26	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 14:39	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 14:52	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 15:05	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 15:19	1		Anion HR 4.6(mm)
CCV 320-229245/14		06/14/2018 15:32	1	Perc_06142018A_018.d	Anion HR 4.6(mm)
INF 320-228974/3-A		06/14/2018 15:45	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 15:59	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 16:12	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 16:26	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 16:39	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 16:52	1		Anion HR 4.6(mm)
ZZZZZ		06/14/2018 17:05	1		Anion HR 4.6(mm)
CCV 320-229245/23		06/14/2018 17:32	1		Anion HR 4.6(mm)
CCVL 320-229245/24		06/14/2018 17:45	1	Perc_06142018A_028.d	Anion HR 4.6(mm)
CCB 320-229245/25		06/14/2018 17:59	1	Perc_06142018A_029.d	Anion HR 4.6(mm)

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1 Analy Batch No.: 229060

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/13/2018 17:57 Calibration End Date: 06/13/2018 19:30 Calibration ID: 39710

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-229060/5	Perc_06132018A_007.d
Level 2	STD02 320-229060/6	Perc_06132018A_008.d
Level 3	STD03 320-229060/7	Perc_06132018A_009.d
Level 4	STD04 320-229060/8	Perc_06132018A_010.d
Level 5	STD05 320-229060/9	Perc_06132018A_011.d
Level 6	STD06 320-229060/10	Perc_06132018A_012.d
Level 7	STD07 320-229060/11	Perc_06132018A_013.d
Level 8	STD08 320-229060/12	Perc_06132018A_014.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.7299 0.9313	0.8629 0.9610	0.8284 0.9609	0.9100	0.9339	Ave		0.8898				8.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICV 320-229060/14 Calibration Date: 06/13/2018 19:57

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06132018A_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9670		5.43	5.00	8.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-229245/1 Calibration Date: 06/14/2018 12:39

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9074		2.04	2.00	2.0	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVL 320-229245/2 Calibration Date: 06/14/2018 12:52

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.8876		0.499	0.500	-0.3	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCV 320-229245/14 Calibration Date: 06/14/2018 15:32

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9286		1.04	1.00	4.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Lab Sample ID: CCVL 320-229245/24 Calibration Date: 06/14/2018 17:45

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9125		0.513	0.500	2.5	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: ICB 320-227464/4

Matrix: Water | Lab File ID: Perc_06052018A_004.d

Analysis Method: 6850 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/05/2018 17:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 227464 | Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-227464/13

Matrix: Water Lab File ID: Perc_06052018A_013.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/05/2018 19:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 227464 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-228148/3

Matrix: Water Lab File ID: Perc_06082018A_006.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/08/2018 14:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 320-228148/51

Matrix: Water | Lab File ID: Perc_06082018A_056.d

Analysis Method: 6850 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/09/2018 02:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 | Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-228148/52

Matrix: Water Lab File ID: Perc_06082018A_017.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/08/2018 18:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 228148 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-229060/4

Matrix: Water Lab File ID: Perc_06132018A_006.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/13/2018 17:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229060 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-229060/13

Matrix: Water Lab File ID: Perc_06132018A_015.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/13/2018 19:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229060 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96144-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 320-229245/3

Matrix: Water | Lab File ID: Perc_06142018A_007.d

Analysis Method: 6850 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/14/2018 13:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 | Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-229245/25

Matrix: Water Lab File ID: Perc_06142018A_029.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/14/2018 17:59

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Batch Number: 226303 Batch Start Date: 05/30/18 18:48 Batch Analyst: Rodriguez, Edson R

Batch Method: Filtration Batch End Date: 05/30/18 20:28

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00048		
MB 320-226303/1		Filtration, 6850		4.0 mL	4.0 mL	40 uL			
LCS 320-226303/2		Filtration, 6850		4.0 mL	4.0 mL	40 uL	20 uL		
INF 320-226303/3		Filtration, 6850		4.0 mL	4.0 mL	40 uL	20 uL		
240-96144-D-3	MSA-MW-24I-052318	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL			
240-96144-D-8	MSA-MW-21I-052418	Filtration, 6850	T	4.0 mL	4.0 mL	40 uL			

Batch Notes	
BA/AG/H Cartridge ID	180503
Batch Comment	Sample labels match client IDs ERR 5/30/18
Filter #2 ID	0.22 um 00251378
Filter ID	0.45 Filter R7PA83892
Interference check solution ID	1249895
Internal Standard ID#	1128148
Analyst ID - IS Reagent Drop	VPM
Analyst ID - IS Reagent Drop Witness	ERR
Analyst ID - TA Reagent Drop	VPM
Analyst ID - TA Reagent Drop Witness	ERR
Reagent Water ID	5/30/18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Batch Number: 226450 Batch Start Date: 05/31/18 12:02 Batch Analyst: Rodriguez, Edson R

Batch Method: Filtration Batch End Date: 05/31/18 15:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00048		
MB 320-226450/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-226450/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-226450/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-96206-D-4	MSA-MW-15I-052518	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-96206-D-4 MS	MSA-MW-15I-052518	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-96206-D-4 MSD	MSA-MW-15I-052518	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-96206-D-5	MSA-MW-15D-052518	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			

Batch Notes	
BA/AG/H Cartridge ID	180503
Batch Comment	Sample labels match client IDs ERR 5/31/18
Filter #2 ID	0.22 um 00251378
Filter ID	0.45 Filter R7PA83892
Interference check solution ID	1249895
Internal Standard ID#	1128148
Analyst ID - IS Reagent Drop	JER
Analyst ID - IS Reagent Drop Witness	ERR
Analyst ID - TA Reagent Drop	JER
Analyst ID - TA Reagent Drop Witness	ERR
Reagent Water ID	5/30/18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96144-1

SDG No.:

Batch Number: 228684 Batch Start Date: 06/12/18 14:07 Batch Analyst: Rodriguez, Edson R

Batch Method: Filtration Batch End Date: 06/12/18 18:14

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00052		
MB 320-228684/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-228684/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-228684/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-96257-F-3	MSA-MW-54I-052918	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-96257-J-4	MSA-MW-54S-052918	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			

Batch Notes	
BA/AG/H Cartridge ID	180503
Batch Comment	Sample labels match client IDs ERR 6/12/2018
Filter #2 ID	0.20 Filter R7CA91455
Filter ID	0.45 Filter R7PA83892
Interference check solution ID	1140360
Internal Standard ID#	1128148
Analyst ID - IS Reagent Drop	JER
Analyst ID - IS Reagent Drop Witness	ERR
Analyst ID - TA Reagent Drop	JER
Analyst ID - TA Reagent Drop Witness	ERR
Reagent Water ID	6/6/18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
MSA-MW-24S-052318	240-96144-2
MSA-MW-24I-052318	240-96144-3
MSA-MW-30I-052318	240-96144-4
MSA-MW-45S-052318	240-96144-5
DMW-10S-052418	240-96144-6
DMW-10I-052418	240-96144-7
MSA-MW-21I-052418	240-96144-8
MSA-MW-21D-052418	240-96144-9
MSA-MW-33S-052518	240-96206-2
MSA-MW-33I-052518	240-96206-3
MSA-MW-15I-052518	240-96206-4
MSA-MW-15D-052518	240-96206-5
MSA-MW-3-052918	240-96257-2
MSA-MW-54I-052918	240-96257-3
MSA-MW-54S-052918	240-96257-4
DMW-1S-053018	240-96362-2
DMW-1A-053018	240-96362-3
DMW-1B-053018	240-96362-4
MSA-MW-19D-053018	240-96362-5

Comments:

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96144-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-96144-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Dissolved Zinc		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Zinc		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-96144-1

SDG No.:

Instrument ID: I11 Date: 05/22/2018 10:50

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020A
Dissolved Antimony		1000	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		2000	6020A
Dissolved Cobalt		2000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		3000	6020A
Lead		3000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		500	6020A
Silver		500	6020A

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			08:57																									
ICIS 240-329885/2			09:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-329885/3 IC	1		09:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-329885/4 IC	1		09:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-329885/5 IC	1		09:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-329885/6 IC	1		09:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-329885/7	1		09:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-329885/8	1		09:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-329885/9	1		09:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-329885/10	1		09:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-329885/11	1		09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-329885/12			09:46																									
CCB 240-329885/13			09:50																									
ZZZZZZ			09:55																									
ZZZZZZ			09:59																									
ZZZZZZ			10:04																									
ZZZZZZ			10:08																									
CCV 240-329885/18			10:13																									
CCB 240-329885/19			10:17																									
CCVL 240-329885/20			10:22																									
ZZZZZZ			10:26																									
ZZZZZZ			10:30																									
ZZZZZZ			10:35																									
ZZZZZZ			10:39																									
ZZZZZZ			10:44																									
ZZZZZZ			10:48																									
ZZZZZZ			10:53																									
ZZZZZZ			10:57																									
ZZZZZZ			11:02																									
CCV 240-329885/30			11:06																									
CCB 240-329885/31			11:11																									
ZZZZZZ			11:15																									
ZZZZZZ			11:20																									
ZZZZZZ			11:24																									
ZZZZZZ			11:28																									
ZZZZZZ			11:33																									
CCV 240-329885/37			11:37																									
CCB 240-329885/38			11:42																									
ZZZZZZ			11:46																									
ZZZZZZ			11:51																									
ZZZZZZ			11:55																									
ZZZZZZ			12:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			12:04																										
CCV 240-329885/44			12:09																										
CCB 240-329885/45			12:13																										
CCVL 240-329885/46			12:18																										
ZZZZZZ			12:22																										
ZZZZZZ			12:26																										
ZZZZZZ			12:31																										
ZZZZZZ			12:35																										
ZZZZZZ			12:40																										
ZZZZZZ			12:44																										
ZZZZZZ			12:49																										
ZZZZZZ			12:53																										
ZZZZZZ			12:58																										
CCV 240-329885/56			13:02																										
CCB 240-329885/57			13:07																										
ZZZZZZ			13:11																										
ZZZZZZ			13:16																										
ZZZZZZ			13:20																										
ZZZZZZ			13:24																										
ZZZZZZ			13:29																										
ZZZZZZ			13:33																										
ZZZZZZ			13:38																										
ZZZZZZ			13:42																										
ZZZZZZ			13:47																										
ZZZZZZ			13:51																										
CCV 240-329885/68			13:56																										
CCB 240-329885/69			14:00																										
ZZZZZZ			14:04																										
ZZZZZZ			14:09																										
ZZZZZZ			14:13																										
ZZZZZZ			14:18																										
ZZZZZZ			14:22																										
CCV 240-329885/75			14:27																										
CCB 240-329885/76			14:31																										
CCVL 240-329885/77			14:36																										
ZZZZZZ			14:40																										
ZZZZZZ			14:45																										
ZZZZZZ			14:49																										
ZZZZZZ			14:53																										
ZZZZZZ			14:58																										
ZZZZZZ			15:02																										
ZZZZZZ			15:07																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			15:11																											
ZZZZZZ			15:16																											
CCV 240-329885/87			15:20																											
CCB 240-329885/88			15:25																											
ZZZZZZ			15:29																											
CCV 240-329885/90			15:34																											
CCB 240-329885/91			15:38																											
ZZZZZZ			15:43																											
ZZZZZZ			15:47																											
ZZZZZZ			15:52																											
ZZZZZZ			15:56																											
ZZZZZZ			16:00																											
ZZZZZZ			16:05																											
ZZZZZZ			16:09																											
ZZZZZZ			16:14																											
ZZZZZZ			16:18																											
ZZZZZZ			16:23																											
CCV 240-329885/102			16:27																											
CCB 240-329885/103			16:32																											
CCV 240-329885/104			16:36																											
CCB 240-329885/105			16:40																											
ZZZZZZ			16:45																											
ZZZZZZ			16:49																											
ZZZZZZ			16:54																											
ZZZZZZ			16:58																											
ZZZZZZ			17:03																											
ZZZZZZ			17:07																											
ZZZZZZ			17:12																											
ZZZZZZ			17:16																											
ZZZZZZ			17:21																											
ZZZZZZ			17:25																											
CCV 240-329885/116			17:29																											
CCB 240-329885/117			17:34																											
ZZZZZZ			17:38																											
ZZZZZZ			17:43																											
ZZZZZZ			17:47																											
ZZZZZZ			17:52																											
ZZZZZZ			17:56																											
ZZZZZZ			18:01																											
ZZZZZZ			18:05																											
ZZZZZZ			18:10																											
ZZZZZZ			18:14																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:18																									
CCV 240-329885/128			18:23																									
CCB 240-329885/129			18:27																									
ZZZZZZ			18:32																									
ZZZZZZ			18:36																									
ZZZZZZ			18:41																									
CCV 240-329885/133	1		18:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-329885/134	1		18:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MB 240-328941/1-A	1	R	18:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-328941/2-A	1	R	18:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96144-2	1	D	19:03	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-96144-2 SD	5	D	19:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-329885/139	1		19:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-329885/140	1		19:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96144-2 PDS	1	D	19:21						X	X					X	X					X								
240-96144-2 MS	1	D	19:25	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
240-96144-2 MSD	1	D	19:30	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
240-96144-2	1	R	19:34	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-96144-3	1	R	19:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-3	1	D	19:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-329885/147	1		19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-329885/148	1		19:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-4	1	R	19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-4	1	D	20:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-5	1	R	20:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-5	1	D	20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-6	1	R	20:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-6	1	D	20:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-7	1	R	20:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-7	1	D	20:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-8	1	R	20:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-8	1	D	20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-329885/159	1		20:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-329885/160	1		20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-9	1	R	20:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96144-9	1	D	20:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			20:59																									
ZZZZZZ			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
CCV 240-329885/167	1		21:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-329885/168	1		21:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCVL 240-329885/169	1		21:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			21:30																									
ZZZZZZ			21:35																									
ZZZZZZ			21:39																									
ZZZZZZ			21:43																									
ZZZZZZ			21:48																									
ZZZZZZ			21:52																									
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:06																									
CCV 240-329885/179			22:10																									
CCB 240-329885/180			22:15																									
ZZZZZZ			22:19																									
ZZZZZZ			22:24																									
ZZZZZZ			22:28																									
ZZZZZZ			22:32																									
ZZZZZZ			22:37																									
ZZZZZZ			22:41																									
ZZZZZZ			22:46																									
ZZZZZZ			22:50																									
ZZZZZZ			22:55																									
CCV 240-329885/190			22:59																									
CCB 240-329885/191			23:04																									
ZZZZZZ			23:08																									
ZZZZZZ			23:13																									
ZZZZZZ			23:17																									
ZZZZZZ			23:22																									
ZZZZZZ			23:26																									
ZZZZZZ			23:30																									
ZZZZZZ			23:35																									
ZZZZZZ			23:39																									
ZZZZZZ			23:44																									
ZZZZZZ			23:48																									
CCV 240-329885/202			23:53																									
CCB 240-329885/203			23:57																									
ZZZZZZ			00:02																									
ZZZZZZ			00:06																									
ZZZZZZ			00:11																									
ZZZZZZ			00:15																									
ZZZZZZ			00:20																									
ZZZZZZ			00:24																									
CCV 240-329885/210			00:28																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/01/2018 08:57 End Date: 06/02/2018 03:18

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCB 240-329885/211			00:33																											
CCVL 240-329885/212			00:37																											
ZZZZZZ			00:42																											
ZZZZZZ			00:46																											
ZZZZZZ			00:51																											
ZZZZZZ			00:55																											
ZZZZZZ			01:00																											
ZZZZZZ			01:04																											
ZZZZZZ			01:09																											
ZZZZZZ			01:13																											
ZZZZZZ			01:18																											
CCV 240-329885/222			01:22																											
CCB 240-329885/223			01:27																											
ZZZZZZ			01:31																											
ZZZZZZ			01:35																											
ZZZZZZ			01:40																											
ZZZZZZ			01:44																											
ZZZZZZ			01:49																											
ZZZZZZ			01:53																											
ZZZZZZ			01:58																											
ZZZZZZ			02:02																											
ZZZZZZ			02:07																											
ZZZZZZ			02:11																											
CCV 240-329885/234			02:16																											
CCB 240-329885/235			02:20																											
ZZZZZZ			02:25																											
ZZZZZZ			02:29																											
ZZZZZZ			02:34																											
ZZZZZZ			02:38																											
ZZZZZZ			02:43																											
ZZZZZZ			02:47																											
ZZZZZZ			02:51																											
ZZZZZZ			02:56																											
ZZZZZZ			03:00																											
CCV 240-329885/245			03:05																											
CCB 240-329885/246			03:09																											
CCV 240-329885/247			03:14																											
CCB 240-329885/248			03:18																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/01/2018 End Date: 06/01/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-329885/3 IC	09:06	100		102		101		102		103	
STD2 240-329885/4 IC	09:10	101		102		102		99		101	
STD3 240-329885/5 IC	09:14	101		105		104		98		102	
STD4 240-329885/6 IC	09:19	101		102		104		105		104	
ICV 240-329885/7	09:23	106		107		109		105		106	
ICB 240-329885/8	09:28	105		109		106		108		109	
ICVL 240-329885/9	09:32	107		107		109		109		106	
ICSA 240-329885/10	09:37	100		104		106		99		101	
ICSAB 240-329885/11	09:41	97		104		105		101		100	
CCV 240-329885/133	18:45	93		92		91		91		94	
CCB 240-329885/134	18:50	95		91		91		96		98	
MB 240-328941/1-A	18:54	91		88		87		94		95	
LCS 240-328941/2-A	18:59	86		87		86		90		91	
240-96144-2	19:03	82		104		101		80		84	
240-96144-2 SD	19:08	86		90		91		89		94	
ICSA 240-329885/139	19:12	87		89		87		89		92	
ICSAB 240-329885/140	19:16	85		89		88		88		94	
240-96144-2 PDS	19:21	79		105		102		82		87	
240-96144-2 MS	19:25	78		106		102		85		89	
240-96144-2 MSD	19:30	77		108		105		84		90	
240-96144-2	19:34	79		106		105		84		89	
240-96144-3	19:39	83		84		86		93		98	
240-96144-3	19:43	85		85		88		97		97	
CCV 240-329885/147	19:48	95		96		98		99		103	
CCB 240-329885/148	19:52	95		95		95		100		103	
240-96144-4	19:57	86		88		89		90		94	
240-96144-4	20:01	86		86		88		91		92	
240-96144-5	20:05	82		86		84		81		87	
240-96144-5	20:10	80		85		84		83		87	
240-96144-6	20:14	88		89		91		88		93	
240-96144-6	20:19	91		93		94		93		96	
240-96144-7	20:23	86		89		89		93		96	
240-96144-7	20:28	89		92		92		95		97	
240-96144-8	20:32	93		95		95		97		100	
240-96144-8	20:37	92		95		96		94		98	
CCV 240-329885/159	20:41	95		96		97		101		103	
CCB 240-329885/160	20:45	96		97		92		102		103	
240-96144-9	20:50	94		93		96		97		100	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/01/2018 End Date: 06/01/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
240-96144-9	20:54	95		95		97		98		100	
CCV 240-329885/167	21:17	86		87		89		89		92	
CCB 240-329885/168	21:21	90		90		89		95		98	
CCVL 240-329885/169	21:26	89		89		88		95		98	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/01/2018 End Date: 06/01/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-329885/3 IC	09:06	104		107		98					
STD2 240-329885/4 IC	09:10	106		106		98					
STD3 240-329885/5 IC	09:14	106		107		96					
STD4 240-329885/6 IC	09:19	107		106		102					
ICV 240-329885/7	09:23	109		110		101					
ICB 240-329885/8	09:28	107		110		103					
ICVL 240-329885/9	09:32	107		109		102					
ICSA 240-329885/10	09:37	106		108		99					
ICSAB 240-329885/11	09:41	106		109		99					
CCV 240-329885/133	18:45	97		100		89					
CCB 240-329885/134	18:50	97		98		93					
MB 240-328941/1-A	18:54	97		98		93					
LCS 240-328941/2-A	18:59	95		98		88					
240-96144-2	19:03	141		138		76					
240-96144-2 SD	19:08	109		110		89					
ICSA 240-329885/139	19:12	96		99		86					
ICSAB 240-329885/140	19:16	96		101		87					
240-96144-2 PDS	19:21	147		140		80					
240-96144-2 MS	19:25	150		144		82					
240-96144-2 MSD	19:30			148		82					
240-96144-2	19:34			147		82					
240-96144-3	19:39	101		104		94					
240-96144-3	19:43	99		102		94					
CCV 240-329885/147	19:48	104		106		95					
CCB 240-329885/148	19:52	102		102		97					
240-96144-4	19:57	95		97		89					
240-96144-4	20:01	95		97		88					
240-96144-5	20:05	88		89		77					
240-96144-5	20:10	90		92		78					
240-96144-6	20:14	95		98		85					
240-96144-6	20:19	100		102		87					
240-96144-7	20:23	99		102		89					
240-96144-7	20:28	100		103		90					
240-96144-8	20:32	100		103		89					
240-96144-8	20:37	100		103		88					
CCV 240-329885/159	20:41	104		107		94					
CCB 240-329885/160	20:45	104		104		96					
240-96144-9	20:50	101		105		93					

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/01/2018 End Date: 06/01/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
240-96144-9	20:54	101		102		93					
CCV 240-329885/167	21:17	91		95		84					
CCB 240-329885/168	21:21	96		101		92					
CCVL 240-329885/169	21:26	97		99		90					

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-329885/7 06/01/2018 09:23				CCV 240-329885/147 06/01/2018 19:48				CCV 240-329885/159 06/01/2018 20:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	46.7		50.0	93	46.7		50.0	93
Arsenic	41.7		40.0	104	49.7		50.0	99	49.4		50.0	99
Barium	39.6		40.0	99	48.4		50.0	97	48.3		50.0	97
Beryllium	39.3		40.0	98	46.8		50.0	94	46.0		50.0	92
Cadmium	40.9		40.0	102	46.9		50.0	94	47.1		50.0	94
Chromium	40.3		40.0	101	49.1		50.0	98	48.6		50.0	97
Cobalt	39.6		40.0	99	47.7		50.0	95	48.1		50.0	96
Copper	42.8		40.0	107	49.8		50.0	100	49.7		50.0	99
Dissolved Iron	10300		10000	103	12900		12500	103	12600		12500	101
Dissolved Lead	40.6		40.0	102	46.2		50.0	92	44.9		50.0	90
Dissolved Manganese	211		200	106	262		250	105	256		250	102
Dissolved Molybdenum	40.0		40.0	100	49.1		50.0	98	47.8		50.0	96
Dissolved Nickel	41.2		40.0	103	49.2		50.0	98	49.3		50.0	99
Dissolved Selenium	41.0		40.0	102	50.3		50.0	101	49.9		50.0	100
Dissolved Silver	39.5		40.0	99	46.9		50.0	94	46.0		50.0	92
Dissolved Thallium	38.4		40.0	96	46.4		50.0	93	46.0		50.0	92
Dissolved Vanadium	39.5		40.0	99	48.2		50.0	96	48.7		50.0	97
Zinc	40.7		40.0	102	48.7		50.0	97	48.5		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00210

Analyte	ICV 240-329885/7 06/01/2018 09:23				CCV 240-329885/133 06/01/2018 18:45				CCV 240-329885/167 06/01/2018 21:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	47.6		50.0	95	46.9		50.0	94
Arsenic	41.7		40.0	104	48.1		50.0	96	48.7		50.0	97
Barium	39.6		40.0	99	48.9		50.0	98	47.6		50.0	95
Beryllium	39.3		40.0	98	49.9		50.0	100	47.8		50.0	96
Cadmium	40.9		40.0	102	48.1		50.0	96	46.8		50.0	94
Chromium	40.3		40.0	101	48.1		50.0	96	47.9		50.0	96
Cobalt	39.6		40.0	99	46.4		50.0	93	46.5		50.0	93
Copper	42.8		40.0	107	48.5		50.0	97	49.0		50.0	98
Dissolved Iron	10300		10000	103	12400		12500	99	12400		12500	100
Dissolved Lead	40.6		40.0	102	46.8		50.0	94	46.0		50.0	92
Dissolved Manganese	211		200	106	257		250	103	253		250	101
Dissolved Molybdenum	40.0		40.0	100	49.3		50.0	99	48.9		50.0	98
Dissolved Nickel	41.2		40.0	103	47.7		50.0	95	47.8		50.0	96
Dissolved Selenium	41.0		40.0	102	49.0		50.0	98	49.1		50.0	98
Dissolved Silver	39.5		40.0	99	47.3		50.0	95	46.1		50.0	92
Dissolved Thallium	38.4		40.0	96	46.4		50.0	93	45.8		50.0	92
Dissolved Vanadium	39.5		40.0	99	47.9		50.0	96	48.0		50.0	96
Zinc	40.7		40.0	102	47.5		50.0	95	48.0		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-329885/9 06/01/2018 09:32				CCVL 240-329885/169 06/01/2018 21:26							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.90	J	2.00	95	1.83	J	2.00	92				
Arsenic	5.05		5.00	101	4.59	J	5.00	92				
Barium	4.97	J	5.00	99	4.72	J	5.00	94				
Beryllium	0.841	J	1.00	84	0.850	J	1.00	85				
Cadmium	1.03		1.00	103	0.957	J	1.00	96				
Chromium	1.99	J	2.00	100	1.90	J	2.00	95				
Cobalt	1.02		1.00	102	1.01		1.00	101				
Copper	2.12		2.00	106	2.04		2.00	102				
Dissolved Iron	111		100	111	107		100	107				
Dissolved Lead	1.03		1.00	103	0.918	J	1.00	92				
Dissolved Manganese	5.01		5.00	100	4.80	J	5.00	96				
Dissolved Molybdenum	4.92	J	5.00	98	4.71	J	5.00	94				
Dissolved Nickel	2.13		2.00	106	2.04		2.00	102				
Dissolved Selenium	5.18		5.00	104	5.30		5.00	106				
Dissolved Silver	0.951	J	1.00	95	0.915	J	1.00	92				
Dissolved Thallium	0.959	J	1.00	96	0.914	J	1.00	91				
Dissolved Vanadium	4.89	J	5.00	98	4.80	J	5.00	96				
Zinc	19.9	J	20.0	99	18.9	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-329885/8 06/01/2018 09:28		CCB 240-329885/134 06/01/2018 18:50		CCB 240-329885/148 06/01/2018 19:52		CCB 240-329885/160 06/01/2018 20:45	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-329885/168 06/01/2018 21:21							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-329885/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0550**	
Arsenic		**-0.102**	
Barium		**0.0060**	
Beryllium		**-0.0080**	
Cadmium		**0.486**	
Chromium		**0.0790**	
Cobalt		**0.0100**	
Copper		**0.402**	
Dissolved Iron	**50000**	**49745**	**99**
Dissolved Lead		**0.0500**	
Dissolved Manganese		**-0.0420**	
Dissolved Molybdenum	**1000**	**996**	**100**
Dissolved Nickel		**0.212**	
Dissolved Selenium		**-0.0060**	
Dissolved Silver		**0.0090**	
Dissolved Thallium		**0.0050**	
Dissolved Vanadium		**-0.0240**	
Zinc		**-0.773**	
Aluminum	*50000*	*50204*	*100*
Boron		*-0.487*	
Calcium	*50000*	*47913*	*96*
Lithium		*-0.227*	
Magnesium	*50000*	*49935*	*100*
Potassium	*50000*	*49225*	*98*
Sodium	*50000*	*50258*	*101*
Strontium		*0.425*	
Tin		*-0.891*	
Titanium	*1000*	*995*	*100*
Tungsten		*0.213*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-329885/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**103**	**103**
Barium	**100**	**98.5**	**98**
Beryllium	**100**	**98.4**	**98**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**99.3**	**99**
Cobalt	**100**	**101**	**101**
Copper	**100**	**101**	**101**
Dissolved Iron	**50000**	**50269**	**101**
Dissolved Lead	**100**	**98.6**	**99**
Dissolved Manganese	**100**	**100**	**100**
Dissolved Molybdenum	**1100**	**1111**	**101**
Dissolved Nickel	**100**	**99.6**	**100**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**97.4**	**97**
Dissolved Thallium	**100**	**97.5**	**97**
Dissolved Vanadium	**100**	**98.7**	**99**
Zinc	**100**	**99.9**	**100**
Aluminum	*50000*	*49935*	*100*
Boron	*100*	*92.2*	*92*
Calcium	*50000*	*48355*	*97*
Lithium	*100*	*93.6*	*94*
Magnesium	*50000*	*50094*	*100*
Potassium	*50000*	*48984*	*98*
Sodium	*50000*	*50629*	*101*
Strontium	*100*	*97.8*	*98*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1099*	*100*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-329885/139 Instrument ID: I10

Lab File ID: 139ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0480**	
Arsenic		**0.0080**	
Barium		**0.123**	
Beryllium		**0.108**	
Cadmium		**0.476**	
Chromium		**0.103**	
Cobalt		**0.112**	
Copper		**0.443**	
Dissolved Iron	**50000**	**48334**	**97**
Dissolved Lead		**0.0980**	
Dissolved Manganese		**0.516**	
Dissolved Molybdenum	**1000**	**952**	**95**
Dissolved Nickel		**0.334**	
Dissolved Selenium		**0.379**	
Dissolved Silver		**0.0200**	
Dissolved Thallium		**0.0200**	
Dissolved Vanadium		**0.0490**	
Zinc		**-0.449**	
Aluminum	*50000*	*46017*	*92*
Boron		*13.9*	
Calcium	*50000*	*47131*	*94*
Lithium		*-0.420*	
Magnesium	*50000*	*45531*	*91*
Potassium	*50000*	*46280*	*93*
Sodium	*50000*	*44879*	*90*
Strontium		*0.969*	
Tin		*-0.918*	
Titanium	*1000*	*936*	*94*
Tungsten		*0.112*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-329885/140 Instrument ID: I10

Lab File ID: 140ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**93.9**	**94**
Arsenic	**100**	**97.4**	**97**
Barium	**100**	**98.1**	**98**
Beryllium	**100**	**99.4**	**99**
Cadmium	**100**	**93.2**	**93**
Chromium	**100**	**93.2**	**93**
Cobalt	**100**	**91.8**	**92**
Copper	**100**	**94.1**	**94**
Dissolved Iron	**50000**	**48462**	**97**
Dissolved Lead	**100**	**90.0**	**90**
Dissolved Manganese	**100**	**96.8**	**97**
Dissolved Molybdenum	**1100**	**1063**	**97**
Dissolved Nickel	**100**	**93.9**	**94**
Dissolved Selenium	**100**	**97.4**	**97**
Dissolved Silver	**100**	**92.3**	**92**
Dissolved Thallium	**100**	**91.1**	**91**
Dissolved Vanadium	**100**	**93.2**	**93**
Zinc	**100**	**94.3**	**94**
Aluminum	*50000*	*46792*	*94*
Boron	*100*	*106*	*106*
Calcium	*50000*	*47815*	*96*
Lithium	*100*	*97.0*	*97*
Magnesium	*50000*	*46412*	*93*
Potassium	*50000*	*46873*	*94*
Sodium	*50000*	*46502*	*93*
Strontium	*100*	*96.7*	*97*
Tin	*100*	*94.4*	*94*
Titanium	*1100*	*1043*	*95*
Tungsten	*100*	*94.8*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/04/2018 13:02 End Date: 06/04/2018 22:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			13:02																									
ICIS 240-330082/2			13:07	X																								
STD1 240-330082/3 IC	1		13:11	X																								
STD2 240-330082/4 IC	1		13:16	X																								
STD3 240-330082/5 IC	1		13:20	X																								
STD4 240-330082/6 IC	1		13:25	X																								
ICV 240-330082/7	1		13:29	X																								
ICB 240-330082/8	1		13:33	X																								
ICVL 240-330082/9	1		13:38	X																								
ICSA 240-330082/10	1		13:42	X																								
ICSAB 240-330082/11	1		13:47	X																								
CCV 240-330082/12			13:51																									
CCB 240-330082/13			13:56																									
ZZZZZZ			14:05																									
ZZZZZZ			14:10																									
ZZZZZZ			14:14																									
ZZZZZZ			14:19																									
ZZZZZZ			14:23																									
ZZZZZZ			14:28																									
ZZZZZZ			14:32																									
ZZZZZZ			14:37																									
ZZZZZZ			14:41																									
ZZZZZZ			14:46																									
CCV 240-330082/24			14:50																									
CCB 240-330082/25			14:54																									
ZZZZZZ			14:59																									
ZZZZZZ			15:03																									
ZZZZZZ			15:08																									
ZZZZZZ			15:12																									
ZZZZZZ			15:17																									
ZZZZZZ			15:21																									
ZZZZZZ			15:26																									
ZZZZZZ			15:30																									
ZZZZZZ			15:34																									
ZZZZZZ			15:39																									
CCV 240-330082/36			15:43																									
CCB 240-330082/37			15:48																									
ZZZZZZ			15:52																									
ZZZZZZ			15:57																									
ZZZZZZ			16:01																									
ZZZZZZ			16:06																									
ZZZZZZ			16:10																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/04/2018 13:02 End Date: 06/04/2018 22:20

Lab Sample Id	D/F	Type	Time	Analytes
				Fe
ZZZZZZ			16:14	
ZZZZZZ			16:19	
ZZZZZZ			16:23	
ZZZZZZ			16:28	
ZZZZZZ			16:32	
CCV 240-330082/48			16:37	
CCB 240-330082/49			16:41	
ZZZZZZ			16:46	
ZZZZZZ			16:50	
CCV 240-330082/52			16:55	
CCB 240-330082/53			16:59	
CCVL 240-330082/54	1		17:03	X
ZZZZZZ			17:08	
ZZZZZZ			17:12	
ZZZZZZ			17:17	
ZZZZZZ			17:21	
ZZZZZZ			17:26	
ZZZZZZ			17:30	
ZZZZZZ			17:35	
ZZZZZZ			17:39	
CCV 240-330082/63	1		17:44	X
CCB 240-330082/64	1		17:48	X
240-96144-2	10	D	17:53	X
240-96144-2 SD	50	D	17:57	X
ZZZZZZ			18:01	
240-96144-2 MS	10	D	18:06	X
240-96144-2 MSD	10	D	18:10	X
CCV 240-330082/70	1		18:15	X
CCB 240-330082/71	1		18:19	X
CCVL 240-330082/72	1		18:24	X
ZZZZZZ			18:28	
ZZZZZZ			18:33	
ZZZZZZ			18:37	
ZZZZZZ			18:42	
ZZZZZZ			18:46	
ZZZZZZ			18:50	
ZZZZZZ			18:55	
ZZZZZZ			18:59	
ZZZZZZ			19:04	
CCV 240-330082/82			19:08	
CCB 240-330082/83			19:13	
ZZZZZZ			19:17	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/04/2018 13:02 End Date: 06/04/2018 22:20

Lab Sample Id	D/F	Type	Time	Analytes
				Fe
ZZZZZZ			19:22	
CCV 240-330082/86			19:26	
CCB 240-330082/87			19:30	
ZZZZZZ			19:35	
ZZZZZZ			19:39	
ZZZZZZ			19:44	
ZZZZZZ			19:48	
ZZZZZZ			19:53	
ZZZZZZ			19:57	
ZZZZZZ			20:02	
ZZZZZZ			20:06	
ZZZZZZ			20:11	
ZZZZZZ			20:15	
CCV 240-330082/98			20:19	
CCB 240-330082/99			20:24	
ZZZZZZ			20:28	
ZZZZZZ			20:33	
ZZZZZZ			20:37	
ZZZZZZ			20:42	
ZZZZZZ			20:46	
ZZZZZZ			20:51	
ZZZZZZ			20:55	
ZZZZZZ			21:00	
ZZZZZZ			21:04	
ZZZZZZ			21:08	
CCV 240-330082/110			21:13	
CCB 240-330082/111			21:17	
ZZZZZZ			21:22	
ZZZZZZ			21:26	
ZZZZZZ			21:31	
ZZZZZZ			21:35	
ZZZZZZ			21:40	
ZZZZZZ			21:44	
ZZZZZZ			21:49	
ZZZZZZ			21:53	
ZZZZZZ			21:57	
CCV 240-330082/121			22:02	
CCB 240-330082/122			22:06	
CCVL 240-330082/123			22:11	
CCV 240-330082/124			22:15	
CCB 240-330082/125			22:20	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/04/2018 13:02 End Date: 06/04/2018 22:20

Lab Sample Id	D/F	Type	Time	Analytes																							
				Fe																							

Prep Types:
D = Dissolved

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/04/2018 End Date: 06/04/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-330082/3 IC	13:11	99		101		100		98		101	
STD2 240-330082/4 IC	13:16	96		100		100		95		96	
STD3 240-330082/5 IC	13:20	95		100		98		93		95	
STD4 240-330082/6 IC	13:25	96		100		98		97		98	
ICV 240-330082/7	13:29	97		99		99		93		96	
ICB 240-330082/8	13:33	99		99		100		99		99	
ICVL 240-330082/9	13:38	102		101		102		99		99	
ICSA 240-330082/10	13:42	90		93		93		89		92	
ICSAB 240-330082/11	13:47	86		92		92		86		90	
CCVL 240-330082/54	17:03	96		93		95		96		101	
CCV 240-330082/63	17:44	85		88		88		90		91	
CCB 240-330082/64	17:48	88		87		87		93		96	
240-96144-2	17:53	86		91		93		92		96	
240-96144-2 SD	17:57	92		94		94		98		100	
240-96144-2 MS	18:06	84		92		91		89		93	
240-96144-2 MSD	18:10	85		91		92		89		93	
CCV 240-330082/70	18:15	84		87		89		87		90	
CCB 240-330082/71	18:19	85		84		87		90		93	
CCVL 240-330082/72	18:24	87		89		89		94		95	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/04/2018 End Date: 06/04/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-330082/3 IC	13:11	100		99		100					
STD2 240-330082/4 IC	13:16	96		96		95					
STD3 240-330082/5 IC	13:20	95		95		90					
STD4 240-330082/6 IC	13:25	96		96		96					
ICV 240-330082/7	13:29	96		97		93					
ICB 240-330082/8	13:33	98		99		98					
ICVL 240-330082/9	13:38	99		99		98					
ICSA 240-330082/10	13:42	93		95		89					
ICSAB 240-330082/11	13:47	93		95		92					
CCVL 240-330082/54	17:03	96		99		96					
CCV 240-330082/63	17:44	94		96		91					
CCB 240-330082/64	17:48	95		97		95					
240-96144-2	17:53	101		102		93					
240-96144-2 SD	17:57	97		99		98					
240-96144-2 MS	18:06	99		99		90					
240-96144-2 MSD	18:10	97		97		89					
CCV 240-330082/70	18:15	90		91		88					
CCB 240-330082/71	18:19	92		92		91					
CCVL 240-330082/72	18:24	95		96		94					

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-330082/7 06/04/2018 13:29				CCV 240-330082/63 06/04/2018 17:44				CCV 240-330082/70 06/04/2018 18:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Iron	10200		10000	102	12700		12500	101	12700		12500	102
Antimony	41.0		40.0	103	51.1		50.0	102	49.9		50.0	100
Arsenic	40.5		40.0	101	50.7		50.0	101	50.9		50.0	102
Barium	40.5		40.0	101	51.5		50.0	103	50.1		50.0	100
Beryllium	38.5		40.0	96	45.3		50.0	91				
Cadmium	40.8		40.0	102	49.7		50.0	99	48.8		50.0	98
Chromium	40.5		40.0	101	50.2		50.0	100	49.6		50.0	99
Cobalt	41.2		40.0	103	51.0		50.0	102	50.1		50.0	100
Copper	41.8		40.0	105	50.6		50.0	101	50.2		50.0	100
Lead	40.5		40.0	101	47.5		50.0	95	48.1		50.0	96
Manganese	208		200	104	258		250	103	254		250	102
Molybdenum	40.4		40.0	101	50.7		50.0	101	51.1		50.0	102
Nickel	40.5		40.0	101	47.0		50.0	94	47.2		50.0	94
Selenium	40.6		40.0	101	51.3		50.0	103	50.8		50.0	102
Silver	41.3		40.0	103	50.4		50.0	101	50.3		50.0	101
Thallium	39.4		40.0	98	47.3		50.0	95	48.0		50.0	96
Vanadium	40.1		40.0	100	48.8		50.0	98	48.0		50.0	96
Zinc	40.7		40.0	102	52.0		50.0	104	50.8		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-330082/9 06/04/2018 13:38				CCVL 240-330082/54 06/04/2018 17:03				CCVL 240-330082/72 06/04/2018 18:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Iron	108		100	108	109		100	109	108		100	108
Antimony	1.96	J	2.00	98	1.93	J	2.00	97	2.14		2.00	107
Arsenic	5.09		5.00	102	5.04		5.00	101	5.02		5.00	100
Barium	4.99	J	5.00	100	4.88	J	5.00	98	4.97	J	5.00	99
Beryllium	0.833	J	1.00	83	0.756	J	1.00	76	0.808	J	1.00	81
Cadmium	0.994	J	1.00	99	0.947	J	1.00	95	0.997	J	1.00	100
Chromium	1.99	J	2.00	100	1.99	J	2.00	100	2.00		2.00	100
Cobalt	1.03		1.00	103	1.05		1.00	105	1.05		1.00	105
Copper	2.05		2.00	103	2.06		2.00	103	2.00		2.00	100
Lead	1.01		1.00	101	0.943	J	1.00	94	0.975	J	1.00	98
Manganese	4.71	J	5.00	94	4.73	J	5.00	95	4.66	J	5.00	93
Molybdenum	5.16		5.00	103	4.90	J	5.00	98	4.87	J	5.00	97
Nickel	2.02		2.00	101	1.87	J	2.00	94	1.87	J	2.00	93
Selenium	5.19		5.00	104	5.16		5.00	103	5.28		5.00	106
Silver	0.998	J	1.00	100	0.967	J	1.00	97	0.956	J	1.00	96
Thallium	1.02		1.00	102	0.952	J	1.00	95	0.972	J	1.00	97
Vanadium	4.92	J	5.00	98	4.81	J	5.00	96	4.71	J	5.00	94
Zinc	20.1		20.0	100	20.6		20.0	103	20.3		20.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-330082/8 06/04/2018 13:33		CCB 240-330082/64 06/04/2018 17:48		CCB 240-330082/71 06/04/2018 18:19			
		Found	C	Found	C	Found	C	Found	C
Dissolved Iron	100	47	U	47	U	47	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-330082/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Dissolved Iron	**50000**	**48955**	**98**
Aluminum	*50000*	*48783*	*98*
Antimony		*0.0260*	
Arsenic		*-0.0330*	
Barium		*0.0110*	
Beryllium		*-0.0370*	
Boron		*-3.77*	
Cadmium		*0.460*	
Calcium	*50000*	*48529*	*97*
Chromium		*0.180*	
Cobalt		*0.0110*	
Copper		*0.547*	
Lead		*0.0420*	
Lithium		*0.424*	
Magnesium	*50000*	*48208*	*96*
Manganese		*0.106*	
Molybdenum	*1000*	*990*	*99*
Nickel		*0.202*	
Potassium	*50000*	*47835*	*96*
Selenium		*-0.224*	
Silver		*0.0120*	
Sodium	*50000*	*48982*	*98*
Strontium		*0.419*	
Thallium		*-0.0020*	
Tin		*-0.641*	
Titanium	*1000*	*991*	*99*
Tungsten		*0.179*	
Vanadium		*0.0570*	
Zinc		*3.57*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-330082/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Dissolved Iron	**50000**	**49918**	**100**
Aluminum	*50000*	*48586*	*97*
Antimony	*100*	*103*	*103*
Arsenic	*100*	*101*	*101*
Barium	*100*	*102*	*102*
Beryllium	*100*	*97.8*	*98*
Boron	*100*	*93.5*	*94*
Cadmium	*100*	*98.6*	*99*
Calcium	*50000*	*49286*	*99*
Chromium	*100*	*96.5*	*97*
Cobalt	*100*	*98.1*	*98*
Copper	*100*	*96.8*	*97*
Lead	*100*	*98.2*	*98*
Lithium	*100*	*98.1*	*98*
Magnesium	*50000*	*48466*	*97*
Manganese	*100*	*97.5*	*97*
Molybdenum	*1100*	*1100*	*100*
Nickel	*100*	*96.3*	*96*
Potassium	*50000*	*47953*	*96*
Selenium	*100*	*101*	*101*
Silver	*100*	*101*	*101*
Sodium	*50000*	*48736*	*97*
Strontium	*100*	*99.8*	*100*
Thallium	*100*	*95.9*	*96*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1100*	*100*
Tungsten	*100*	*101*	*101*
Vanadium	*100*	*95.0*	*95*
Zinc	*100*	*99.7*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/05/2018 11:44 End Date: 06/06/2018 00:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			11:44																									
ICIS 240-330236/2			11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-330236/3 IC	1		11:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-330236/4 IC	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-330236/5 IC	1		12:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-330236/6 IC	1		12:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-330236/7	1		12:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-330236/8	1		12:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-330236/9	1		12:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-330236/10	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-330236/11	1		12:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-330236/12			12:33																									
CCB 240-330236/13			12:38																									
ZZZZZZ			12:53																									
ZZZZZZ			12:58																									
ZZZZZZ			13:02																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:15																									
ZZZZZZ			13:20																									
ZZZZZZ			13:24																									
ZZZZZZ			13:29																									
ZZZZZZ			13:33																									
CCV 240-330236/24			13:38																									
CCB 240-330236/25			13:42																									
ZZZZZZ			13:47																									
ZZZZZZ			13:51																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:13																									
ZZZZZZ			14:18																									
ZZZZZZ			14:22																									
ZZZZZZ			14:27																									
CCV 240-330236/36			14:31																									
CCB 240-330236/37			14:36																									
CCVL 240-330236/38			14:40																									
ZZZZZZ			14:45																									
ZZZZZZ			14:49																									
ZZZZZZ			14:54																									
ZZZZZZ			14:58																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/05/2018 11:44 End Date: 06/06/2018 00:55

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			15:03																										
ZZZZZZ			15:07																										
ZZZZZZ			15:11																										
ZZZZZZ			15:16																										
ZZZZZZ			15:20																										
CCV 240-330236/48			15:25																										
CCB 240-330236/49			15:29																										
ZZZZZZ			15:34																										
ZZZZZZ			15:38																										
ZZZZZZ			15:43																										
ZZZZZZ			15:47																										
ZZZZZZ			15:52																										
ZZZZZZ			15:56																										
ZZZZZZ			16:00																										
ZZZZZZ			16:05																										
ZZZZZZ			16:09																										
ZZZZZZ			16:14																										
CCV 240-330236/60			16:18																										
CCB 240-330236/61			16:23																										
ZZZZZZ			16:27																										
ZZZZZZ			16:32																										
ZZZZZZ			16:36																										
ZZZZZZ			16:41																										
CCV 240-330236/66			16:45																										
CCB 240-330236/67			16:49																										
CCVL 240-330236/68			16:54																										
ZZZZZZ			16:58																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
ZZZZZZ			17:21																										
ZZZZZZ			17:25																										
ZZZZZZ			17:30																										
ZZZZZZ			17:34																										
CCV 240-330236/78			17:38																										
CCB 240-330236/79			17:43																										
ZZZZZZ			17:47																										
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/05/2018 11:44 End Date: 06/06/2018 00:55

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn							
ZZZZZZ			18:10																								
ZZZZZZ			18:14																								
ZZZZZZ			18:19																								
ZZZZZZ			18:23																								
ZZZZZZ			18:28																								
CCV 240-330236/90			18:32																								
CCB 240-330236/91			18:36																								
ZZZZZZ			18:41																								
ZZZZZZ			18:45																								
ZZZZZZ			18:50																								
ZZZZZZ			18:54																								
ZZZZZZ			18:59																								
CCV 240-330236/97	1		19:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-330236/98	1		19:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCVL 240-330236/99			19:12																								
MB 240-329145/1-A	1	R	19:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
LCS 240-329145/3-A	1	R	19:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
240-96206-2	1	D	19:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96206-2 SD	5	D	19:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			19:35																								
240-96206-2 MS	1	D	19:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
240-96206-2 MSD	1	D	19:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
240-96206-2	1	R	19:48	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
240-96206-3	1	R	19:52	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
CCV 240-330236/109	1		19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-330236/110	1		20:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96206-3	1	D	20:06	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
240-96206-4	1	R	20:10	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
240-96206-4	1	D	20:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96206-5	1	R	20:19	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
240-96206-5	1	D	20:23	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
CCV 240-330236/116	1		20:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-330236/117	1		20:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCVL 240-330236/118	1		20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
ZZZZZZ			20:41																								
ZZZZZZ			20:46																								
ZZZZZZ			20:50																								
ZZZZZZ			20:55																								
ZZZZZZ			20:59																								
ZZZZZZ			21:04																								
ZZZZZZ			21:08																								
ZZZZZZ			21:13																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/05/2018 11:44 End Date: 06/06/2018 00:55

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:17																										
CCV 240-330236/128			21:21																										
CCB 240-330236/129			21:26																										
ZZZZZZ			21:30																										
ZZZZZZ			21:35																										
ZZZZZZ			21:39																										
ZZZZZZ			21:44																										
ZZZZZZ			21:48																										
ZZZZZZ			21:53																										
ZZZZZZ			21:57																										
ZZZZZZ			22:01																										
ZZZZZZ			22:06																										
ZZZZZZ			22:10																										
CCV 240-330236/140			22:15																										
CCB 240-330236/141			22:19																										
ZZZZZZ			22:24																										
ZZZZZZ			22:28																										
CCV 240-330236/144			22:33																										
CCB 240-330236/145			22:37																										
ZZZZZZ			22:42																										
ZZZZZZ			22:46																										
ZZZZZZ			22:51																										
ZZZZZZ			22:55																										
ICSA 240-330236/150			22:59																										
ICSAB 240-330236/151			23:04																										
ZZZZZZ			23:08																										
ZZZZZZ			23:13																										
ZZZZZZ			23:17																										
ZZZZZZ			23:22																										
ZZZZZZ			23:26																										
ZZZZZZ			23:31																										
CCV 240-330236/158			23:35																										
CCB 240-330236/159			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:53																										
ZZZZZZ			23:57																										
ZZZZZZ			00:02																										
ZZZZZZ			00:06																										
ZZZZZZ			00:11																										
ZZZZZZ			00:15																										
ZZZZZZ			00:20																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/05/2018 11:44 End Date: 06/06/2018 00:55

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			00:24																											
CCV 240-330236/170			00:28																											
CCB 240-330236/171			00:33																											
CCV 240-330236/172			00:37																											
CCB 240-330236/173			00:42																											
CCVL 240-330236/174			00:46																											
CCV 240-330236/175			00:51																											
CCB 240-330236/176			00:55																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/05/2018 End Date: 06/05/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-330236/3 IC	11:53	102		106		102		102		105	
STD2 240-330236/4 IC	11:58	102		106		103		99		102	
STD3 240-330236/5 IC	12:02	102		109		106		101		100	
STD4 240-330236/6 IC	12:07	100		103		103		104		102	
ICV 240-330236/7	12:11	101		106		104		103		101	
ICB 240-330236/8	12:16	104		106		102		102		99	
ICVL 240-330236/9	12:20	105		109		106		103		103	
ICSA 240-330236/10	12:25	100		107		103		96		97	
ICSAB 240-330236/11	12:29	94		106		103		98		97	
CCV 240-330236/97	19:03	81		90		89		89		90	
CCB 240-330236/98	19:08	82		89		88		92		91	
MB 240-329145/1-A	19:17	85		94		93		94		93	
LCS 240-329145/3-A	19:21	76		91		87		90		89	
240-96206-2	19:26	76		89		86		90		86	
240-96206-2 SD	19:30	81		88		89		90		90	
240-96206-2 MS	19:39	73		86		85		87		88	
240-96206-2 MSD	19:43	74		89		87		89		89	
240-96206-2	19:48	74		88		85		90		91	
240-96206-3	19:52	75		88		87		91		90	
CCV 240-330236/109	19:57	79		89		88		89		91	
CCB 240-330236/110	20:01	84		91		91		94		94	
240-96206-3	20:06	78		92		90		93		93	
240-96206-4	20:10	76		89		89		90		88	
240-96206-4	20:15	76		87		87		89		87	
240-96206-5	20:19	76		89		88		93		91	
240-96206-5	20:23	76		88		87		93		89	
CCV 240-330236/116	20:28	80		89		87		88		87	
CCB 240-330236/117	20:32	84		89		88		91		87	
CCVL 240-330236/118	20:37	82		86		85		88		85	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/05/2018 End Date: 06/05/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-330236/3 IC	11:53	105		106		105					
STD2 240-330236/4 IC	11:58	103		102		100					
STD3 240-330236/5 IC	12:02	104		105		100					
STD4 240-330236/6 IC	12:07	101		100		102					
ICV 240-330236/7	12:11	101		100		103					
ICB 240-330236/8	12:16	99		99		101					
ICVL 240-330236/9	12:20	101		100		102					
ICSA 240-330236/10	12:25	100		98		95					
ICSAB 240-330236/11	12:29	99		99		97					
CCV 240-330236/97	19:03	92		92		90					
CCB 240-330236/98	19:08	90		90		93					
MB 240-329145/1-A	19:17	90		89		93					
LCS 240-329145/3-A	19:21	89		89		89					
240-96206-2	19:26	88		87		89					
240-96206-2 SD	19:30	87		88		91					
240-96206-2 MS	19:39	89		90		89					
240-96206-2 MSD	19:43	92		91		88					
240-96206-2	19:48	91		93		90					
240-96206-3	19:52	92		91		92					
CCV 240-330236/109	19:57	95		95		92					
CCB 240-330236/110	20:01	95		96		95					
240-96206-3	20:06	95		95		94					
240-96206-4	20:10	90		90		89					
240-96206-4	20:15	89		88		89					
240-96206-5	20:19	89		89		92					
240-96206-5	20:23	89		87		90					
CCV 240-330236/116	20:28	86		85		86					
CCB 240-330236/117	20:32	86		84		87					
CCVL 240-330236/118	20:37	83		82		85					

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-330236/7 06/05/2018 12:11				CCV 240-330236/109 06/05/2018 19:57							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.5		40.0	101	49.6		50.0	99				
Arsenic	42.1		40.0	105	49.6		50.0	99				
Barium	38.4		40.0	96	48.3		50.0	97				
Beryllium	41.1		40.0	103	48.9		50.0	98				
Cadmium	40.0		40.0	100	47.2		50.0	94				
Chromium	41.6		40.0	104	49.5		50.0	99				
Cobalt	42.4		40.0	106	50.5		50.0	101				
Dissolved Copper	43.5		40.0	109	50.9		50.0	102				
Dissolved Iron	10500		10000	105	12800		12500	102				
Dissolved Lead	43.0		40.0	107	47.5		50.0	95				
Dissolved Manganese	210		200	105	258		250	103				
Dissolved Molybdenum	40.2		40.0	100	49.2		50.0	98				
Dissolved Nickel	41.9		40.0	105	50.7		50.0	101				
Dissolved Selenium	41.9		40.0	105	49.8		50.0	100				
Dissolved Silver	39.4		40.0	99	47.6		50.0	95				
Dissolved Thallium	42.0		40.0	105	47.5		50.0	95				
Dissolved Vanadium	41.5		40.0	104	49.4		50.0	99				
Zinc	41.5		40.0	104	49.9		50.0	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-330236/7 06/05/2018 12:11				CCV 240-330236/97 06/05/2018 19:03				CCV 240-330236/116 06/05/2018 20:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.5		40.0	101	48.1		50.0	96	47.4		50.0	95
Arsenic	42.1		40.0	105	49.3		50.0	99	50.4		50.0	101
Barium	38.4		40.0	96	46.4		50.0	93	44.8		50.0	90
Beryllium	41.1		40.0	103	48.0		50.0	96	49.0		50.0	98
Cadmium	40.0		40.0	100	47.5		50.0	95	46.7		50.0	93
Chromium	41.6		40.0	104	49.7		50.0	99	49.6		50.0	99
Cobalt	42.4		40.0	106	50.5		50.0	101	50.7		50.0	101
Dissolved Copper	43.5		40.0	109	51.1		50.0	102	50.8		50.0	102
Dissolved Iron	10500		10000	105	12800		12500	102	12800		12500	103
Dissolved Lead	43.0		40.0	107	48.2		50.0	96	49.8		50.0	100
Dissolved Manganese	210		200	105	254		250	102	258		250	103
Dissolved Molybdenum	40.2		40.0	100	49.9		50.0	100	49.7		50.0	99
Dissolved Nickel	41.9		40.0	105	51.1		50.0	102	51.1		50.0	102
Dissolved Selenium	41.9		40.0	105	49.9		50.0	100	50.7		50.0	101
Dissolved Silver	39.4		40.0	99	47.6		50.0	95	47.6		50.0	95
Dissolved Thallium	42.0		40.0	105	48.2		50.0	96	49.1		50.0	98
Dissolved Vanadium	41.5		40.0	104	49.4		50.0	99	50.2		50.0	100
Zinc	41.5		40.0	104	48.5		50.0	97	49.5		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-330236/9 06/05/2018 12:20				CCVL 240-330236/118 06/05/2018 20:37							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.93	J	2.00	96	1.72	J	2.00	86				
Arsenic	5.13		5.00	103	5.06		5.00	101				
Barium	4.63	J	5.00	93	4.29	J	5.00	86				
Beryllium	0.904	J	1.00	90	0.913	J	1.00	91				
Cadmium	0.977	J	1.00	98	0.922	J	1.00	92				
Chromium	2.00		2.00	100	1.96	J	2.00	98				
Cobalt	1.02		1.00	102	1.03		1.00	103				
Dissolved Copper	2.08		2.00	104	2.12		2.00	106				
Dissolved Iron	102		100	102	98.8	J	100	99				
Dissolved Lead	1.06		1.00	106	1.03		1.00	103				
Dissolved Manganese	4.64	J	5.00	93	4.63	J	5.00	93				
Dissolved Molybdenum	5.14		5.00	103	4.67	J	5.00	93				
Dissolved Nickel	2.10		2.00	105	1.95	J	2.00	98				
Dissolved Selenium	4.79	J	5.00	96	5.40		5.00	108				
Dissolved Silver	1.01		1.00	101	0.903	J	1.00	90				
Dissolved Thallium	1.05		1.00	105	0.985	J	1.00	99				
Dissolved Vanadium	5.08		5.00	102	4.95	J	5.00	99				
Zinc	19.2	J	20.0	96	19.0	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-330236/8 06/05/2018 12:16		CCB 240-330236/98 06/05/2018 19:08		CCB 240-330236/110 06/05/2018 20:01		CCB 240-330236/117 06/05/2018 20:32	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Dissolved Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-330236/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0490**	
Arsenic		**0.228**	
Barium		**0.0080**	
Beryllium		**-0.0220**	
Cadmium		**0.537**	
Chromium		**0.153**	
Cobalt		**0.0000**	
Dissolved Copper		**0.576**	
Dissolved Iron	**50000**	**49756**	**100**
Dissolved Lead		**0.0580**	
Dissolved Manganese		**-0.0020**	
Dissolved Molybdenum	**1000**	**1031**	**103**
Dissolved Nickel		**0.215**	
Dissolved Selenium		**-0.208**	
Dissolved Silver		**0.0110**	
Dissolved Thallium		**0.0040**	
Dissolved Vanadium		**-0.0320**	
Zinc		**3.33**	
Aluminum	*50000*	*49842*	*100*
Boron		*-1.49*	
Calcium	*50000*	*50400*	*101*
Lithium		*0.379*	
Magnesium	*50000*	*49239*	*98*
Potassium	*50000*	*50305*	*101*
Sodium	*50000*	*48816*	*98*
Strontium		*0.447*	
Tin		*-0.677*	
Titanium	*1000*	*998*	*100*
Tungsten		*0.223*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-330236/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**102**	**102**
Barium	**100**	**94.5**	**95**
Beryllium	**100**	**102**	**102**
Cadmium	**100**	**98.4**	**98**
Chromium	**100**	**98.6**	**99**
Cobalt	**100**	**99.5**	**100**
Dissolved Copper	**100**	**99.0**	**99**
Dissolved Iron	**50000**	**50109**	**100**
Dissolved Lead	**100**	**102**	**102**
Dissolved Manganese	**100**	**98.1**	**98**
Dissolved Molybdenum	**1100**	**1128**	**103**
Dissolved Nickel	**100**	**100**	**100**
Dissolved Selenium	**100**	**101**	**101**
Dissolved Silver	**100**	**97.4**	**97**
Dissolved Thallium	**100**	**98.8**	**99**
Dissolved Vanadium	**100**	**98.7**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*50113*	*100*
Boron	*100*	*89.3*	*89*
Calcium	*50000*	*50510*	*101*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*49257*	*99*
Potassium	*50000*	*50362*	*101*
Sodium	*50000*	*50012*	*100*
Strontium	*100*	*101*	*101*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1102*	*100*
Tungsten	*100*	*99.1*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/11/2018 16:15 End Date: 06/12/2018 06:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			16:15																									
ICIS 240-331171/2			16:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-331171/3 IC	1		16:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-331171/4 IC	1		16:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-331171/5 IC	1		16:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-331171/6 IC	1		16:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-331171/7	1		16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-331171/8	1		16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-331171/9	1		16:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-331171/10	1		16:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-331171/11	1		16:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-331171/12			17:04																									
CCB 240-331171/13			17:08																									
CCV 240-331171/14			17:27																									
CCB 240-331171/15			17:32																									
ZZZZZZ			17:36																									
ZZZZZZ			17:41																									
ZZZZZZ			17:45																									
ZZZZZZ			17:49																									
ZZZZZZ			17:54																									
ZZZZZZ			17:58																									
ZZZZZZ			18:03																									
ZZZZZZ			18:07																									
ZZZZZZ			18:12																									
ZZZZZZ			18:16																									
CCV 240-331171/26			18:21																									
CCB 240-331171/27			18:25																									
ZZZZZZ			18:30																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									
ZZZZZZ			18:43																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:05																									
ZZZZZZ			19:10																									
CCV 240-331171/38			19:14																									
CCB 240-331171/39			19:19																									
ZZZZZZ			19:23																									
ZZZZZZ			19:28																									
ZZZZZZ			19:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/11/2018 16:15 End Date: 06/12/2018 06:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			19:37																									
ZZZZZZ			19:41																									
ZZZZZZ			19:45																									
ZZZZZZ			19:50																									
ZZZZZZ			19:54																									
ZZZZZZ			19:59																									
ZZZZZZ			20:03																									
CCV 240-331171/50			20:08																									
CCB 240-331171/51			20:12																									
ZZZZZZ			20:17																									
CCV 240-331171/53	1		20:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-331171/54	1		20:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-331171/55			20:30																									
MB 240-329558/1-A	1	R	20:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-329558/2-A	1	R	20:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96362-5	1	R	20:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96362-5 SD	5	R	20:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			20:52																									
240-96362-5 MS	1	R	20:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96362-5 MSD	1	R	21:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96362-5	1	D	21:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			21:10																									
CCV 240-331171/65	1		21:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-331171/66	1		21:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96362-5 PDS	1	D	21:23										X															
240-96362-5 MS	1	D	21:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-96362-5 MSD	1	D	21:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			21:37																									
ZZZZZZ			21:41																									
ZZZZZZ			21:46																									
ZZZZZZ			21:50																									
ZZZZZZ			21:54																									
ZZZZZZ			21:59																									
ZZZZZZ			22:03																									
CCV 240-331171/77	1		22:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-331171/78	1		22:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			22:17																									
ZZZZZZ			22:21																									
240-96362-2	1	R	22:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96362-2	1	D	22:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96362-3	1	R	22:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96362-3	1	D	22:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/11/2018 16:15 End Date: 06/12/2018 06:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
240-96362-4	1	R	22:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96362-4	1	D	22:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-331171/87	1		22:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-331171/88	1		22:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-331171/89	1		23:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			23:06																									
ZZZZZZ			23:10																									
ZZZZZZ			23:15																									
ZZZZZZ			23:19																									
ZZZZZZ			23:24																									
ZZZZZZ			23:28																									
ZZZZZZ			23:33																									
ZZZZZZ			23:37																									
ZZZZZZ			23:41																									
CCV 240-331171/99			23:46																									
CCB 240-331171/100			23:50																									
ZZZZZZ			23:55																									
ZZZZZZ			23:59																									
ZZZZZZ			00:04																									
ZZZZZZ			00:08																									
ZZZZZZ			00:13																									
ZZZZZZ			00:17																									
ZZZZZZ			00:22																									
ZZZZZZ			00:26																									
ZZZZZZ			00:31																									
ZZZZZZ			00:35																									
CCV 240-331171/111			00:40																									
CCB 240-331171/112			00:44																									
ZZZZZZ			00:49																									
ZZZZZZ			00:53																									
CCV 240-331171/115			00:57																									
CCB 240-331171/116			01:02																									
ZZZZZZ			01:06																									
ZZZZZZ			01:11																									
ZZZZZZ			01:15																									
ZZZZZZ			01:20																									
ZZZZZZ			01:24																									
ZZZZZZ			01:29																									
ZZZZZZ			01:33																									
ZZZZZZ			01:38																									
ZZZZZZ			01:42																									
ZZZZZZ			01:47																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/11/2018 16:15 End Date: 06/12/2018 06:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCV 240-331171/127			01:51																											
CCB 240-331171/128			01:55																											
ZZZZZZ			02:00																											
ZZZZZZ			02:04																											
ZZZZZZ			02:09																											
ZZZZZZ			02:13																											
ZZZZZZ			02:18																											
ZZZZZZ			02:22																											
ZZZZZZ			02:27																											
ZZZZZZ			02:31																											
ZZZZZZ			02:36																											
ZZZZZZ			02:40																											
CCV 240-331171/139			02:44																											
CCB 240-331171/140			02:49																											
ZZZZZZ			02:53																											
ZZZZZZ			02:58																											
ZZZZZZ			03:02																											
ZZZZZZ			03:07																											
ZZZZZZ			03:11																											
ZZZZZZ			03:16																											
ZZZZZZ			03:20																											
ZZZZZZ			03:25																											
ZZZZZZ			03:29																											
CCV 240-331171/150			03:34																											
CCB 240-331171/151			03:38																											
CCVL 240-331171/152			03:43																											
ZZZZZZ			03:47																											
ZZZZZZ			03:52																											
ZZZZZZ			03:56																											
ZZZZZZ			04:00																											
ICSA 240-331171/157			04:05																											
ICSAB 240-331171/158			04:09																											
ZZZZZZ			04:14																											
ZZZZZZ			04:18																											
ZZZZZZ			04:23																											
ZZZZZZ			04:27																											
ZZZZZZ			04:32																											
CCV 240-331171/164			04:36																											
CCB 240-331171/165			04:40																											
ZZZZZZ			04:45																											
ZZZZZZ			04:49																											
ZZZZZZ			04:54																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/11/2018 16:15 End Date: 06/12/2018 06:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			04:58																											
ZZZZZZ			05:03																											
ZZZZZZ			05:07																											
ZZZZZZ			05:12																											
ZZZZZZ			05:16																											
ZZZZZZ			05:21																											
ZZZZZZ			05:25																											
CCV 240-331171/176			05:30																											
CCB 240-331171/177			05:34																											
ZZZZZZ			05:38																											
ZZZZZZ			05:43																											
ZZZZZZ			05:47																											
ZZZZZZ			05:52																											
CCV 240-331171/182			05:56																											
CCB 240-331171/183			06:01																											
CCVL 240-331171/184			06:05																											
CCV 240-331171/185			06:10																											
CCB 240-331171/186			06:14																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/11/2018 End Date: 06/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-331171/3 IC	16:24	100		98		98		100		101	
STD2 240-331171/4 IC	16:28	95		95		94		95		96	
STD3 240-331171/5 IC	16:33	93		93		91		91		92	
STD4 240-331171/6 IC	16:37	93		93		93		97		97	
ICV 240-331171/7	16:41	95		97		93		94		97	
ICB 240-331171/8	16:46	98		98		98		99		102	
ICVL 240-331171/9	16:50	98		101		98		100		100	
ICSA 240-331171/10	16:55	89		93		92		90		94	
ICSAB 240-331171/11	16:59	85		94		92		91		94	
CCV 240-331171/53	20:21	75		119		114		106		107	
CCB 240-331171/54	20:25	80		116		116		109		109	
MB 240-329558/1-A	20:34	73		116		113		107		106	
LCS 240-329558/2-A	20:39	69		114		111		104		102	
240-96362-5	20:43	70		115		108		106		105	
240-96362-5 SD	20:48	74		117		114		109		113	
240-96362-5 MS	20:57	68		111		109		102		101	
240-96362-5 MSD	21:01	71		110		110		101		102	
240-96362-5	21:06	72		112		114		104		105	
CCV 240-331171/65	21:14	81		119		116		109		109	
CCB 240-331171/66	21:19	83		118		120		113		113	
240-96362-5 PDS	21:23	68		113		112		102		100	
240-96362-5 MS	21:28	68		111		111		102		102	
240-96362-5 MSD	21:32	68		113		112		102		103	
CCV 240-331171/77	22:08	85		125		128		120		119	
CCB 240-331171/78	22:12	86		130		131		124		123	
240-96362-2	22:26	84		117		115		113		110	
240-96362-2	22:30	82		114		112		109		109	
240-96362-3	22:35	81		109		110		106		105	
240-96362-3	22:39	79		113		114		107		108	
240-96362-4	22:43	79		117		116		110		109	
240-96362-4	22:48	75		118		116		110		110	
CCV 240-331171/87	22:52	90		122		119		115		115	
CCB 240-331171/88	22:57	91		120		117		118		116	
CCVL 240-331171/89	23:01	95		118		116		115		116	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/11/2018 End Date: 06/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-331171/3 IC	16:24	100		102		100					
STD2 240-331171/4 IC	16:28	98		99		97					
STD3 240-331171/5 IC	16:33	97		96		92					
STD4 240-331171/6 IC	16:37	98		100		100					
ICV 240-331171/7	16:41	98		99		96					
ICB 240-331171/8	16:46	100		101		102					
ICVL 240-331171/9	16:50	100		103		102					
ICSA 240-331171/10	16:55	96		99		94					
ICSAB 240-331171/11	16:59	96		99		94					
CCV 240-331171/53	20:21	101		101		94					
CCB 240-331171/54	20:25	100		102		97					
MB 240-329558/1-A	20:34	99		99		96					
LCS 240-329558/2-A	20:39	99		99		94					
240-96362-5	20:43	103		104		95					
240-96362-5 SD	20:48	106		106		100					
240-96362-5 MS	20:57	102		103		93					
240-96362-5 MSD	21:01	102		104		94					
240-96362-5	21:06	104		105		97					
CCV 240-331171/65	21:14	106		105		99					
CCB 240-331171/66	21:19	105		105		102					
240-96362-5 PDS	21:23	100		100		90					
240-96362-5 MS	21:28	101		102		93					
240-96362-5 MSD	21:32	102		103		93					
CCV 240-331171/77	22:08	115		115		107					
CCB 240-331171/78	22:12	113		115		109					
240-96362-2	22:26	108		109		105					
240-96362-2	22:30	105		106		103					
240-96362-3	22:35	105		105		97					
240-96362-3	22:39	105		107		97					
240-96362-4	22:43	106		109		100					
240-96362-4	22:48	108		109		100					
CCV 240-331171/87	22:52	110		112		104					
CCB 240-331171/88	22:57	112		114		107					
CCVL 240-331171/89	23:01	110		113		108					

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-331171/7 06/11/2018 16:41				CCV 240-331171/65 06/11/2018 21:14				CCV 240-331171/77 06/11/2018 22:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.6		40.0	99	49.0		50.0	98	50.0		50.0	100
Arsenic	40.1		40.0	100	47.8		50.0	96	51.2		50.0	102
Barium	39.5		40.0	99	48.2		50.0	96	48.2		50.0	96
Beryllium	39.7		40.0	99	49.0		50.0	98	49.0		50.0	98
Cadmium	40.3		40.0	101	50.3		50.0	101	50.4		50.0	101
Chromium	40.2		40.0	101	48.6		50.0	97	50.6		50.0	101
Cobalt	40.5		40.0	101	48.4		50.0	97	50.8		50.0	102
Copper	42.2		40.0	106	48.5		50.0	97	50.4		50.0	101
Dissolved Iron	9970		10000	100	12100		12500	97	12600		12500	101
Dissolved Lead	40.7		40.0	102	48.9		50.0	98	49.2		50.0	98
Dissolved Manganese	195		200	98	244		250	98	254		250	102
Dissolved Molybdenum	39.9		40.0	100	50.6		50.0	101	51.3		50.0	103
Dissolved Nickel	40.6		40.0	101	52.1		50.0	104	52.2		50.0	104
Dissolved Selenium	39.7		40.0	99	49.3		50.0	99	51.5		50.0	103
Dissolved Silver	40.2		40.0	100	49.8		50.0	100	49.9		50.0	100
Dissolved Thallium	40.3		40.0	101	48.9		50.0	98	48.9		50.0	98
Dissolved Vanadium	39.7		40.0	99	49.0		50.0	98	50.8		50.0	102
Zinc	39.8		40.0	100	49.2		50.0	98	51.3		50.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-331171/7 06/11/2018 16:41				CCV 240-331171/53 06/11/2018 20:21				CCV 240-331171/87 06/11/2018 22:52			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.6		40.0	99	48.7		50.0	97	49.1		50.0	98
Arsenic	40.1		40.0	100	47.6		50.0	95	49.4		50.0	99
Barium	39.5		40.0	99	47.9		50.0	96	48.4		50.0	97
Beryllium	39.7		40.0	99	53.7		50.0	107	48.9		50.0	98
Cadmium	40.3		40.0	101	49.3		50.0	99	49.0		50.0	98
Chromium	40.2		40.0	101	48.0		50.0	96	48.0		50.0	96
Cobalt	40.5		40.0	101	47.5		50.0	95	48.2		50.0	96
Copper	42.2		40.0	106	47.7		50.0	95	48.1		50.0	96
Dissolved Iron	9970		10000	100	12100		12500	97	12100		12500	97
Dissolved Lead	40.7		40.0	102	49.4		50.0	99	48.5		50.0	97
Dissolved Manganese	195		200	98	245		250	98	245		250	98
Dissolved Molybdenum	39.9		40.0	100	51.3		50.0	103	49.3		50.0	99
Dissolved Nickel	40.6		40.0	101	53.2		50.0	106	50.1		50.0	100
Dissolved Selenium	39.7		40.0	99	49.0		50.0	98	50.3		50.0	101
Dissolved Silver	40.2		40.0	100	49.9		50.0	100	48.6		50.0	97
Dissolved Thallium	40.3		40.0	101	49.4		50.0	99	48.4		50.0	97
Dissolved Vanadium	39.7		40.0	99	48.9		50.0	98	49.3		50.0	99
Zinc	39.8		40.0	100	47.5		50.0	95	49.3		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-331171/9 06/11/2018 16:50				CCVL 240-331171/89 06/11/2018 23:01							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.98	J	2.00	99	1.95	J	2.00	98				
Arsenic	5.00		5.00	100	5.08		5.00	102				
Barium	5.05		5.00	101	4.68	J	5.00	94				
Beryllium	0.932	J	1.00	93	0.933	J	1.00	93				
Cadmium	1.04		1.00	104	1.04		1.00	104				
Chromium	1.87	J	2.00	94	1.72	J	2.00	86				
Cobalt	1.04		1.00	104	1.03		1.00	103				
Copper	2.16		2.00	108	2.14		2.00	107				
Dissolved Iron	108		100	108	107		100	107				
Dissolved Lead	0.857	J	1.00	86	0.741	J	1.00	74				
Dissolved Manganese	4.71	J	5.00	94	4.88	J	5.00	98				
Dissolved Molybdenum	5.05		5.00	101	4.94	J	5.00	99				
Dissolved Nickel	2.10		2.00	105	1.95	J	2.00	98				
Dissolved Selenium	5.00		5.00	100	6.65		5.00	133				
Dissolved Silver	1.02		1.00	102	0.989	J	1.00	99				
Dissolved Thallium	0.998	J	1.00	100	0.964	J	1.00	96				
Dissolved Vanadium	4.93	J	5.00	99	4.80	J	5.00	96				
Zinc	20.1		20.0	100	20.5		20.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-331171/8 06/11/2018 16:46		CCB 240-331171/54 06/11/2018 20:25		CCB 240-331171/66 06/11/2018 21:19		CCB 240-331171/78 06/11/2018 22:12	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	2.20	J	2.02	J	1.82	J
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-331171/88 06/11/2018 22:57							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	1.52	J						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-331171/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0330**	
Arsenic		**-0.0970**	
Barium		**0.0360**	
Beryllium		**-0.0090**	
Cadmium		**0.345**	
Chromium		**-0.0360**	
Cobalt		**0.0100**	
Copper		**0.373**	
Dissolved Iron	**50000**	**49298**	**99**
Dissolved Lead		**-0.0830**	
Dissolved Manganese		**1.29**	
Dissolved Molybdenum	**1000**	**1034**	**103**
Dissolved Nickel		**0.116**	
Dissolved Selenium		**0.144**	
Dissolved Silver		**0.0140**	
Dissolved Thallium		**0.0010**	
Dissolved Vanadium		**-0.0530**	
Zinc		**0.704**	
Aluminum	*50000*	*50653*	*101*
Boron		*1.12*	
Calcium	*50000*	*49541*	*99*
Lithium		*-0.688*	
Magnesium	*50000*	*49803*	*100*
Potassium	*50000*	*49541*	*99*
Sodium	*50000*	*49689*	*99*
Strontium		*0.481*	
Tin		*-0.197*	
Titanium	*1000*	*976*	*98*
Tungsten		*0.141*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-331171/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**101**	**101**
Barium	**100**	**100**	**100**
Beryllium	**100**	**107**	**107**
Cadmium	**100**	**99.9**	**100**
Chromium	**100**	**98.2**	**98**
Cobalt	**100**	**99.6**	**100**
Copper	**100**	**99.8**	**100**
Dissolved Iron	**50000**	**49937**	**100**
Dissolved Lead	**100**	**101**	**101**
Dissolved Manganese	**100**	**98.1**	**98**
Dissolved Molybdenum	**1100**	**1147**	**104**
Dissolved Nickel	**100**	**102**	**102**
Dissolved Selenium	**100**	**101**	**101**
Dissolved Silver	**100**	**101**	**101**
Dissolved Thallium	**100**	**100**	**100**
Dissolved Vanadium	**100**	**99.5**	**99**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*49710*	*99*
Boron	*100*	*104*	*104*
Calcium	*50000*	*49558*	*99*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*48907*	*98*
Potassium	*50000*	*48777*	*98*
Sodium	*50000*	*48175*	*96*
Strontium	*100*	*103*	*103*
Tin	*100*	*99.8*	*100*
Titanium	*1100*	*1071*	*97*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			10:55																									
ICIS 240-331377/2			11:00	X																								
STD1 240-331377/3 IC	1		11:04	X																								
STD2 240-331377/4 IC	1		11:09	X																								
STD3 240-331377/5 IC	1		11:13	X																								
STD4 240-331377/6 IC	1		11:18	X																								
ICV 240-331377/7	1		11:22	X																								
ICB 240-331377/8	1		11:27	X																								
ICVL 240-331377/9	1		11:31	X																								
ICSA 240-331377/10	1		11:36	X																								
ICSAB 240-331377/11	1		11:40	X																								
CCV 240-331377/12			11:44																									
CCB 240-331377/13			11:49																									
CCV 240-331377/14			11:56																									
CCB 240-331377/15			12:00																									
ZZZZZZ			12:05																									
ZZZZZZ			12:09																									
ZZZZZZ			12:14																									
ZZZZZZ			12:18																									
ZZZZZZ			12:23																									
ZZZZZZ			12:27																									
ZZZZZZ			12:32																									
ZZZZZZ			12:36																									
ZZZZZZ			12:41																									
ZZZZZZ			12:46																									
CCV 240-331377/26			12:50																									
CCB 240-331377/27			12:55																									
ZZZZZZ			12:59																									
ZZZZZZ			13:04																									
ZZZZZZ			13:08																									
ZZZZZZ			13:12																									
ZZZZZZ			13:17																									
ZZZZZZ			13:21																									
ZZZZZZ			13:26																									
ZZZZZZ			13:30																									
ZZZZZZ			13:35																									
ZZZZZZ			13:39																									
CCV 240-331377/38			13:44																									
CCB 240-331377/39			13:48																									
ZZZZZZ			13:53																									
ZZZZZZ			13:57																									
ZZZZZZ			14:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			14:06																									
ZZZZZZ			14:10																									
ZZZZZZ			14:15																									
CCV 240-331377/46			14:19																									
CCB 240-331377/47			14:24																									
CCVL 240-331377/48			14:28																									
ZZZZZZ			14:33																									
ZZZZZZ			14:37																									
ZZZZZZ			14:42																									
ZZZZZZ			14:46																									
ZZZZZZ			14:50																									
ZZZZZZ			14:55																									
ZZZZZZ			14:59																									
ZZZZZZ			15:04																									
CCV 240-331377/57			15:08																									
CCB 240-331377/58			15:13																									
ZZZZZZ			15:17																									
ZZZZZZ			15:22																									
ZZZZZZ			15:26																									
ZZZZZZ			15:31																									
ZZZZZZ			15:35																									
ZZZZZZ			15:39																									
ZZZZZZ			15:44																									
ZZZZZZ			15:48																									
ZZZZZZ			15:53																									
ZZZZZZ			15:57																									
CCV 240-331377/69			16:02																									
CCB 240-331377/70			16:06																									
ZZZZZZ			16:11																									
ZZZZZZ			16:15																									
ZZZZZZ			16:20																									
CCV 240-331377/74			16:24																									
CCB 240-331377/75			16:29																									
CCVL 240-331377/76			16:33																									
ZZZZZZ			16:38																									
ZZZZZZ			16:42																									
ZZZZZZ			16:47																									
ZZZZZZ			16:51																									
ZZZZZZ			16:55																									
ZZZZZZ			17:00																									
ZZZZZZ			17:04																									
ZZZZZZ			17:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			17:13																									
CCV 240-331377/86	1		17:18	X																								
CCB 240-331377/87	1		17:22	X																								
ZZZZZZ			17:27																									
ZZZZZZ			17:31																									
ZZZZZZ			17:36																									
240-96144-2	5	R	17:40	X																								
ZZZZZZ			17:44																									
ZZZZZZ			17:49																									
ZZZZZZ			17:53																									
ZZZZZZ			17:58																									
CCV 240-331377/96	1		18:02	X																								
CCB 240-331377/97	1		18:07	X																								
CCVL 240-331377/98	1		18:11	X																								
ZZZZZZ			18:16																									
ZZZZZZ			18:20																									
ZZZZZZ			18:25																									
ZZZZZZ			18:29																									
ZZZZZZ			18:33																									
ZZZZZZ			18:38																									
ZZZZZZ			18:42																									
ZZZZZZ			18:47																									
ZZZZZZ			18:51																									
CCV 240-331377/108			18:56																									
CCB 240-331377/109			19:00																									
ZZZZZZ			19:05																									
ZZZZZZ			19:09																									
ZZZZZZ			19:14																									
ZZZZZZ			19:18																									
ZZZZZZ			19:22																									
ZZZZZZ			19:27																									
ZZZZZZ			19:31																									
ZZZZZZ			19:36																									
ZZZZZZ			19:40																									
ZZZZZZ			19:45																									
CCV 240-331377/120			19:49																									
CCB 240-331377/121			19:54																									
ZZZZZZ			19:58																									
ZZZZZZ			20:02																									
ZZZZZZ			20:07																									
ZZZZZZ			20:11																									
ZZZZZZ			20:16																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			20:20																									
ZZZZZZ			20:25																									
CCV 240-331377/129			20:29																									
CCB 240-331377/130			20:34																									
CCVL 240-331377/131			20:38																									
ZZZZZZ			20:43																									
ZZZZZZ			20:47																									
ZZZZZZ			20:52																									
ZZZZZZ			20:56																									
ZZZZZZ			21:00																									
ZZZZZZ			21:05																									
ZZZZZZ			21:09																									
ZZZZZZ			21:14																									
ZZZZZZ			21:18																									
CCV 240-331377/141			21:23																									
CCB 240-331377/142			21:27																									
CCV 240-331377/143			21:32																									
CCB 240-331377/144			21:36																									
ZZZZZZ			21:41																									
ZZZZZZ			21:45																									
ZZZZZZ			21:50																									
ZZZZZZ			21:54																									
ICSA 240-331377/149			21:58																									
ICSAB 240-331377/150			22:03																									
ZZZZZZ			22:07																									
ZZZZZZ			22:12																									
ZZZZZZ			22:16																									
ZZZZZZ			22:21																									
ZZZZZZ			22:25																									
ZZZZZZ			22:30																									
CCV 240-331377/157			22:34																									
CCB 240-331377/158			22:38																									
ZZZZZZ			22:43																									
ZZZZZZ			22:47																									
CCV 240-331377/161			22:52																									
CCB 240-331377/162			22:56																									
CCVL 240-331377/163			23:01																									
ZZZZZZ			23:05																									
ZZZZZZ			23:10																									
ZZZZZZ			23:14																									
ZZZZZZ			23:19																									
ZZZZZZ			23:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			23:28																									
ZZZZZZ			23:32																									
ZZZZZZ			23:37																									
ZZZZZZ			23:41																									
CCV 240-331377/173			23:45																									
CCB 240-331377/174			23:50																									
ZZZZZZ			23:54																									
ZZZZZZ			23:59																									
ZZZZZZ			00:03																									
ZZZZZZ			00:08																									
ZZZZZZ			00:12																									
ZZZZZZ			00:17																									
ZZZZZZ			00:21																									
ZZZZZZ			00:26																									
ZZZZZZ			00:30																									
ZZZZZZ			00:34																									
CCV 240-331377/185			00:39																									
CCB 240-331377/186			00:43																									
ZZZZZZ			00:48																									
ZZZZZZ			00:52																									
ZZZZZZ			00:57																									
ZZZZZZ			01:01																									
CCV 240-331377/191			01:06																									
CCB 240-331377/192			01:10																									
CCVL 240-331377/193			01:15																									
ZZZZZZ			01:19																									
ZZZZZZ			01:24																									
ZZZZZZ			01:28																									
ZZZZZZ			01:33																									
ZZZZZZ			01:37																									
ZZZZZZ			01:41																									
ZZZZZZ			01:46																									
ZZZZZZ			01:50																									
ZZZZZZ			01:55																									
CCV 240-331377/203			01:59																									
CCB 240-331377/204			02:04																									
ZZZZZZ			02:08																									
ZZZZZZ			02:13																									
ZZZZZZ			02:17																									
ZZZZZZ			02:22																									
ZZZZZZ			02:26																									
ZZZZZZ			02:31																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/12/2018 10:55 End Date: 06/13/2018 03:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Fe																								
ZZZZZZ			02:35																									
ZZZZZZ			02:40																									
ZZZZZZ			02:44																									
ZZZZZZ			02:48																									
CCV 240-331377/215			02:53																									
CCB 240-331377/216			02:57																									
ZZZZZZ			03:02																									
ZZZZZZ			03:06																									
ZZZZZZ			03:11																									
ZZZZZZ			03:15																									
ZZZZZZ			03:20																									
ZZZZZZ			03:24																									
CCV 240-331377/223			03:29																									
CCB 240-331377/224			03:33																									
CCVL 240-331377/225			03:38																									
CCV 240-331377/226			03:42																									
CCB 240-331377/227			03:47																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/12/2018 End Date: 06/12/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-331377/3 IC	11:04	98		98		98		98		99	
STD2 240-331377/4 IC	11:09	93		96		96		94		95	
STD3 240-331377/5 IC	11:13	93		96		96		91		94	
STD4 240-331377/6 IC	11:18	94		100		99		100		99	
ICV 240-331377/7	11:22	94		99		99		96		97	
ICB 240-331377/8	11:27	98		101		101		101		101	
ICVL 240-331377/9	11:31	97		101		100		102		103	
ICSA 240-331377/10	11:36	96		101		102		93		96	
ICSAB 240-331377/11	11:40	95		101		103		93		95	
CCV 240-331377/86	17:18	99		98		95		100		104	
CCB 240-331377/87	17:22	101		97		95		104		105	
240-96144-2	17:40	99		95		94		92		94	
CCV 240-331377/96	18:02	90		88		83		91		94	
CCB 240-331377/97	18:07	96		90		87		94		97	
CCVL 240-331377/98	18:11	97		92		89		98		102	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/12/2018 End Date: 06/12/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-331377/3 IC	11:04	99		97		100					
STD2 240-331377/4 IC	11:09	99		97		94					
STD3 240-331377/5 IC	11:13	97		97		92					
STD4 240-331377/6 IC	11:18	100		100		102					
ICV 240-331377/7	11:22	99		97		99					
ICB 240-331377/8	11:27	101		102		100					
ICVL 240-331377/9	11:31	102		102		101					
ICSA 240-331377/10	11:36	99		100		94					
ICSAB 240-331377/11	11:40	99		101		95					
CCV 240-331377/86	17:18	107		108		107					
CCB 240-331377/87	17:22	108		108		110					
240-96144-2	17:40	111		110		96					
CCV 240-331377/96	18:02	98		100		98					
CCB 240-331377/97	18:07	100		102		103					
CCVL 240-331377/98	18:11	103		104		104					

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00207

Analyte	ICV 240-331377/7 06/12/2018 11:22				CCV 240-331377/86 06/12/2018 17:18							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	9960		10000	100	12700		12500	102				
Antimony	41.0		40.0	103	51.2		50.0	102				
Arsenic	41.0		40.0	102	52.2		50.0	104				
Barium	40.7		40.0	102	52.1		50.0	104				
Beryllium	39.1		40.0	98	48.9		50.0	98				
Cadmium	40.8		40.0	102	50.3		50.0	101				
Chromium	40.4		40.0	101	50.5		50.0	101				
Cobalt	41.0		40.0	103	51.4		50.0	103				
Copper	41.9		40.0	105	51.7		50.0	103				
Lead	42.2		40.0	105	50.5		50.0	101				
Manganese	199		200	99	257		250	103				
Molybdenum	40.0		40.0	100	50.5		50.0	101				
Nickel	39.5		40.0	99	48.5		50.0	97				
Selenium	40.0		40.0	100	50.9		50.0	102				
Silver	39.4		40.0	98	49.9		50.0	100				
Thallium	41.4		40.0	103	50.9		50.0	102				
Vanadium	39.6		40.0	99	49.3		50.0	99				
Zinc	40.3		40.0	101	51.4		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-331377/7 06/12/2018 11:22				CCV 240-331377/96 06/12/2018 18:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	9960		10000	100	12600		12500	101				
Antimony	41.0		40.0	103	52.0		50.0	104				
Arsenic	41.0		40.0	102	50.9		50.0	102				
Barium	40.7		40.0	102	52.8		50.0	106				
Beryllium	39.1		40.0	98	49.1		50.0	98				
Cadmium	40.8		40.0	102	49.5		50.0	99				
Chromium	40.4		40.0	101	49.9		50.0	100				
Cobalt	41.0		40.0	103	51.0		50.0	102				
Copper	41.9		40.0	105	51.4		50.0	103				
Lead	42.2		40.0	105	50.1		50.0	100				
Manganese	199		200	99	254		250	102				
Molybdenum	40.0		40.0	100	50.3		50.0	101				
Nickel	39.5		40.0	99	47.4		50.0	95				
Selenium	40.0		40.0	100	51.4		50.0	103				
Silver	39.4		40.0	98	49.3		50.0	99				
Thallium	41.4		40.0	103	50.2		50.0	100				
Vanadium	39.6		40.0	99	49.5		50.0	99				
Zinc	40.3		40.0	101	49.7		50.0	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-331377/9 06/12/2018 11:31				CCVL 240-331377/98 06/12/2018 18:11							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	108		100	108	108		100	108				
Antimony	1.95	J	2.00	98	2.04		2.00	102				
Arsenic	5.04		5.00	101	5.26		5.00	105				
Barium	4.97	J	5.00	99	5.20		5.00	104				
Beryllium	0.891	J	1.00	89	0.875	J	1.00	88				
Cadmium	1.02		1.00	102	1.00		1.00	100				
Chromium	2.02		2.00	101	1.95	J	2.00	97				
Cobalt	1.05		1.00	105	1.06		1.00	106				
Copper	2.10		2.00	105	2.15		2.00	108				
Lead	1.00		1.00	100	1.00		1.00	100				
Manganese	4.97	J	5.00	99	5.00		5.00	100				
Molybdenum	4.91	J	5.00	98	4.98	J	5.00	100				
Nickel	1.97	J	2.00	98	1.86	J	2.00	93				
Selenium	5.73		5.00	115	5.54		5.00	111				
Silver	0.940	J	1.00	94	0.974	J	1.00	97				
Thallium	1.00		1.00	100	1.03		1.00	103				
Vanadium	4.81	J	5.00	96	4.77	J	5.00	95				
Zinc	19.8	J	20.0	99	20.3		20.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-331377/8 06/12/2018 11:27		CCB 240-331377/87 06/12/2018 17:22		CCB 240-331377/97 06/12/2018 18:07			
		Found	C	Found	C	Found	C	Found	C
Iron	100	47	U	47	U	47	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	1.08	J		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-331377/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Iron	**50000**	**47949**	**96**
Aluminum	*50000*	*49707*	*99*
Antimony		*0.0390*	
Arsenic		*0.185*	
Barium		*0.0210*	
Beryllium		*-0.0060*	
Boron		*-14.0*	
Cadmium		*0.331*	
Calcium	*50000*	*48689*	*97*
Chromium		*0.104*	
Cobalt		*0.0050*	
Copper		*0.388*	
Lead		*0.0550*	
Lithium		*-1.08*	
Magnesium	*50000*	*50212*	*100*
Manganese		*0.683*	
Molybdenum	*1000*	*1004*	*100*
Nickel		*0.156*	
Potassium	*50000*	*49725*	*99*
Selenium		*0.656*	
Silver		*0.0080*	
Sodium	*50000*	*49857*	*100*
Strontium		*0.472*	
Thallium		*0.0000*	
Tin		*-0.0790*	
Titanium	*1000*	*986*	*99*
Tungsten		*0.172*	
Vanadium		*-0.0430*	
Zinc		*0.261*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-331377/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Iron	**50000**	**48043**	**96**
Aluminum	*50000*	*49815*	*100*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*98.1*	*98*
Barium	*100*	*102*	*102*
Beryllium	*100*	*91.6*	*92*
Boron	*100*	*86.6*	*87*
Cadmium	*100*	*100*	*100*
Calcium	*50000*	*49857*	*100*
Chromium	*100*	*96.5*	*97*
Cobalt	*100*	*98.7*	*99*
Copper	*100*	*97.6*	*98*
Lead	*100*	*96.1*	*96*
Lithium	*100*	*89.5*	*89*
Magnesium	*50000*	*49857*	*100*
Manganese	*100*	*96.2*	*96*
Molybdenum	*1100*	*1109*	*101*
Nickel	*100*	*101*	*101*
Potassium	*50000*	*49827*	*100*
Selenium	*100*	*96.1*	*96*
Silver	*100*	*97.9*	*98*
Sodium	*50000*	*49777*	*100*
Strontium	*100*	*99.2*	*99*
Thallium	*100*	*95.4*	*95*
Tin	*100*	*99.7*	*100*
Titanium	*1100*	*1086*	*99*
Tungsten	*100*	*98.5*	*98*
Vanadium	*100*	*96.8*	*97*
Zinc	*100*	*98.6*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/08/2018 15:29 End Date: 06/09/2018 06:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ICIS 240-330946/1			15:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-330946/2 IC	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-330946/3 IC	1		15:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-330946/4 IC	1		15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-330946/5	1		15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-330946/6	1		16:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-330946/7	1		16:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-330946/8	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-330946/9	1		16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-330946/10			16:26																									
CCB 240-330946/11			16:33																									
ZZZZZZ			16:39																									
CCV 240-330946/13			16:46																									
CCB 240-330946/14			16:52																									
ZZZZZZ			16:58																									
ZZZZZZ			17:05																									
ZZZZZZ			17:11																									
ZZZZZZ			17:18																									
ZZZZZZ			17:24																									
ZZZZZZ			17:30																									
ZZZZZZ			17:37																									
ZZZZZZ			17:43																									
ZZZZZZ			17:50																									
ZZZZZZ			17:56																									
CCV 240-330946/25	1		18:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-330946/26	1		18:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			18:15																									
ZZZZZZ			18:22																									
ZZZZZZ			18:28																									
ZZZZZZ			18:35																									
ZZZZZZ			18:41																									
ZZZZZZ			18:48																									
MB 240-329350/1-A	1	R	18:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-329350/2-A	1	R	19:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96257-3	1	D	19:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-3 SD	5	D	19:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-330946/37	1		19:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-330946/38	1		19:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-330946/39	1		19:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			19:39																									
240-96257-3 MS	1	D	19:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96257-3 MSD	1	D	19:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/08/2018 15:29 End Date: 06/09/2018 06:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-330946/43	1		19:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-330946/44	1		20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-2	1	R	20:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-2	1	D	20:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-3	1	R	20:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-4	1	R	20:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96257-4	1	D	20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			20:43																									
ZZZZZZ			20:50																									
ZZZZZZ			20:56																									
ZZZZZZ			21:02																									
ZZZZZZ			21:09																									
CCV 240-330946/55	1		21:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-330946/56	1		21:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-330946/57	1		21:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			21:35																									
ZZZZZZ			21:41																									
ZZZZZZ			21:47																									
ZZZZZZ			21:54																									
ZZZZZZ			22:00																									
ZZZZZZ			22:07																									
ZZZZZZ			22:13																									
ZZZZZZ			22:20																									
ZZZZZZ			22:26																									
ZZZZZZ			22:32																									
CCV 240-330946/68			22:39																									
CCB 240-330946/69			22:45																									
ZZZZZZ			22:52																									
ZZZZZZ			22:58																									
ZZZZZZ			23:05																									
ZZZZZZ			23:11																									
ZZZZZZ			23:17																									
ZZZZZZ			23:24																									
ZZZZZZ			23:30																									
ZZZZZZ			23:37																									
ZZZZZZ			23:43																									
ZZZZZZ			23:50																									
CCV 240-330946/80			23:56																									
CCB 240-330946/81			00:02																									
ZZZZZZ			00:09																									
ZZZZZZ			00:15																									
ZZZZZZ			00:22																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/08/2018 15:29 End Date: 06/09/2018 06:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			00:28																									
ZZZZZZ			00:35																									
ZZZZZZ			00:41																									
ZZZZZZ			00:47																									
ZZZZZZ			00:54																									
ZZZZZZ			01:00																									
CCV 240-330946/91			01:07																									
CCB 240-330946/92			01:13																									
ZZZZZZ			01:20																									
ZZZZZZ			01:26																									
ZZZZZZ			01:32																									
ZZZZZZ			01:39																									
ZZZZZZ			01:45																									
ZZZZZZ			01:52																									
ZZZZZZ			01:58																									
ZZZZZZ			02:05																									
ZZZZZZ			02:11																									
ZZZZZZ			02:18																									
CCV 240-330946/103			02:24																									
CCB 240-330946/104			02:30																									
ZZZZZZ			02:37																									
ZZZZZZ			02:43																									
ZZZZZZ			02:50																									
ZZZZZZ			02:56																									
ZZZZZZ			03:03																									
CCV 240-330946/110			03:09																									
CCB 240-330946/111			03:15																									
ICSA 240-330946/112	1		03:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-330946/113	1		03:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			03:35																									
ZZZZZZ			03:41																									
ZZZZZZ			03:48																									
ZZZZZZ			03:54																									
ZZZZZZ			04:01																									
CCV 240-330946/119			04:07																									
CCB 240-330946/120			04:13																									
ZZZZZZ			04:20																									
ZZZZZZ			04:26																									
ZZZZZZ			04:33																									
CCV 240-330946/124	1		04:39	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-330946/125	1		04:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-330946/126	1		04:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/08/2018 15:29 End Date: 06/09/2018 06:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
MB 240-330572/1-A	1	R	04:58								X																	
LCS 240-330572/2-A	1	R	05:05								X																	
240-96206-5	1	D	05:11								X																	
240-96206-5 SD	5	D	05:18								X																	
240-96206-5 MS	1	D	05:24								X																	
240-96206-5 MSD	1	D	05:31								X																	
ZZZZZZ			05:37																									
240-96206-2	1	R	05:44								X																	
240-96206-3	1	R	05:50								X																	
240-96206-3	1	D	05:56								X																	
CCV 240-330946/137	1		06:03	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X							
CCB 240-330946/138	1		06:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-96206-4	1	R	06:16								X																	
240-96206-5	1	R	06:22								X																	
CCV 240-330946/141	1		06:29	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X							
CCB 240-330946/142	1		06:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-330946/143	1		06:41	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X							

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/08/2018 End Date: 06/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-330946/2 IC	15:35	106		100		100		99			
STD3 240-330946/3 IC	15:41	108		100		98		97			
STD4 240-330946/4 IC	15:48	114		99		101		101			
ICV 240-330946/5	15:54	116		102		102		101			
ICB 240-330946/6	16:01	118		102		102		102			
ICVL 240-330946/7	16:07	117		102		103		104			
ICSA 240-330946/8	16:13	106		95		94		93			
ICSAB 240-330946/9	16:20	105		93		93		92			
CCV 240-330946/25	18:03	107		92		94		94			
CCB 240-330946/26	18:09	111		92		95		96			
MB 240-329350/1-A	18:54	97		95		91		94			
LCS 240-329350/2-A	19:00	87		89		86		88			
240-96257-3	19:07	91		90		86		88			
240-96257-3 SD	19:13	100		91		91		93			
CCV 240-330946/37	19:20	103		92		93		93			
CCB 240-330946/38	19:26	108		93		95		97			
CCVL 240-330946/39	19:32	108		93		94		96			
240-96257-3 MS	19:45	88		87		86		85			
240-96257-3 MSD	19:52	87		87		85		85			
CCV 240-330946/43	19:58	103		92		93		94			
CCB 240-330946/44	20:04	108		92		94		96			
240-96257-2	20:11	93		92		89		92			
240-96257-2	20:17	92		90		87		90			
240-96257-3	20:24	88		87		87		88			
240-96257-4	20:30	86		87		85		86			
240-96257-4	20:37	86		86		85		86			
CCV 240-330946/55	21:15	96		85		86		88			
CCB 240-330946/56	21:22	103		86		88		91			
CCVL 240-330946/57	21:28	103		87		89		92			
ICSA 240-330946/112	03:22	84		67		71		72			
ICSAB 240-330946/113	03:28	87		69		71		72			
CCV 240-330946/124	04:39	91		70		73		75			
CCB 240-330946/125	04:46	94		71		74		77			
CCVL 240-330946/126	04:52	93		71		74		78			
MB 240-330572/1-A	04:58	84		72		72		78			
LCS 240-330572/2-A	05:05	79		71		72		74			
240-96206-5	05:11	82		71		71		76			
240-96206-5 SD	05:18	88		69		72		76			
240-96206-5 MS	05:24	77		69		70		73			

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/08/2018 End Date: 06/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
240-96206-5 MSD	05:31	78		70		70		73			
240-96206-2	05:44	79		69		70		74			
240-96206-3	05:50	80		69		69		73			
240-96206-3	05:56	78		68		68		72			
CCV 240-330946/137	06:03	85		67		70		73			
CCB 240-330946/138	06:09	91		67		72		75			
240-96206-4	06:16	81		69		69		73			
240-96206-5	06:22	82		68		69		74			
CCV 240-330946/141	06:29	87		68		71		73			
CCB 240-330946/142	06:35	92		69		73		77			
CCVL 240-330946/143	06:41	93		70		73		76			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/08/2018 End Date: 06/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-330946/2 IC	15:35	101									
STD3 240-330946/3 IC	15:41	99									
STD4 240-330946/4 IC	15:48	101									
ICV 240-330946/5	15:54	102									
ICB 240-330946/6	16:01	101									
ICVL 240-330946/7	16:07	102									
ICSA 240-330946/8	16:13	98									
ICSAB 240-330946/9	16:20	97									
CCV 240-330946/25	18:03	96									
CCB 240-330946/26	18:09	97									
MB 240-329350/1-A	18:54	101									
LCS 240-329350/2-A	19:00	98									
240-96257-3	19:07	108									
240-96257-3 SD	19:13	99									
CCV 240-330946/37	19:20	96									
CCB 240-330946/38	19:26	98									
CCVL 240-330946/39	19:32	98									
240-96257-3 MS	19:45	107									
240-96257-3 MSD	19:52	107									
CCV 240-330946/43	19:58	96									
CCB 240-330946/44	20:04	97									
240-96257-2	20:11	100									
240-96257-2	20:17	98									
240-96257-3	20:24	109									
240-96257-4	20:30	105									
240-96257-4	20:37	105									
CCV 240-330946/55	21:15	93									
CCB 240-330946/56	21:22	95									
CCVL 240-330946/57	21:28	95									
ICSA 240-330946/112	03:22	81									
ICSAB 240-330946/113	03:28	81									
CCV 240-330946/124	04:39	82									
CCB 240-330946/125	04:46	83									
CCVL 240-330946/126	04:52	83									
MB 240-330572/1-A	04:58	86									
LCS 240-330572/2-A	05:05	86									
240-96206-5	05:11	85									
240-96206-5 SD	05:18	82									
240-96206-5 MS	05:24	85									

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/08/2018 End Date: 06/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
240-96206-5 MSD	05:31	85									
240-96206-2	05:44	84									
240-96206-3	05:50	83									
240-96206-3	05:56	82									
CCV 240-330946/137	06:03	80									
CCB 240-330946/138	06:09	80									
240-96206-4	06:16	83									
240-96206-5	06:22	83									
CCV 240-330946/141	06:29	80									
CCB 240-330946/142	06:35	82									
CCVL 240-330946/143	06:41	81									

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-330946/5 06/08/2018 15:54				CCV 240-330946/25 06/08/2018 18:03				CCV 240-330946/37 06/08/2018 19:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.7		40.0	102	50.6		50.0	101	51.2		50.0	102
Arsenic	39.8		40.0	99	48.6		50.0	97	49.0		50.0	98
Barium	39.5		40.0	99	48.8		50.0	98	49.0		50.0	98
Beryllium	40.1		40.0	100	52.5		50.0	105	51.8		50.0	104
Cadmium	39.8		40.0	100	49.2		50.0	98	49.4		50.0	99
Chromium	39.5		40.0	99	49.4		50.0	99	49.9		50.0	100
Cobalt	40.1		40.0	100	49.5		50.0	99	49.9		50.0	100
Copper	41.2		40.0	103	50.0		50.0	100	50.4		50.0	101
Dissolved Iron	9850		10000	98	12000		12500	96	11800		12500	95
Dissolved Lead	40.4		40.0	101	50.1		50.0	100	50.4		50.0	101
Dissolved Manganese	200		200	100	251		250	100	248		250	99
Dissolved Molybdenum	39.3		40.0	98	51.1		50.0	102	51.3		50.0	103
Dissolved Nickel	39.5		40.0	99	50.0		50.0	100	51.2		50.0	102
Dissolved Selenium	40.0		40.0	100	48.7		50.0	97	48.8		50.0	98
Dissolved Silver	39.6		40.0	99	49.5		50.0	99	49.8		50.0	100
Dissolved Thallium	39.4		40.0	98	49.7		50.0	99	50.0		50.0	100
Dissolved Vanadium	39.2		40.0	98	49.4		50.0	99	49.4		50.0	99
Zinc	39.3		40.0	98	49.5		50.0	99	50.3		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	CCV 240-330946/43 06/08/2018 19:58				CCV 240-330946/55 06/08/2018 21:15				CCV 240-330946/124 06/09/2018 04:39			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.3		50.0	101	51.1		50.0	102	51.9		50.0	104
Arsenic	48.2		50.0	96	48.9		50.0	98	50.0		50.0	100
Barium	48.1		50.0	96	48.8		50.0	98	50.1		50.0	100
Beryllium	52.4		50.0	105	54.2		50.0	108				
Cadmium	48.9		50.0	98	49.7		50.0	99	49.6		50.0	99
Chromium	49.4		50.0	99	50.0		50.0	100	50.0		50.0	100
Cobalt	49.0		50.0	98	50.0		50.0	100	50.0		50.0	100
Copper	49.5		50.0	99	50.1		50.0	100	50.2		50.0	100
Dissolved Iron	11700		12500	93	11700		12500	94	11300		12500	90
Dissolved Lead	49.4		50.0	99	50.8		50.0	102	52.8		50.0	106
Dissolved Manganese	253		250	101	255		250	102	256		250	102
Dissolved Molybdenum	50.7		50.0	101	51.4		50.0	103	51.5		50.0	103
Dissolved Nickel	49.3		50.0	99	50.4		50.0	101	50.8		50.0	102
Dissolved Selenium	49.3		50.0	99	49.2		50.0	98	51.4		50.0	103
Dissolved Silver	49.2		50.0	98	50.1		50.0	100	50.4		50.0	101
Dissolved Thallium	49.4		50.0	99	50.7		50.0	101	52.2		50.0	104
Dissolved Vanadium	49.2		50.0	98	49.4		50.0	99	49.8		50.0	100
Zinc	48.9		50.0	98	49.7		50.0	99	49.9		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	CCV 240-330946/137 06/09/2018 06:03				CCV 240-330946/141 06/09/2018 06:29							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	52.2		50.0	104	52.0		50.0	104				
Arsenic	49.4		50.0	99	49.6		50.0	99				
Barium	49.9		50.0	100	50.3		50.0	101				
Beryllium												
Cadmium	50.7		50.0	101	50.1		50.0	100				
Chromium	50.7		50.0	101	50.0		50.0	100				
Cobalt	50.2		50.0	100	50.1		50.0	100				
Copper	50.4		50.0	101	50.4		50.0	101				
Dissolved Iron												
Dissolved Lead	53.3		50.0	107	52.5		50.0	105				
Dissolved Manganese	255		250	102	251		250	100				
Dissolved Molybdenum	52.0		50.0	104	52.1		50.0	104				
Dissolved Nickel	50.6		50.0	101	50.3		50.0	101				
Dissolved Selenium	50.0		50.0	100	48.9		50.0	98				
Dissolved Silver	50.5		50.0	101	50.1		50.0	100				
Dissolved Thallium	52.6		50.0	105	52.2		50.0	104				
Dissolved Vanadium	50.0		50.0	100	48.9		50.0	98				
Zinc	50.4		50.0	101	50.9		50.0	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-330946/7 06/08/2018 16:07				CCVL 240-330946/39 06/08/2018 19:32				CCVL 240-330946/57 06/08/2018 21:28			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.98	J	2.00	99	2.03		2.00	101	2.03		2.00	102
Arsenic	4.93	J	5.00	99	4.84	J	5.00	97	4.81	J	5.00	96
Barium	5.03		5.00	101	4.79	J	5.00	96	4.75	J	5.00	95
Beryllium	1.03		1.00	103	1.20		1.00	120	1.16		1.00	116
Cadmium	1.05		1.00	105	0.954	J	1.00	95	1.04		1.00	104
Chromium	2.01		2.00	101	1.98	J	2.00	99	2.01		2.00	101
Cobalt	1.00		1.00	100	0.951	J	1.00	95	1.02		1.00	102
Copper	1.97	J	2.00	98	1.94	J	2.00	97	1.95	J	2.00	97
Dissolved Iron	109		100	109	103		100	103	105		100	105
Dissolved Lead	1.01		1.00	101	0.987	J	1.00	99	1.03		1.00	103
Dissolved Manganese	4.94	J	5.00	99	4.96	J	5.00	99	5.12		5.00	102
Dissolved Molybdenum	5.06		5.00	101	4.86	J	5.00	97	5.14		5.00	103
Dissolved Nickel	1.91	J	2.00	95	2.02		2.00	101	2.10		2.00	105
Dissolved Selenium	5.12		5.00	102	4.69	J	5.00	94	4.79	J	5.00	96
Dissolved Silver	1.00		1.00	100	0.980	J	1.00	98	0.972	J	1.00	97
Dissolved Thallium	1.01		1.00	101	1.04		1.00	104	1.04		1.00	104
Dissolved Vanadium	4.99	J	5.00	100	4.96	J	5.00	99	4.91	J	5.00	98
Zinc	19.2	J	20.0	96	18.9	J	20.0	94	19.5	J	20.0	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	CCVL 240-330946/126 06/09/2018 04:52				CCVL 240-330946/143 06/09/2018 06:41							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.01		2.00	101	2.03		2.00	102				
Arsenic	4.99	J	5.00	100	4.87	J	5.00	97				
Barium	4.90	J	5.00	98	5.04		5.00	101				
Beryllium	1.30		1.00	130								
Cadmium	1.03		1.00	103	0.921	J	1.00	92				
Chromium	1.95	J	2.00	97	2.08		2.00	104				
Cobalt	1.02		1.00	102	1.03		1.00	103				
Copper	2.00		2.00	100	2.01		2.00	100				
Dissolved Iron	108		100	108	109		100	109				
Dissolved Lead	1.09		1.00	109	1.09		1.00	109				
Dissolved Manganese	5.42		5.00	108	5.53		5.00	111				
Dissolved Molybdenum	5.12		5.00	102	5.07		5.00	101				
Dissolved Nickel	1.94	J	2.00	97	1.97	J	2.00	98				
Dissolved Selenium	5.35		5.00	107	5.12		5.00	102				
Dissolved Silver	0.990	J	1.00	99	1.03		1.00	103				
Dissolved Thallium	1.09		1.00	109	1.12		1.00	112				
Dissolved Vanadium	4.96	J	5.00	99	5.04		5.00	101				
Zinc	19.4	J	20.0	97	19.3	J	20.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-330946/6 06/08/2018 16:01		CCB 240-330946/26 06/08/2018 18:09		CCB 240-330946/38 06/08/2018 19:26		CCB 240-330946/44 06/08/2018 20:04	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.344	J
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.201	J
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-330946/56 06/08/2018 21:22		CCB 240-330946/125 06/09/2018 04:46		CCB 240-330946/138 06/09/2018 06:09		CCB 240-330946/142 06/09/2018 06:35	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.403	J	0.322	J	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.0830	J
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-330946/8 Instrument ID: I11

Lab File ID: I11060818C.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0130**	
Arsenic		**0.0700**	
Barium		**0.0340**	
Beryllium		**0.0030**	
Cadmium		**0.304**	
Chromium		**0.0910**	
Cobalt		**0.0480**	
Copper		**0.276**	
Dissolved Iron	**50000**	**48260**	**97**
Dissolved Lead		**0.0340**	
Dissolved Manganese		**-0.216**	
Dissolved Molybdenum	**1000**	**995**	**99**
Dissolved Nickel		**0.0520**	
Dissolved Selenium		**-0.0130**	
Dissolved Silver		**-0.0020**	
Dissolved Thallium		**-0.0100**	
Dissolved Vanadium		**0.0110**	
Zinc		**-1.16**	
Aluminum	*50000*	*48700*	*97*
Boron		*-0.574*	
Calcium	*50000*	*49210*	*98*
Magnesium	*50000*	*48900*	*98*
Potassium	*50000*	*50180*	*100*
Sodium	*50000*	*49760*	*100*
Strontium		*0.416*	
Tin		*-0.214*	
Titanium	*1000*	*1014*	*101*
Tungsten		*0.115*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-330946/9 Instrument ID: I11

Lab File ID: I11060818C.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**100**	**98.3**	**98**
Barium	**100**	**96.2**	**96**
Beryllium	**100**	**100**	**100**
Cadmium	**100**	**97.2**	**97**
Chromium	**100**	**94.8**	**95**
Cobalt	**100**	**95.7**	**96**
Copper	**100**	**95.4**	**95**
Dissolved Iron	**50000**	**47610**	**95**
Dissolved Lead	**100**	**98.8**	**99**
Dissolved Manganese	**100**	**101**	**101**
Dissolved Molybdenum	**1100**	**1088**	**99**
Dissolved Nickel	**100**	**95.6**	**96**
Dissolved Selenium	**100**	**98.8**	**99**
Dissolved Silver	**100**	**96.0**	**96**
Dissolved Thallium	**100**	**97.0**	**97**
Dissolved Vanadium	**100**	**95.4**	**95**
Zinc	**100**	**97.0**	**97**
Aluminum	*50000*	*48440*	*97*
Boron	*100*	*95.7*	*96*
Calcium	*50000*	*48450*	*97*
Magnesium	*50000*	*48300*	*97*
Potassium	*50000*	*48920*	*98*
Sodium	*50000*	*49360*	*99*
Strontium	*100*	*96.7*	*97*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1106*	*101*
Tungsten	*100*	*99.5*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSA 240-330946/112 Instrument ID: I11

Lab File ID: I11060818C.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0160**	
Arsenic		**0.0500**	
Barium		**0.0060**	
Beryllium		**0.0620**	
Cadmium		**0.391**	
Chromium		**0.0730**	
Cobalt		**0.0390**	
Copper		**0.293**	
Dissolved Iron	**50000**	**43980**	**88**
Dissolved Lead		**0.0380**	
Dissolved Manganese		**-0.181**	
Dissolved Molybdenum	**1000**	**1002**	**100**
Dissolved Nickel		**0.0470**	
Dissolved Selenium		**0.0300**	
Dissolved Silver		**-0.0030**	
Dissolved Thallium		**0.0140**	
Dissolved Vanadium		**-0.0250**	
Zinc		**-1.17**	
Aluminum	*50000*	*49510*	*99*
Boron		*3.57*	
Calcium	*50000*	*55860*	*112*
Magnesium	*50000*	*48290*	*97*
Potassium	*50000*	*51070*	*102*
Sodium	*50000*	*50650*	*101*
Strontium		*0.402*	
Tin		*-0.220*	
Titanium	*1000*	*1023*	*102*
Tungsten		*0.108*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Lab Sample ID: ICSAB 240-330946/113 Instrument ID: I11

Lab File ID: I11060818C.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**104**	**104**
Arsenic	**100**	**99.8**	**100**
Barium	**100**	**97.4**	**97**
Beryllium	**100**	**115**	**115**
Cadmium	**100**	**98.5**	**99**
Chromium	**100**	**95.4**	**95**
Cobalt	**100**	**96.6**	**97**
Copper	**100**	**96.5**	**97**
Dissolved Iron	**50000**	**43860**	**88**
Dissolved Lead	**100**	**103**	**103**
Dissolved Manganese	**100**	**110**	**110**
Dissolved Molybdenum	**1100**	**1100**	**100**
Dissolved Nickel	**100**	**96.1**	**96**
Dissolved Selenium	**100**	**99.5**	**100**
Dissolved Silver	**100**	**96.9**	**97**
Dissolved Thallium	**100**	**101**	**101**
Dissolved Vanadium	**100**	**95.2**	**95**
Zinc	**100**	**98.3**	**98**
Aluminum	*50000*	*49560*	*99*
Boron	*100*	*112*	*112*
Calcium	*50000*	*52300*	*105*
Magnesium	*50000*	*48210*	*96*
Potassium	*50000*	*48450*	*97*
Sodium	*50000*	*50290*	*101*
Strontium	*100*	*98.6*	*99*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1103*	*100*
Tungsten	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/30/2018 08:21 End Date: 05/30/2018 16:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-328986/1-A			08:21	X																								
IC 240-328986/2-A			08:23	X																								
IC 240-328986/3-A			08:25	X																								
IC 240-328986/4-A			08:27	X																								
IC 240-328986/5-A			08:29	X																								
IC 240-328986/6-A			08:31	X																								
ICV 240-328986/7-A	1		08:41	X																								
ICB 240-328986/8-A	1		08:43	X																								
CRA 240-328986/9-A	1		08:45	X																								
CCV 240-328986/10-A			08:47																									
CCB 240-328986/11-A			08:49																									
CCV 240-328986/10-A			08:52																									
CCB 240-328986/11-A			08:54																									
ZZZZZZ			10:53																									
ZZZZZZ			10:55																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
ZZZZZZ			11:05																									
CCV 240-328986/10-A			11:08																									
CCB 240-328986/11-A			11:10																									
ZZZZZZ			11:22																									
ZZZZZZ			11:24																									
ZZZZZZ			11:26																									
CCV 240-328986/10-A			11:28																									
CCB 240-328986/11-A			11:30																									
ZZZZZZ			11:33																									
ZZZZZZ			11:34																									
ZZZZZZ			11:36																									
ZZZZZZ			11:38																									
ZZZZZZ			11:40																									
ZZZZZZ			11:42																									
ZZZZZZ			11:44																									
ZZZZZZ			11:47																									
ZZZZZZ			11:48																									
ZZZZZZ			11:50																									
CCV 240-328986/10-A			11:52																									
CCB 240-328986/11-A			11:54																									
ZZZZZZ			11:57																									
ZZZZZZ			11:59																									
ZZZZZZ			12:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/30/2018 08:21 End Date: 05/30/2018 16:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			12:02																									
ZZZZZZ			12:04																									
ZZZZZZ			12:06																									
ZZZZZZ			12:08																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
CCV 240-328986/10-A			12:16																									
CCB 240-328986/11-A			12:18																									
ZZZZZZ			12:20																									
ZZZZZZ			12:22																									
ZZZZZZ			12:24																									
ZZZZZZ			12:26																									
CCV 240-328986/10-A			12:28																									
CCB 240-328986/11-A			12:30																									
CCV 240-328986/10-A			13:08																									
CCB 240-328986/11-A			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
CCV 240-328986/10-A			13:29																									
CCB 240-328986/11-A			13:30																									
ZZZZZZ			13:33																									
ZZZZZZ			13:35																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
ZZZZZZ			13:43																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
CCV 240-328986/10-A			13:52																									
CCB 240-328986/11-A			13:54																									
ZZZZZZ			13:57																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/30/2018 08:21 End Date: 05/30/2018 16:40

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:06	
CCV 240-328986/10-A			14:08	
CCB 240-328986/11-A			14:10	
ZZZZZZ			14:44	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
ZZZZZZ			14:50	
CCV 240-328986/10-A			14:52	
CCB 240-328986/11-A			14:54	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
ZZZZZZ			15:05	
ZZZZZZ			15:07	
ZZZZZZ			15:08	
ZZZZZZ			15:10	
ZZZZZZ			15:12	
ZZZZZZ			15:14	
CCV 240-328986/10-A			15:16	
CCB 240-328986/11-A			15:18	
ZZZZZZ			15:20	
ZZZZZZ			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:28	
ZZZZZZ			15:30	
ZZZZZZ			15:32	
ZZZZZZ			15:34	
ZZZZZZ			15:36	
CCV 240-328986/10-A	1		15:38	X
CCB 240-328986/11-A	1		15:40	X
MB 240-328942/1-A	1	T	15:42	X
CCV 240-328986/10-A	1		15:44	X
CCB 240-328986/11-A	1		15:46	X
LCS 240-328942/2-A	1	T	15:48	X
240-96144-2	1	D	15:50	X
240-96144-2 MS	1	D	15:53	X
240-96144-2 MSD	1	D	15:55	X
240-96144-2	1	T	15:57	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/30/2018 08:21 End Date: 05/30/2018 16:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-96144-3	1	T	15:59	X																								
240-96144-3	1	D	16:01	X																								
240-96144-4	1	T	16:03	X																								
240-96144-4	1	D	16:05	X																								
240-96144-5	1	T	16:07	X																								
CCV 240-328986/10-A	1		16:08	X																								
CCB 240-328986/11-A	1		16:10	X																								
240-96144-5	1	D	16:13	X																								
240-96144-6	1	T	16:15	X																								
240-96144-6	1	D	16:17	X																								
240-96144-7	1	T	16:19	X																								
240-96144-7	1	D	16:21	X																								
240-96144-8	1	T	16:23	X																								
240-96144-8	1	D	16:24	X																								
240-96144-9	1	T	16:26	X																								
240-96144-9	1	D	16:28	X																								
ZZZZZZ			16:30																									
CCV 240-328986/10-A	1		16:32	X																								
CCB 240-328986/11-A	1		16:34	X																								
ZZZZZZ			16:37																									
CCV 240-328986/10-A			16:39																									
CCB 240-328986/11-A			16:40																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00345 Concentration Units: ug/L

CCV Source: MTHGCALW_01836

Analyte	ICV 240-328986/7-A 05/30/2018 08:41				CCV 240-328986/10-A 05/30/2018 15:38				CCV 240-328986/10-A 05/30/2018 15:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.82		5.00	96	4.78		5.00	96	4.78		5.00	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00345 Concentration Units: ug/L

CCV Source: MTHGCALW_01836

Analyte	CCV 240-328986/10-A 05/30/2018 16:08				CCV 240-328986/10-A 05/30/2018 16:32							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.57		5.00	91	5.75		5.00	115				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-328986/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01836

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.235		118	50-150
Mercury	0.200	0.235		118	50-150

Lab Sample ID: CRA 240-329437/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01838

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.233		116	50-150
Mercury	0.200	0.233		116	50-150

Lab Sample ID: CRA 240-329437/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01838

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.192	J	96	50-150
Mercury	0.200	0.192	J	96	50-150

Lab Sample ID: CRA 240-329940/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01840

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.213		107	50-150
Mercury	0.200	0.213		107	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-328986/8-A 05/30/2018 08:43		CCB 240-328986/11-A 05/30/2018 15:40		CCB 240-328986/11-A 05/30/2018 15:46		CCB 240-328986/11-A 05/30/2018 16:10	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-328986/11-A 05/30/2018 16:34							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/31/2018 12:44 End Date: 05/31/2018 16:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-329437/1-A			12:44	X																								
IC 240-329437/2-A			12:46	X																								
IC 240-329437/3-A			12:48	X																								
IC 240-329437/4-A			12:50	X																								
IC 240-329437/5-A			12:52	X																								
IC 240-329437/6-A			12:54	X																								
ICV 240-329437/7-A	1		12:57	X																								
ICB 240-329437/8-A	1		12:59	X																								
CRA 240-329437/9-A	1		13:01	X																								
CCV 240-329437/10-A			13:03																									
CCB 240-329437/11-A			13:05																									
CCV 240-329437/10-A			13:07																									
CCB 240-329437/11-A			13:09																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:47																									
ZZZZZZ			13:49																									
ZZZZZZ			13:51																									
CCV 240-329437/10-A	1		13:53	X																								
CCB 240-329437/11-A	1		13:55	X																								
ZZZZZZ			13:57																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
MB 240-329151/1-A	1	T	14:03	X																								
LCS 240-329151/2-A	1	T	14:05	X																								
240-96206-2	1	D	14:07	X																								
240-96206-2 MS	1	D	14:10	X																								
240-96206-2 MSD	1	D	14:11	X																								
240-96206-2	1	T	14:13	X																								
240-96206-3	1	T	14:16	X																								
CCV 240-329437/10-A	1		14:17	X																								
CCB 240-329437/11-A	1		14:19	X																								
240-96206-3	1	D	14:22	X																								
240-96206-4	1	T	14:24	X																								
240-96206-4	1	D	14:26	X																								
240-96206-5	1	T	14:28	X																								
240-96206-5	1	D	14:30	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/31/2018 12:44 End Date: 05/31/2018 16:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:31																									
ZZZZZZ			14:33																									
ZZZZZZ			14:35																									
ZZZZZZ			14:37																									
ZZZZZZ			14:40																									
CCV 240-329437/10-A	1		14:41	X																								
CCB 240-329437/11-A	1		14:44	X																								
ZZZZZZ			14:46																									
ZZZZZZ			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
CCV 240-329437/10-A			15:06																									
CCB 240-329437/11-A			15:08																									
ZZZZZZ			15:10																									
ZZZZZZ			15:12																									
ZZZZZZ			15:14																									
ZZZZZZ			15:16																									
ZZZZZZ			15:18																									
ZZZZZZ			15:20																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
CCV 240-329437/10-A			15:30																									
CCB 240-329437/11-A			15:32																									
ZZZZZZ			15:34																									
ZZZZZZ			15:36																									
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
CCV 240-329437/10-A			15:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 05/31/2018 12:44 End Date: 05/31/2018 16:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-329437/11-A			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
CCV 240-329437/10-A			16:13																									
CCB 240-329437/11-A			16:15																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00346 Concentration Units: ug/L

CCV Source: MTHGCALW_01838

Analyte	ICV 240-329437/7-A 05/31/2018 12:57				CCV 240-329437/10-A 05/31/2018 13:53				CCV 240-329437/10-A 05/31/2018 14:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.17		5.00	103	4.58		5.00	92	4.85		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00346 Concentration Units: ug/L

CCV Source: MTHGCALW_01838

Analyte	CCV 240-329437/10-A 05/31/2018 14:41											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.01		5.00	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-329437/8-A 05/31/2018 12:59		CCB 240-329437/11-A 05/31/2018 13:55		CCB 240-329437/11-A 05/31/2018 14:19		CCB 240-329437/11-A 05/31/2018 14:44	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/01/2018 09:22 End Date: 06/01/2018 14:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-329437/1-A			09:22	X																								
IC 240-329437/2-A			09:24	X																								
IC 240-329437/3-A			09:26	X																								
IC 240-329437/4-A			09:28	X																								
IC 240-329437/5-A			09:30	X																								
IC 240-329437/6-A			09:32	X																								
ICV 240-329437/7-A	1		09:38	X																								
ICB 240-329437/8-A	1		09:40	X																								
CRA 240-329437/9-A	1		09:42	X																								
CCV 240-329437/10-A			09:44																									
CCB 240-329437/11-A			09:46																									
CCV 240-329437/10-A			09:49																									
CCB 240-329437/11-A			09:51																									
ZZZZZZ			10:22																									
ZZZZZZ			10:24																									
ZZZZZZ			10:26																									
ZZZZZZ			10:28																									
ZZZZZZ			10:30																									
ZZZZZZ			10:32																									
ZZZZZZ			10:34																									
ZZZZZZ			10:37																									
ZZZZZZ			10:39																									
ZZZZZZ			10:41																									
CCV 240-329437/10-A			10:43																									
CCB 240-329437/11-A			10:45																									
ZZZZZZ			10:47																									
ZZZZZZ			10:49																									
ZZZZZZ			10:51																									
ZZZZZZ			10:53																									
ZZZZZZ			10:55																									
ZZZZZZ			10:57																									
CCV 240-329437/10-A	1		10:59	X																								
CCB 240-329437/11-A	1		11:00	X																								
MB 240-329352/1-A	1	T	11:18	X																								
LCS 240-329352/2-A	1	T	11:20	X																								
240-96257-3	1	D	11:22	X																								
240-96257-3 MS	1	D	11:24	X																								
CCV 240-329437/10-A	1		11:26	X																								
CCB 240-329437/11-A	1		11:28	X																								
240-96257-3 MSD	1	D	11:30	X																								
240-96257-2	1	T	11:32	X																								
240-96257-2	1	D	11:34	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/01/2018 09:22 End Date: 06/01/2018 14:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-96257-3	1	T	11:36	X																								
240-96257-4	1	T	11:38	X																								
240-96257-4	1	D	11:40	X																								
ZZZZZZ			11:42																									
ZZZZZZ			11:44																									
ZZZZZZ			11:46																									
ZZZZZZ			11:48																									
CCV 240-329437/10-A	1		11:50	X																								
CCB 240-329437/11-A	1		11:52	X																								
ZZZZZZ			11:54																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
CCV 240-329437/10-A			12:00																									
CCB 240-329437/11-A			12:02																									
CCV 240-329437/10-A			12:43																									
CCB 240-329437/11-A			12:45																									
ZZZZZZ			12:47																									
ZZZZZZ			12:49																									
CCV 240-329437/10-A			12:51																									
CCB 240-329437/11-A			12:53																									
CRA 240-329437/9-A			14:51																									
CCV 240-329437/10-A			14:53																									
CCB 240-329437/11-A			14:55																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00346 Concentration Units: ug/L

CCV Source: MTHGCALW_01838

Analyte	ICV 240-329437/7-A 06/01/2018 09:38				CCV 240-329437/10-A 06/01/2018 10:59				CCV 240-329437/10-A 06/01/2018 11:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.02		5.00	100	5.12		5.00	102	4.98		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00346 Concentration Units: ug/L

CCV Source: MTHGCALW_01838

Analyte	CCV 240-329437/10-A 06/01/2018 11:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.04		5.00	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-329437/8-A 06/01/2018 09:40		CCB 240-329437/11-A 06/01/2018 11:00		CCB 240-329437/11-A 06/01/2018 11:28		CCB 240-329437/11-A 06/01/2018 11:52	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/04/2018 12:41 End Date: 06/04/2018 16:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-329940/1-A			12:41	X																								
IC 240-329940/2-A			12:43	X																								
IC 240-329940/3-A			12:45	X																								
IC 240-329940/4-A			12:47	X																								
IC 240-329940/5-A			12:49	X																								
IC 240-329940/6-A			12:51	X																								
ICV 240-329940/7-A	1		12:54	X																								
ICB 240-329940/8-A	1		12:56	X																								
CRA 240-329940/9-A	1		12:58	X																								
CCV 240-329940/10-A			13:00																									
CCB 240-329940/11-A			13:02																									
CCV 240-329940/10-A			13:04																									
CCB 240-329940/11-A			13:06																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
ZZZZZZ			13:25																									
ZZZZZZ			13:27																									
ZZZZZZ			13:28																									
CCV 240-329940/10-A			13:30																									
CCB 240-329940/11-A			13:33																									
ZZZZZZ			13:35																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
CCV 240-329940/10-A			13:44																									
CCB 240-329940/11-A			13:46																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
CCV 240-329940/10-A			14:02																									
CCB 240-329940/11-A			14:04																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/04/2018 12:41 End Date: 06/04/2018 16:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
CCV 240-329940/10-A			14:26																									
CCB 240-329940/11-A			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
ZZZZZZ			14:49																									
CCV 240-329940/10-A			14:51																									
CCB 240-329940/11-A			14:53																									
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			14:59																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
ZZZZZZ			15:12																									
ZZZZZZ			15:14																									
CCV 240-329940/10-A			15:16																									
CCB 240-329940/11-A			15:18																									
ZZZZZZ			15:20																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
ZZZZZZ			15:32																									
ZZZZZZ			15:34																									
ZZZZZZ			15:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/04/2018 12:41 End Date: 06/04/2018 16:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:37																									
CCV 240-329940/10-A	1		15:39	X																								
CCB 240-329940/11-A	1		15:41	X																								
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
MB 240-329560/1-A	1	T	15:49	X																								
LCS 240-329560/2-A	1	T	15:51	X																								
240-96362-5	1	T	15:53	X																								
240-96362-5 MS	1	T	15:56	X																								
240-96362-5 MSD	1	T	15:58	X																								
240-96362-5	1	D	16:00	X																								
240-96362-5 MS	1	D	16:02	X																								
CCV 240-329940/10-A	1		16:04	X																								
CCB 240-329940/11-A	1		16:06	X																								
240-96362-5 MSD	1	D	16:08	X																								
ZZZZZZ			16:10																									
ZZZZZZ			16:13																									
ZZZZZZ			16:14																									
ZZZZZZ			16:16																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:24																									
ZZZZZZ			16:26																									
CCV 240-329940/10-A	1		16:28	X																								
CCB 240-329940/11-A	1		16:30	X																								
240-96362-2	1	T	16:32	X																								
240-96362-2	1	D	16:34	X																								
240-96362-3	1	T	16:36	X																								
240-96362-3	1	D	16:38	X																								
240-96362-4	1	T	16:40	X																								
240-96362-4	1	D	16:42	X																								
CCV 240-329940/10-A	1		16:44	X																								
CCB 240-329940/11-A	1		16:46	X																								

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00347 Concentration Units: ug/L

CCV Source: MTHGCALW_01840

Analyte	ICV 240-329940/7-A 06/04/2018 12:54				CCV 240-329940/10-A 06/04/2018 15:39				CCV 240-329940/10-A 06/04/2018 16:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.97		5.00	99	4.94		5.00	99	5.01		5.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

ICV Source: MTHgICV_00001_00347 Concentration Units: ug/L

CCV Source: MTHGCALW_01840

Analyte	CCV 240-329940/10-A 06/04/2018 16:28				CCV 240-329940/10-A 06/04/2018 16:44							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.05		5.00	101	4.88		5.00	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-329940/8-A 06/04/2018 12:56		CCB 240-329940/11-A 06/04/2018 15:41		CCB 240-329940/11-A 06/04/2018 16:06		CCB 240-329940/11-A 06/04/2018 16:30	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-329940/11-A 06/04/2018 16:46							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-328941/1-A	05/29/2018 14:00	328941		50	50
LCS 240-328941/2-A	05/29/2018 14:00	328941		50	50
240-96144-2	05/29/2018 14:00	328941		50	50
240-96144-2 MS	05/29/2018 14:00	328941		50	50
240-96144-2 MSD	05/29/2018 14:00	328941		50	50
240-96144-2	05/29/2018 14:00	328941		50	50
240-96144-3	05/29/2018 14:00	328941		50	50
240-96144-3	05/29/2018 14:00	328941		50	50
240-96144-4	05/29/2018 14:00	328941		50	50
240-96144-4	05/29/2018 14:00	328941		50	50
240-96144-5	05/29/2018 14:00	328941		50	50
240-96144-5	05/29/2018 14:00	328941		50	50
240-96144-6	05/29/2018 14:00	328941		50	50
240-96144-6	05/29/2018 14:00	328941		50	50
240-96144-7	05/29/2018 14:00	328941		50	50
240-96144-7	05/29/2018 14:00	328941		50	50
240-96144-8	05/29/2018 14:00	328941		50	50
240-96144-8	05/29/2018 14:00	328941		50	50
240-96144-9	05/29/2018 14:00	328941		50	50
240-96144-9	05/29/2018 14:00	328941		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-328941/1-A

Instrument Code: I10 Batch No.: 329885

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-328941/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	93.1		93	80	120		6020A
Dissolved Antimony	100	93.1		93	80	120		6020A
Arsenic	1000	990		99	80	120		6020A
Dissolved Arsenic	1000	990		99	80	120		6020A
Barium	1000	1010		101	80	120		6020A
Dissolved Barium	1000	1010		101	80	120		6020A
Beryllium	1000	955		95	80	120		6020A
Dissolved Beryllium	1000	955		95	80	120		6020A
Cadmium	1000	1030		103	80	120		6020A
Dissolved Cadmium	1000	1030		103	80	120		6020A
Cobalt	1000	981		98	80	120		6020A
Dissolved Cobalt	1000	981		98	80	120		6020A
Chromium	1000	978		98	80	120		6020A
Dissolved Chromium	1000	978		98	80	120		6020A
Copper	1000	1040		104	80	120		6020A
Dissolved Copper	1000	1040		104	80	120		6020A
Dissolved Iron	10000	9850		99	80	120		6020A
Iron	10000	9850		99	80	120		6020A
Dissolved Manganese	1000	997		100	80	120		6020A
Manganese	1000	997		100	80	120		6020A
Dissolved Molybdenum	100	92.2		92	80	120		6020A
Molybdenum	100	92.2		92	80	120		6020A
Dissolved Nickel	1000	999		100	80	120		6020A
Nickel	1000	999		100	80	120		6020A
Dissolved Lead	1000	976		98	80	120		6020A
Lead	1000	976		98	80	120		6020A
Dissolved Selenium	1000	973		97	80	120		6020A
Selenium	1000	973		97	80	120		6020A
Dissolved Thallium	250	236		95	80	120		6020A
Thallium	250	236		95	80	120		6020A
Dissolved Vanadium	1000	958		96	80	120		6020A
Dissolved Zinc	1000	1030		103	80	120		6020A
Vanadium	1000	958		96	80	120		6020A
Zinc	1000	1030		103	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-328941/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	91.9		92	80	120		6020A
Silver	100	91.9		92	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-24S-052318 MS
Lab ID: 240-96144-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	91.1		0.57	U	100	91	75-125		6020A
Dissolved Antimony	91.1		0.57	U	100	91	75-125		6020A
Arsenic	772		0.75	U	1000	77	75-125		6020A
Dissolved Arsenic	772		0.75	U	1000	77	75-125		6020A
Barium	1030		25		1000	101	75-125		6020A
Dissolved Barium	1030		25		1000	101	75-125		6020A
Beryllium	975		8.9		1000	97	75-125		6020A
Dissolved Beryllium	975		8.9		1000	97	75-125		6020A
Cadmium	991		3.7		1000	99	75-125		6020A
Dissolved Cadmium	991		3.7		1000	99	75-125		6020A
Cobalt	1200		460		1000	74	75-125	F1	6020A
Dissolved Cobalt	1200		460		1000	74	75-125	F1	6020A
Chromium	758		18		1000	74	75-125	F1	6020A
Dissolved Chromium	758		18		1000	74	75-125	F1	6020A
Copper	986		230		1000	75	75-125		6020A
Dissolved Copper	986		230		1000	75	75-125		6020A
Dissolved Iron	346000		330000		10000	112	75-125	4	6020A
Iron	346000		330000		10000	112	75-125	4	6020A
Dissolved Manganese	8210		7300		1000	90	75-125	4	6020A
Manganese	8210		7300		1000	90	75-125	4	6020A
Dissolved Molybdenum	94.6		1.1	U	100	95	75-125		6020A
Molybdenum	94.6		1.1	U	100	95	75-125		6020A
Dissolved Nickel	1420		700		1000	72	75-125	F1	6020A
Nickel	1420		700		1000	72	75-125	F1	6020A
Dissolved Lead	613		0.54	J	1000	61	75-125	F1	6020A
Lead	613		0.54	J	1000	61	75-125	F1	6020A
Dissolved Selenium	882		66		1000	82	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-24S-052318 MS
Lab ID: 240-96144-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Selenium	882		66		1000	82	75-125		6020A
Dissolved Thallium	234		1.1		250	93	75-125		6020A
Thallium	234		1.1		250	93	75-125		6020A
Dissolved Vanadium	919		170		1000	75	75-125		6020A
Dissolved Zinc	3040		2300		1000	72	75-125	F1	6020A
Vanadium	919		170		1000	75	75-125		6020A
Zinc	3040		2300		1000	72	75-125	F1	6020A
Dissolved Silver	88.8		0.053	U	100	89	75-125		6020A
Silver	88.8		0.053	U	100	89	75-125		6020A
Mercury	1.14		0.13	U	1.00	114	80-120		7470A
Mercury, Dissolved	1.14		0.13	U	1.00	114	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-24S-052318 MSD
Lab ID: 240-96144-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	95.9		100	96	75-125	5	20		6020A
Dissolved Antimony	95.9		100	96	75-125	5	20		6020A
Arsenic	806		1000	81	75-125	4	20		6020A
Dissolved Arsenic	806		1000	81	75-125	4	20		6020A
Barium	1090		1000	107	75-125	6	20		6020A
Dissolved Barium	1090		1000	107	75-125	6	20		6020A
Beryllium	1030		1000	102	75-125	5	20		6020A
Dissolved Beryllium	1030		1000	102	75-125	5	20		6020A
Cadmium	1010		1000	101	75-125	2	20		6020A
Dissolved Cadmium	1010		1000	101	75-125	2	20		6020A
Cobalt	1220		1000	76	75-125	2	20		6020A
Dissolved Cobalt	1220		1000	76	75-125	2	20		6020A
Chromium	780		1000	76	75-125	3	20		6020A
Dissolved Chromium	780		1000	76	75-125	3	20		6020A
Copper	1010		1000	78	75-125	3	20		6020A
Dissolved Copper	1010		1000	78	75-125	3	20		6020A
Dissolved Iron	351000		10000	166	75-125	2	20	4	6020A
Iron	351000		10000	166	75-125	2	20	4	6020A
Dissolved Manganese	8330		1000	102	75-125	1	20	4	6020A
Manganese	8330		1000	102	75-125	1	20	4	6020A
Dissolved Molybdenum	99.4		100	99	75-125	5	20		6020A
Molybdenum	99.4		100	99	75-125	5	20		6020A
Dissolved Nickel	1450		1000	75	75-125	2	20		6020A
Nickel	1450		1000	75	75-125	2	20		6020A
Dissolved Lead	628		1000	63	75-125	2	20	F1	6020A
Lead	628		1000	63	75-125	2	20	F1	6020A
Dissolved Selenium	896		1000	83	75-125	1	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-24S-052318 MSD
Lab ID: 240-96144-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Selenium	896		1000	83	75-125	1	20		6020A
Dissolved Thallium	247		250	99	75-125	5	20		6020A
Thallium	247		250	99	75-125	5	20		6020A
Dissolved Vanadium	946		1000	77	75-125	3	20		6020A
Dissolved Zinc	3110		1000	78	75-125	2	20		6020A
Vanadium	946		1000	77	75-125	3	20		6020A
Zinc	3110		1000	78	75-125	2	20		6020A
Dissolved Silver	92.9		100	93	75-125	5	20		6020A
Silver	92.9		100	93	75-125	5	20		6020A
Mercury	1.09		1.00	109	80-120	5	20		7470A
Mercury, Dissolved	1.09		1.00	109	80-120	5	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-24S-052318 PDS Lab ID: 240-96144-2 PDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Cobalt	1190		460		1000	74	80-120	W	6020A
Cobalt	1190		460		1000	74	80-120	W	6020A
Chromium	790		18		1000	77	80-120	W	6020A
Chromium	790		18		1000	77	80-120	W	6020A
Dissolved Nickel	1430		700		1000	73	80-120	W	6020A
Dissolved Nickel	1430		700		1000	73	80-120	W	6020A
Dissolved Lead	630		0.54	J	1000	63	80-120	W	6020A
Dissolved Lead	630		0.54	J	1000	63	80-120	W	6020A
Zinc	3030		2300		1000	70	80-120	W	6020A
Zinc	3030		2300		1000	70	80-120	W	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96144-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	25		25.2		NC		6020A
Barium	25		25.2		NC		6020A
Beryllium	8.9		9.08		NC		6020A
Beryllium	8.9		9.08		NC		6020A
Cadmium	3.7		3.98	J	NC		6020A
Cadmium	3.7		3.98	J	NC		6020A
Cobalt	460		608		33	V	6020A
Cobalt	460		608		33	V	6020A
Chromium	18		21.7		NC		6020A
Chromium	18		21.7		NC		6020A
Copper	230		278		20	V	6020A
Copper	230		278		20	V	6020A
Dissolved Iron	250000		320000		27	V	6020A
Dissolved Iron	250000		320000		27	V	6020A
Dissolved Iron	330000		349000		4.1	OK	6020A
Dissolved Manganese	7300		9300		27	V	6020A
Dissolved Manganese	7300		9300		27	V	6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	700		857		22	V	6020A
Dissolved Nickel	700		857		22	V	6020A
Dissolved Lead	0.54	J	2.3	U	NC		6020A
Dissolved Lead	0.54	J	2.3	U	NC		6020A
Dissolved Selenium	66		83.3		NC		6020A
Dissolved Selenium	66		83.3		NC		6020A
Dissolved Thallium	1.1		1.09	J	NC		6020A
Dissolved Thallium	1.1		1.09	J	NC		6020A
Dissolved Vanadium	170		208		NC		6020A
Dissolved Vanadium	170		208		NC		6020A
Zinc	2300		2870		23	V	6020A

RESULT USED FOR Fe

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96144-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Zinc	2300		2870		23	V	6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329145/1-A	05/30/2018 14:00	329145		50	50
LCS 240-329145/3-A	05/30/2018 14:00	329145		50	50
240-96206-2	05/30/2018 14:00	329145		50	50
240-96206-2 MS	05/30/2018 14:00	329145		50	50
240-96206-2 MSD	05/30/2018 14:00	329145		50	50
240-96206-2	05/30/2018 14:00	329145		50	50
240-96206-3	05/30/2018 14:00	329145		50	50
240-96206-3	05/30/2018 14:00	329145		50	50
240-96206-4	05/30/2018 14:00	329145		50	50
240-96206-4	05/30/2018 14:00	329145		50	50
240-96206-5	05/30/2018 14:00	329145		50	50
240-96206-5	05/30/2018 14:00	329145		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329145/1-A

Instrument Code: I10 Batch No.: 330236

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	4.70			6020A
7440-50-8	Dissolved Copper	4.70			6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329145/3-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	91.5		91	80	120		6020A
Dissolved Antimony	100	91.5		91	80	120		6020A
Arsenic	1000	964		96	80	120		6020A
Dissolved Arsenic	1000	964		96	80	120		6020A
Barium	1000	879		88	80	120		6020A
Dissolved Barium	1000	879		88	80	120		6020A
Beryllium	1000	984		98	80	120		6020A
Dissolved Beryllium	1000	984		98	80	120		6020A
Cadmium	1000	939		94	80	120		6020A
Dissolved Cadmium	1000	939		94	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Chromium	1000	976		98	80	120		6020A
Dissolved Chromium	1000	976		98	80	120		6020A
Copper	1000	1030		103	80	120		6020A
Dissolved Copper	1000	1030		103	80	120		6020A
Dissolved Iron	10000	10000		100	80	120		6020A
Iron	10000	10000		100	80	120		6020A
Dissolved Manganese	1000	996		100	80	120		6020A
Manganese	1000	996		100	80	120		6020A
Dissolved Molybdenum	100	95.9		96	80	120		6020A
Molybdenum	100	95.9		96	80	120		6020A
Dissolved Nickel	1000	1050		105	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Dissolved Lead	1000	1050		105	80	120		6020A
Lead	1000	1050		105	80	120		6020A
Dissolved Selenium	1000	986		99	80	120		6020A
Selenium	1000	986		99	80	120		6020A
Dissolved Thallium	250	259		104	80	120		6020A
Thallium	250	259		104	80	120		6020A
Dissolved Vanadium	1000	979		98	80	120		6020A
Dissolved Zinc	1000	986		99	80	120		6020A
Vanadium	1000	979		98	80	120		6020A
Zinc	1000	986		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329145/3-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	95.2		95	80	120		6020A
Silver	100	95.2		95	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-33S-052518 MS
Lab ID: 240-96206-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	94.9		0.57	U	100	95	75-125		6020A
Dissolved Antimony	94.9		0.57	U	100	95	75-125		6020A
Arsenic	1010		15		1000	100	75-125		6020A
Dissolved Arsenic	1010		15		1000	100	75-125		6020A
Barium	946		24		1000	92	75-125		6020A
Dissolved Barium	946		24		1000	92	75-125		6020A
Beryllium	956		0.31	U	1000	96	75-125		6020A
Dissolved Beryllium	956		0.31	U	1000	96	75-125		6020A
Cadmium	932		0.21	U	1000	93	75-125		6020A
Dissolved Cadmium	932		0.21	U	1000	93	75-125		6020A
Cobalt	1080		28		1000	105	75-125		6020A
Dissolved Cobalt	1080		28		1000	105	75-125		6020A
Chromium	995		2.3		1000	99	75-125		6020A
Dissolved Chromium	995		2.3		1000	99	75-125		6020A
Copper	1050		1.7	U	1000	105	75-125		6020A
Dissolved Copper	1050		1.7	U	1000	105	75-125		6020A
Dissolved Iron	20100		10000		10000	101	75-125		6020A
Iron	20100		10000		10000	101	75-125		6020A
Dissolved Manganese	1070		50		1000	102	75-125		6020A
Manganese	1070		50		1000	102	75-125		6020A
Dissolved Molybdenum	97.1		1.1	U	100	97	75-125		6020A
Molybdenum	97.1		1.1	U	100	97	75-125		6020A
Dissolved Nickel	1080		24		1000	105	75-125		6020A
Nickel	1080		24		1000	105	75-125		6020A
Dissolved Lead	1020		0.45	U	1000	102	75-125		6020A
Lead	1020		0.45	U	1000	102	75-125		6020A
Dissolved Selenium	1020		0.89	U	1000	102	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-33S-052518 MS
Lab ID: 240-96206-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Selenium	1020		0.89	U	1000	102	75-125		6020A
Dissolved Thallium	250		0.20	U	250	100	75-125		6020A
Thallium	250		0.20	U	250	100	75-125		6020A
Dissolved Vanadium	1000		1.7	J	1000	100	75-125		6020A
Dissolved Zinc	2960		2000		1000	97	75-125		6020A
Vanadium	1000		1.7	J	1000	100	75-125		6020A
Zinc	2960		2000		1000	97	75-125		6020A
Dissolved Silver	96.7		0.053	U	100	97	75-125		6020A
Silver	96.7		0.053	U	100	97	75-125		6020A
Mercury	0.828		0.13	U	1.00	83	80-120		7470A
Mercury, Dissolved	0.828		0.13	U	1.00	83	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-33S-052518 MSD
Lab ID: 240-96206-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	94.9		100	95	75-125	0	20		6020A
Dissolved Antimony	94.9		100	95	75-125	0	20		6020A
Arsenic	976		1000	96	75-125	4	20		6020A
Dissolved Arsenic	976		1000	96	75-125	4	20		6020A
Barium	939		1000	91	75-125	1	20		6020A
Dissolved Barium	939		1000	91	75-125	1	20		6020A
Beryllium	936		1000	94	75-125	2	20		6020A
Dissolved Beryllium	936		1000	94	75-125	2	20		6020A
Cadmium	926		1000	93	75-125	1	20		6020A
Dissolved Cadmium	926		1000	93	75-125	1	20		6020A
Cobalt	1040		1000	101	75-125	4	20		6020A
Dissolved Cobalt	1040		1000	101	75-125	4	20		6020A
Chromium	964		1000	96	75-125	3	20		6020A
Dissolved Chromium	964		1000	96	75-125	3	20		6020A
Copper	1000		1000	100	75-125	4	20		6020A
Dissolved Copper	1000		1000	100	75-125	4	20		6020A
Dissolved Iron	19200		10000	93	75-125	4	20		6020A
Iron	19200		10000	93	75-125	4	20		6020A
Dissolved Manganese	1020		1000	97	75-125	5	20		6020A
Manganese	1020		1000	97	75-125	5	20		6020A
Dissolved Molybdenum	96.5		100	97	75-125	1	20		6020A
Molybdenum	96.5		100	97	75-125	1	20		6020A
Dissolved Nickel	1050		1000	102	75-125	3	20		6020A
Nickel	1050		1000	102	75-125	3	20		6020A
Dissolved Lead	1010		1000	101	75-125	1	20		6020A
Lead	1010		1000	101	75-125	1	20		6020A
Dissolved Selenium	973		1000	97	75-125	4	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-33S-052518 MSD
Lab ID: 240-96206-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Selenium	973		1000	97	75-125	4	20		6020A
Dissolved Thallium	256		250	102	75-125	2	20		6020A
Thallium	256		250	102	75-125	2	20		6020A
Dissolved Vanadium	979		1000	98	75-125	2	20		6020A
Dissolved Zinc	2870		1000	89	75-125	3	20		6020A
Vanadium	979		1000	98	75-125	2	20		6020A
Zinc	2870		1000	89	75-125	3	20		6020A
Dissolved Silver	97.0		100	97	75-125	0	20		6020A
Silver	97.0		100	97	75-125	0	20		6020A
Mercury	0.773		1.00	77	80-120	7	20	F1	7470A
Mercury, Dissolved	0.773		1.00	77	80-120	7	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96206-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	15		15.6	J	NC		6020A
Arsenic	15		15.6	J	NC		6020A
Barium	24		23.9	J	NC		6020A
Barium	24		23.9	J	NC		6020A
Beryllium	0.31	U	1.5	U	NC		6020A
Beryllium	0.31	U	1.5	U	NC		6020A
Cadmium	0.21	U	1.1	U	NC		6020A
Cadmium	0.21	U	1.1	U	NC		6020A
Cobalt	28		28.5		NC		6020A
Cobalt	28		28.5		NC		6020A
Chromium	2.3		4.9	U	NC		6020A
Chromium	2.3		4.9	U	NC		6020A
Dissolved Copper	1.7	U	8.5	U	NC		6020A
Dissolved Copper	1.7	U	8.5	U	NC		6020A
Dissolved Iron	10000		10100		NC		6020A
Dissolved Iron	10000		10100		NC		6020A
Dissolved Manganese	50		49.7		NC		6020A
Dissolved Manganese	50		49.7		NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	24		23.0		NC		6020A
Dissolved Nickel	24		23.0		NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	1.7	J	4.1	U	NC		6020A
Dissolved Vanadium	1.7	J	4.1	U	NC		6020A
Zinc	2000		1920		NC		6020A
Zinc	2000		1920		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96206-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.053	U	0.27	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329350/1-A	05/31/2018 14:00	329350		50	50
LCS 240-329350/2-A	05/31/2018 14:00	329350		50	50
240-96257-3	05/31/2018 14:00	329350		50	50
240-96257-3 MS	05/31/2018 14:00	329350		50	50
240-96257-3 MSD	05/31/2018 14:00	329350		50	50
240-96257-2	05/31/2018 14:00	329350		50	50
240-96257-2	05/31/2018 14:00	329350		50	50
240-96257-3	05/31/2018 14:00	329350		50	50
240-96257-4	05/31/2018 14:00	329350		50	50
240-96257-4	05/31/2018 14:00	329350		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329350/1-A

Instrument Code: I11 Batch No.: 330946

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.96	J		6020A
7440-50-8	Dissolved Copper	1.96	J		6020A
7439-89-6	Dissolved Iron	53.5	J		6020A
7439-89-6	Iron	53.5	J		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	22.3			6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	22.3			6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329350/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	104		104	80	120		6020A
Dissolved Antimony	100	104		104	80	120		6020A
Arsenic	1000	966		97	80	120		6020A
Dissolved Arsenic	1000	966		97	80	120		6020A
Barium	1000	976		98	80	120		6020A
Dissolved Barium	1000	976		98	80	120		6020A
Beryllium	1000	1130		113	80	120		6020A
Dissolved Beryllium	1000	1130		113	80	120		6020A
Cadmium	1000	1040		104	80	120		6020A
Dissolved Cadmium	1000	1040		104	80	120		6020A
Cobalt	1000	1060		106	80	120		6020A
Dissolved Cobalt	1000	1060		106	80	120		6020A
Chromium	1000	1030		103	80	120		6020A
Dissolved Chromium	1000	1030		103	80	120		6020A
Copper	1000	1060		106	80	120		6020A
Dissolved Copper	1000	1060		106	80	120		6020A
Dissolved Iron	10000	9750		98	80	120		6020A
Iron	10000	9750		98	80	120		6020A
Dissolved Manganese	1000	1010		101	80	120		6020A
Manganese	1000	1010		101	80	120		6020A
Dissolved Molybdenum	100	102		102	80	120		6020A
Molybdenum	100	102		102	80	120		6020A
Dissolved Nickel	1000	1040		104	80	120		6020A
Nickel	1000	1040		104	80	120		6020A
Dissolved Lead	1000	932		93	80	120		6020A
Lead	1000	932		93	80	120		6020A
Dissolved Selenium	1000	955		96	80	120		6020A
Selenium	1000	955		96	80	120		6020A
Dissolved Thallium	250	232		93	80	120		6020A
Thallium	250	232		93	80	120		6020A
Dissolved Vanadium	1000	994		99	80	120		6020A
Dissolved Zinc	1000	1050		105	80	120		6020A
Vanadium	1000	994		99	80	120		6020A
Zinc	1000	1050		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329350/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	107		107	80	120		6020A
Silver	100	107		107	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-54I-052918 MS
Lab ID: 240-96257-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	103		0.57	U	100	103	75-125		6020A
Dissolved Antimony	103		0.57	U	100	103	75-125		6020A
Arsenic	968		4.3	J	1000	96	75-125		6020A
Dissolved Arsenic	968		4.3	J	1000	96	75-125		6020A
Barium	943		25		1000	92	75-125		6020A
Dissolved Barium	943		25		1000	92	75-125		6020A
Beryllium	1100		1.3		1000	110	75-125		6020A
Dissolved Beryllium	1100		1.3		1000	110	75-125		6020A
Cadmium	1060		40		1000	102	75-125		6020A
Dissolved Cadmium	1060		40		1000	102	75-125		6020A
Cobalt	1180		170		1000	102	75-125		6020A
Dissolved Cobalt	1180		170		1000	102	75-125		6020A
Chromium	992		5.2		1000	99	75-125		6020A
Dissolved Chromium	992		5.2		1000	99	75-125		6020A
Copper	1010		1.7	U	1000	101	75-125		6020A
Dissolved Copper	1010		1.7	U	1000	101	75-125		6020A
Dissolved Iron	14000		5000		10000	90	75-125		6020A
Iron	14000		5000		10000	90	75-125		6020A
Dissolved Manganese	4030		3000		1000	99	75-125		6020A
Manganese	4030		3000		1000	99	75-125		6020A
Dissolved Molybdenum	101		1.1	U	100	101	75-125		6020A
Molybdenum	101		1.1	U	100	101	75-125		6020A
Dissolved Nickel	1130		140		1000	99	75-125		6020A
Nickel	1130		140		1000	99	75-125		6020A
Dissolved Lead	799		0.45	U	1000	80	75-125		6020A
Lead	799		0.45	U	1000	80	75-125		6020A
Dissolved Selenium	964		6.0		1000	96	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-54I-052918 MS
Lab ID: 240-96257-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Selenium	964		6.0		1000	96	75-125		6020A
Dissolved Thallium	199		0.27	J	250	79	75-125		6020A
Thallium	199		0.27	J	250	79	75-125		6020A
Dissolved Vanadium	972		0.82	U	1000	97	75-125		6020A
Dissolved Zinc	2310		1300		1000	98	75-125		6020A
Vanadium	972		0.82	U	1000	97	75-125		6020A
Zinc	2310		1300		1000	98	75-125		6020A
Dissolved Silver	105		0.053	U	100	105	75-125		6020A
Silver	105		0.053	U	100	105	75-125		6020A
Mercury	0.877		0.13	U	1.00	88	80-120		7470A
Mercury, Dissolved	0.877		0.13	U	1.00	88	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-54I-052918 MSD
Lab ID: 240-96257-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	106		100	106	75-125	3	20		6020A
Dissolved Antimony	106		100	106	75-125	3	20		6020A
Arsenic	999		1000	99	75-125	3	20		6020A
Dissolved Arsenic	999		1000	99	75-125	3	20		6020A
Barium	972		1000	95	75-125	3	20		6020A
Dissolved Barium	972		1000	95	75-125	3	20		6020A
Beryllium	1130		1000	113	75-125	3	20		6020A
Dissolved Beryllium	1130		1000	113	75-125	3	20		6020A
Cadmium	1090		1000	105	75-125	3	20		6020A
Dissolved Cadmium	1090		1000	105	75-125	3	20		6020A
Cobalt	1220		1000	106	75-125	4	20		6020A
Dissolved Cobalt	1220		1000	106	75-125	4	20		6020A
Chromium	1030		1000	102	75-125	4	20		6020A
Dissolved Chromium	1030		1000	102	75-125	4	20		6020A
Copper	1040		1000	104	75-125	3	20		6020A
Dissolved Copper	1040		1000	104	75-125	3	20		6020A
Dissolved Iron	14300		10000	93	75-125	2	20		6020A
Iron	14300		10000	93	75-125	2	20		6020A
Dissolved Manganese	4110		1000	107	75-125	2	20		6020A
Manganese	4110		1000	107	75-125	2	20		6020A
Dissolved Molybdenum	104		100	104	75-125	3	20		6020A
Molybdenum	104		100	104	75-125	3	20		6020A
Dissolved Nickel	1170		1000	102	75-125	3	20		6020A
Nickel	1170		1000	102	75-125	3	20		6020A
Dissolved Lead	816		1000	82	75-125	2	20		6020A
Lead	816		1000	82	75-125	2	20		6020A
Dissolved Selenium	990		1000	98	75-125	3	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-54I-052918 MSD
Lab ID: 240-96257-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Selenium	990		1000	98	75-125	3	20		6020A
Dissolved Thallium	202		250	81	75-125	1	20		6020A
Thallium	202		250	81	75-125	1	20		6020A
Dissolved Vanadium	1010		1000	101	75-125	4	20		6020A
Dissolved Zinc	2370		1000	103	75-125	2	20		6020A
Vanadium	1010		1000	101	75-125	4	20		6020A
Zinc	2370		1000	103	75-125	2	20		6020A
Dissolved Silver	107		100	107	75-125	2	20		6020A
Silver	107		100	107	75-125	2	20		6020A
Mercury	0.945		1.00	95	80-120	8	20		7470A
Mercury, Dissolved	0.945		1.00	95	80-120	8	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96257-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	4.3	J	4.14	J	NC		6020A
Arsenic	4.3	J	4.14	J	NC		6020A
Barium	25		26.8		NC		6020A
Barium	25		26.8		NC		6020A
Beryllium	1.3		2.11	J	NC		6020A
Beryllium	1.3		2.11	J	NC		6020A
Cadmium	40		39.4		NC		6020A
Cadmium	40		39.4		NC		6020A
Cobalt	170		170		2.2		6020A
Cobalt	170		170		2.2		6020A
Chromium	5.2		5.16	J	NC		6020A
Chromium	5.2		5.16	J	NC		6020A
Copper	1.7	U	8.5	U	NC		6020A
Copper	1.7	U	8.5	U	NC		6020A
Dissolved Iron	5000		5500		NC		6020A
Dissolved Iron	5000		5500		NC		6020A
Dissolved Manganese	3000		3210		5.4		6020A
Dissolved Manganese	3000		3210		5.4		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	140		148		NC		6020A
Dissolved Nickel	140		148		NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Selenium	6.0		5.51	J	NC		6020A
Dissolved Selenium	6.0		5.51	J	NC		6020A
Dissolved Thallium	0.27	J	1.0	U	NC		6020A
Dissolved Thallium	0.27	J	1.0	U	NC		6020A
Dissolved Vanadium	0.82	U	4.1	U	NC		6020A
Dissolved Vanadium	0.82	U	4.1	U	NC		6020A
Zinc	1300		1340		NC		6020A
Zinc	1300		1340		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96257-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.053	U	0.27	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-330572/1-A	06/07/2018 14:00	330572		50	50
LCS 240-330572/2-A	06/07/2018 14:00	330572		50	50
240-96206-5	06/07/2018 14:00	330572		50	50
240-96206-5 MS	06/07/2018 14:00	330572		50	50
240-96206-5 MSD	06/07/2018 14:00	330572		50	50
240-96206-2	06/07/2018 14:00	330572		50	50
240-96206-3	06/07/2018 14:00	330572		50	50
240-96206-3	06/07/2018 14:00	330572		50	50
240-96206-4	06/07/2018 14:00	330572		50	50
240-96206-5	06/07/2018 14:00	330572		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-330572/1-A

Instrument Code: I11 Batch No.: 330946

CAS No.	Analyte	Concentration	C	Q	Method
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-330572/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSA_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Copper	1000	1060		106	80	120		6020A
Dissolved Copper	1000	1060		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-15D-052518 MS
Lab ID: 240-96206-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Copper	1060		5.7		1000	105	75-125		6020A
Dissolved Copper	1060		5.7		1000	105	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-15D-052518 MSD
Lab ID: 240-96206-5 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Copper	1160		1000	116	75-125	9	20		6020A
Dissolved Copper	1160		1000	116	75-125	9	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-96206-5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Copper	5.7		8.5	U	NC		6020A
Copper	5.7		8.5	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329558/1-A	06/01/2018 14:00	329558		50	50
LCS 240-329558/2-A	06/01/2018 14:00	329558		50	50
240-96362-5	06/01/2018 14:00	329558		50	50
240-96362-5 MS	06/01/2018 14:00	329558		50	50
240-96362-5 MSD	06/01/2018 14:00	329558		50	50
240-96362-5	06/01/2018 14:00	329558		50	50
240-96362-5 MS	06/01/2018 14:00	329558		50	50
240-96362-5 MSD	06/01/2018 14:00	329558		50	50
240-96362-2	06/01/2018 14:00	329558		50	50
240-96362-2	06/01/2018 14:00	329558		50	50
240-96362-3	06/01/2018 14:00	329558		50	50
240-96362-3	06/01/2018 14:00	329558		50	50
240-96362-4	06/01/2018 14:00	329558		50	50
240-96362-4	06/01/2018 14:00	329558		50	50

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329558/1-A

Instrument Code: I10 Batch No.: 331171

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	2.21	J	^	6020A
7782-49-2	Selenium	2.21	J	^	6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329558/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	98.7		99	80	120		6020A
Dissolved Antimony	100	98.7		99	80	120		6020A
Arsenic	1000	970		97	80	120		6020A
Dissolved Arsenic	1000	970		97	80	120		6020A
Barium	1000	1030		103	80	120		6020A
Dissolved Barium	1000	1030		103	80	120		6020A
Beryllium	1000	1070		107	80	120		6020A
Dissolved Beryllium	1000	1070		107	80	120		6020A
Cadmium	1000	1030		103	80	120		6020A
Dissolved Cadmium	1000	1030		103	80	120		6020A
Cobalt	1000	1050		105	80	120		6020A
Dissolved Cobalt	1000	1050		105	80	120		6020A
Chromium	1000	1020		102	80	120		6020A
Dissolved Chromium	1000	1020		102	80	120		6020A
Copper	1000	1010		101	80	120		6020A
Dissolved Copper	1000	1010		101	80	120		6020A
Dissolved Iron	10000	9860		99	80	120		6020A
Iron	10000	9860		99	80	120		6020A
Dissolved Manganese	1000	989		99	80	120		6020A
Manganese	1000	989		99	80	120		6020A
Dissolved Molybdenum	100	101		101	80	120		6020A
Molybdenum	100	101		101	80	120		6020A
Dissolved Nickel	1000	1100		110	80	120		6020A
Nickel	1000	1100		110	80	120		6020A
Dissolved Lead	1000	1040		104	80	120		6020A
Lead	1000	1040		104	80	120		6020A
Dissolved Selenium	1000	968		97	80	120	^	6020A
Selenium	1000	968		97	80	120	^	6020A
Dissolved Thallium	250	256		102	80	120		6020A
Thallium	250	256		102	80	120		6020A
Dissolved Vanadium	1000	1020		102	80	120		6020A
Dissolved Zinc	1000	989		99	80	120		6020A
Vanadium	1000	1020		102	80	120		6020A
Zinc	1000	989		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329558/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	102		102	80	120		6020A
Silver	100	102		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-19D-053018 MS
Lab ID: 240-96362-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.976		0.13	U	1.00	98	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-19D-053018 MSD Lab ID: 240-96362-5 MSD

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.900		1.00	90	80-120	8	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-19D-053018 MS
Lab ID: 240-96362-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	100		0.57	U	100	100	75-125		6020A
Arsenic	977		2.1	J	1000	97	75-125		6020A
Barium	1100		51		1000	105	75-125		6020A
Beryllium	1070		2.4		1000	107	75-125		6020A
Cadmium	1010		2.0		1000	101	75-125		6020A
Cobalt	1240		220		1000	102	75-125		6020A
Chromium	1000		4.1		1000	100	75-125		6020A
Copper	1010		23		1000	98	75-125		6020A
Iron	10300		530		10000	98	75-125		6020A
Manganese	3590		2500		1000	114	75-125		6020A
Molybdenum	103		1.1	U	100	103	75-125		6020A
Nickel	1180		110		1000	107	75-125		6020A
Lead	1070		0.57	J	1000	106	75-125		6020A
Selenium	953		3.3	J	1000	95	75-125	^	6020A
Thallium	259		0.34	J	250	103	75-125		6020A
Vanadium	1010		1.3	J	1000	101	75-125		6020A
Zinc	1300		260		1000	104	75-125		6020A
Silver	100		0.053	U	100	100	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-19D-053018 MSD Lab ID: 240-96362-5 MSD

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	99.8		100	100	75-125	1	20		6020A
Arsenic	989		1000	99	75-125	1	20		6020A
Barium	1110		1000	106	75-125	1	20		6020A
Beryllium	1040		1000	104	75-125	3	20		6020A
Cadmium	1030		1000	103	75-125	1	20		6020A
Cobalt	1250		1000	103	75-125	1	20		6020A
Chromium	1020		1000	102	75-125	2	20		6020A
Copper	1020		1000	100	75-125	1	20		6020A
Iron	10300		10000	97	75-125	0	20		6020A
Manganese	3590		1000	114	75-125	0	20		6020A
Molybdenum	104		100	104	75-125	2	20		6020A
Nickel	1200		1000	109	75-125	1	20		6020A
Lead	1060		1000	106	75-125	1	20		6020A
Selenium	967		1000	96	75-125	1	20	^	6020A
Thallium	260		250	104	75-125	0	20		6020A
Vanadium	1030		1000	103	75-125	2	20		6020A
Zinc	1310		1000	106	75-125	1	20		6020A
Silver	102		100	102	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-19D-053018 MS
Lab ID: 240-96362-5 MS
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Antimony	102		0.57	U	100	102	75-125		6020A
Dissolved Arsenic	1020		1.8	J	1000	102	75-125		6020A
Dissolved Barium	1100		57		1000	104	75-125		6020A
Dissolved Beryllium	1100		2.5		1000	109	75-125		6020A
Dissolved Cadmium	1040		2.1		1000	104	75-125		6020A
Dissolved Cobalt	1280		240		1000	104	75-125		6020A
Dissolved Chromium	1050		3.5		1000	105	75-125		6020A
Dissolved Copper	1030		21		1000	101	75-125		6020A
Dissolved Iron	10600		540		10000	101	75-125		6020A
Dissolved Manganese	3710		2800		1000	95	75-125		6020A
Dissolved Molybdenum	107		1.1	U	100	107	75-125		6020A
Dissolved Nickel	1220		120		1000	110	75-125		6020A
Dissolved Lead	1090		0.45	U	1000	109	75-125		6020A
Dissolved Selenium	986		3.9	J	1000	98	75-125		6020A
Dissolved Zinc	1330		280		1000	105	75-125		6020A
Dissolved Thallium	266		0.37	J	250	106	75-125		6020A
Dissolved Vanadium	1070		1.2	J	1000	107	75-125		6020A
Dissolved Silver	105		0.053	U	100	105	75-125		6020A
Mercury, Dissolved	0.945		0.13	U	1.00	95	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-19D-053018 MSD
Lab ID: 240-96362-5 MSD
Lab Name: TestAmerica Canton
Job No.: 240-96144-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Antimony	96.9		100	97	75-125	5	20		6020A
Dissolved Arsenic	971		1000	97	75-125	5	20		6020A
Dissolved Barium	1040		1000	98	75-125	6	20		6020A
Dissolved Beryllium	1050		1000	105	75-125	4	20		6020A
Dissolved Cadmium	996		1000	99	75-125	5	20		6020A
Dissolved Cobalt	1210		1000	97	75-125	6	20		6020A
Dissolved Chromium	981		1000	98	75-125	7	20		6020A
Dissolved Copper	982		1000	96	75-125	5	20		6020A
Dissolved Iron	10100		10000	96	75-125	5	20		6020A
Dissolved Manganese	3500		1000	74	75-125	6	20	F1	6020A
Dissolved Molybdenum	102		100	102	75-125	4	20		6020A
Dissolved Nickel	1170		1000	105	75-125	4	20		6020A
Dissolved Lead	1040		1000	104	75-125	5	20		6020A
Dissolved Selenium	946		1000	94	75-125	4	20	^	6020A
Dissolved Zinc	1260		1000	98	75-125	6	20		6020A
Dissolved Thallium	256		250	102	75-125	4	20		6020A
Dissolved Vanadium	990		1000	99	75-125	8	20		6020A
Dissolved Silver	101		100	101	75-125	3	20		6020A
Mercury, Dissolved	0.940		1.00	94	80-120	1	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-19D-053018 PDS Lab ID: 240-96362-5 PDS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Manganese	3990		2800		1000	123	80-120	W	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-96362-5

SDG No:

Lab Name: TestAmerica Canton Job No: 240-96144-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	2.1	J	3.8	U	NC		6020A
Barium	51		52.3		NC		6020A
Beryllium	2.4		2.42	J	NC		6020A
Cadmium	2.0		1.83	J	NC		6020A
Cobalt	220		230		5.2		6020A
Chromium	4.1		4.9	U	NC		6020A
Copper	23		26.0		NC		6020A
Dissolved Iron	530		603		NC		6020A
Dissolved Manganese	2500		2710		10		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	110		120		NC		6020A
Dissolved Lead	0.57	J	2.3	U	NC		6020A
Dissolved Selenium	3.3	J	11.9	J	NC	^	6020A
Dissolved Thallium	0.34	J	1.0	U	NC		6020A
Dissolved Vanadium	1.3	J	4.1	U	NC		6020A
Zinc	260		283		NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-328942/1-A	05/29/2018 12:00	328942		50	50
LCS 240-328942/2-A	05/29/2018 12:00	328942		50	50
240-96144-2	05/29/2018 12:00	328942		50	50
240-96144-2 MS	05/29/2018 12:00	328942		50	50
240-96144-2 MSD	05/29/2018 12:00	328942		50	50
240-96144-2	05/29/2018 12:00	328942		50	50
240-96144-3	05/29/2018 12:00	328942		50	50
240-96144-3	05/29/2018 12:00	328942		50	50
240-96144-4	05/29/2018 12:00	328942		50	50
240-96144-4	05/29/2018 12:00	328942		50	50
240-96144-5	05/29/2018 12:00	328942		50	50
240-96144-5	05/29/2018 12:00	328942		50	50
240-96144-6	05/29/2018 12:00	328942		50	50
240-96144-6	05/29/2018 12:00	328942		50	50
240-96144-7	05/29/2018 12:00	328942		50	50
240-96144-7	05/29/2018 12:00	328942		50	50
240-96144-8	05/29/2018 12:00	328942		50	50
240-96144-8	05/29/2018 12:00	328942		50	50
240-96144-9	05/29/2018 12:00	328942		50	50
240-96144-9	05/29/2018 12:00	328942		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-328942/1-A

Instrument Code: H3 Batch No.: 329167

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-328942/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTHGCALW_01836

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.12		102	80	120		7470A
Mercury, Dissolved	5.00	5.12		102	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329151/1-A	05/30/2018 12:00	329151		50	50
LCS 240-329151/2-A	05/30/2018 12:00	329151		50	50
240-96206-2	05/30/2018 12:00	329151		50	50
240-96206-2 MS	05/30/2018 12:00	329151		50	50
240-96206-2 MSD	05/30/2018 12:00	329151		50	50
240-96206-2	05/30/2018 12:00	329151		50	50
240-96206-3	05/30/2018 12:00	329151		50	50
240-96206-3	05/30/2018 12:00	329151		50	50
240-96206-4	05/30/2018 12:00	329151		50	50
240-96206-4	05/30/2018 12:00	329151		50	50
240-96206-5	05/30/2018 12:00	329151		50	50
240-96206-5	05/30/2018 12:00	329151		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329151/1-A

Instrument Code: H3 Batch No.: 329452

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-329151/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTHGCALW_01837

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.74		95	80	120		7470A
Mercury, Dissolved	5.00	4.74		95	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329352/1-A	05/31/2018 12:00	329352		50	50
LCS 240-329352/2-A	05/31/2018 12:00	329352		50	50
240-96257-3	05/31/2018 12:00	329352		50	50
240-96257-3 MS	05/31/2018 12:00	329352		50	50
240-96257-3 MSD	05/31/2018 12:00	329352		50	50
240-96257-2	05/31/2018 12:00	329352		50	50
240-96257-2	05/31/2018 12:00	329352		50	50
240-96257-3	05/31/2018 12:00	329352		50	50
240-96257-4	05/31/2018 12:00	329352		50	50
240-96257-4	05/31/2018 12:00	329352		50	50

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329352/1-A

Instrument Code: H3 Batch No.: 329652

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-329352/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTHGCALW_01838

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.45		89	80	120		7470A
Mercury, Dissolved	5.00	4.45		89	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329560/1-A	06/01/2018 12:00	329560		50	50
LCS 240-329560/2-A	06/01/2018 12:00	329560		50	50
240-96362-5	06/01/2018 12:00	329560		50	50
240-96362-5 MS	06/01/2018 12:00	329560		50	50
240-96362-5 MSD	06/01/2018 12:00	329560		50	50
240-96362-5	06/01/2018 12:00	329560		50	50
240-96362-5 MS	06/01/2018 12:00	329560		50	50
240-96362-5 MSD	06/01/2018 12:00	329560		50	50
240-96362-2	06/01/2018 12:00	329560		50	50
240-96362-2	06/01/2018 12:00	329560		50	50
240-96362-3	06/01/2018 12:00	329560		50	50
240-96362-3	06/01/2018 12:00	329560		50	50
240-96362-4	06/01/2018 12:00	329560		50	50
240-96362-4	06/01/2018 12:00	329560		50	50

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329560/1-A

Instrument Code: H3 Batch No.: 329951

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-329560/2-A

Lab Name: TestAmerica Canton Job No.: 240-96144-1

Sample Matrix: Water LCS Source: MTHGCALW_01839

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.19		104	80	120		7470A
Mercury, Dissolved	5.00	5.19		104	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328941 Batch Start Date: 05/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/29/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00034	MTICPMSB 00035	MTTMHCL 00202
MB 240-328941/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-328941/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96144-K-2	MSA-MW-24S-052318	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-K-2 MS	MSA-MW-24S-052318	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96144-K-2 MSD	MSA-MW-24S-052318	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96144-J-2	MSA-MW-24S-052318	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-G-3	MSA-MW-24I-052318	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-H-3	MSA-MW-24I-052318	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-F-4	MSA-MW-30I-052318	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-G-4	MSA-MW-30I-052318	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-J-5	MSA-MW-45S-052318	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-K-5	MSA-MW-45S-052318	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-J-6	DMW-10S-052418	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-K-6	DMW-10S-052418	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-F-7	DMW-10I-052418	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-G-7	DMW-10I-052418	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-G-8	MSA-MW-21I-052418	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-H-8	MSA-MW-21I-052418	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96144-F-9	MSA-MW-21D-052418	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96144-G-9	MSA-MW-21D-052418	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00154					
MB 240-328941/1		3005A, 6020A		1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328941 Batch Start Date: 05/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/29/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00154					
LCS 240-328941/2		3005A, 6020A		1 mL					
240-96144-K-2	MSA-MW-24S-052318	3005A, 6020A	D	1 mL					
240-96144-K-2 MS	MSA-MW-24S-052318	3005A, 6020A	D	1 mL					
240-96144-K-2 MSD	MSA-MW-24S-052318	3005A, 6020A	D	1 mL					
240-96144-J-2	MSA-MW-24S-052318	3005A, 6020A	R	1 mL					
240-96144-G-3	MSA-MW-24I-052318	3005A, 6020A	R	1 mL					
240-96144-H-3	MSA-MW-24I-052318	3005A, 6020A	D	1 mL					
240-96144-F-4	MSA-MW-30I-052318	3005A, 6020A	R	1 mL					
240-96144-G-4	MSA-MW-30I-052318	3005A, 6020A	D	1 mL					
240-96144-J-5	MSA-MW-45S-052318	3005A, 6020A	R	1 mL					
240-96144-K-5	MSA-MW-45S-052318	3005A, 6020A	D	1 mL					
240-96144-J-6	DMW-10S-052418	3005A, 6020A	R	1 mL					
240-96144-K-6	DMW-10S-052418	3005A, 6020A	D	1 mL					
240-96144-F-7	DMW-10I-052418	3005A, 6020A	R	1 mL					
240-96144-G-7	DMW-10I-052418	3005A, 6020A	D	1 mL					
240-96144-G-8	MSA-MW-21I-052418	3005A, 6020A	R	1 mL					
240-96144-H-8	MSA-MW-21I-052418	3005A, 6020A	D	1 mL					
240-96144-F-9	MSA-MW-21D-052418	3005A, 6020A	R	1 mL					
240-96144-G-9	MSA-MW-21D-052418	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328941 Batch Start Date: 05/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/29/18 22:00

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb2
Pipette/Syringe/Dispenser ID	mp1, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329145 Batch Start Date: 05/30/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/30/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00203
MB 240-329145/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-329145/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-K-2	MSA-MW-33S-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96206-K-2 MS	MSA-MW-33S-052518	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-K-2 MSD	MSA-MW-33S-052518	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-J-2	MSA-MW-33S-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-F-3	MSA-MW-33I-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-G-3	MSA-MW-33I-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96206-G-4	MSA-MW-15I-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-H-4	MSA-MW-15I-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96206-G-5	MSA-MW-15D-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-H-5	MSA-MW-15D-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155
MB 240-329145/1		3005A, 6020A		1 mL
LCS 240-329145/3		3005A, 6020A		1 mL
240-96206-K-2	MSA-MW-33S-052518	3005A, 6020A	D	1 mL
240-96206-K-2 MS	MSA-MW-33S-052518	3005A, 6020A	D	1 mL
240-96206-K-2 MSD	MSA-MW-33S-052518	3005A, 6020A	D	1 mL
240-96206-J-2	MSA-MW-33S-052518	3005A, 6020A	R	1 mL
240-96206-F-3	MSA-MW-33I-052518	3005A, 6020A	R	1 mL
240-96206-G-3	MSA-MW-33I-052518	3005A, 6020A	D	1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329145 Batch Start Date: 05/30/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/30/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
240-96206-G-4	MSA-MW-15I-052518	3005A, 6020A	R	1 mL					
240-96206-H-4	MSA-MW-15I-052518	3005A, 6020A	D	1 mL					
240-96206-G-5	MSA-MW-15D-052518	3005A, 6020A	R	1 mL					
240-96206-H-5	MSA-MW-15D-052518	3005A, 6020A	D	1 mL					

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb2
Pipette/Syringe/Dispenser ID	mp1, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329350 Batch Start Date: 05/31/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/31/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00203
MB 240-329350/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-329350/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96257-H-3	MSA-MW-54I-052918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96257-H-3 MS	MSA-MW-54I-052918	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96257-H-3 MSD	MSA-MW-54I-052918	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96257-J-2	MSA-MW-3-052918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96257-K-2	MSA-MW-3-052918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96257-G-3	MSA-MW-54I-052918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96257-K-4	MSA-MW-54S-052918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96257-L-4	MSA-MW-54S-052918	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329350/1		3005A, 6020A		1 mL					
LCS 240-329350/2		3005A, 6020A		1 mL					
240-96257-H-3	MSA-MW-54I-052918	3005A, 6020A	D	1 mL					
240-96257-H-3 MS	MSA-MW-54I-052918	3005A, 6020A	D	1 mL					
240-96257-H-3 MSD	MSA-MW-54I-052918	3005A, 6020A	D	1 mL					
240-96257-J-2	MSA-MW-3-052918	3005A, 6020A	R	1 mL					
240-96257-K-2	MSA-MW-3-052918	3005A, 6020A	D	1 mL					
240-96257-G-3	MSA-MW-54I-052918	3005A, 6020A	R	1 mL					
240-96257-K-4	MSA-MW-54S-052918	3005A, 6020A	R	1 mL					
240-96257-L-4	MSA-MW-54S-052918	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329350 Batch Start Date: 05/31/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 05/31/18 22:00

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb0
Pipette/Syringe/Dispenser ID	mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329558 Batch Start Date: 06/01/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/01/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00203
MB 240-329558/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-329558/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96362-P-5	MSA-MW-19D-053018	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96362-P-5 MS	MSA-MW-19D-053018	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96362-P-5 MSD	MSA-MW-19D-053018	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96362-U-5	MSA-MW-19D-053018	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96362-U-5 MS	MSA-MW-19D-053018	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96362-U-5 MSD	MSA-MW-19D-053018	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96362-J-2	DMW-1S-053018	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96362-K-2	DMW-1S-053018	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96362-F-3	DMW-1A-053018	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96362-G-3	DMW-1A-053018	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96362-F-4	DMW-1B-053018	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96362-G-4	DMW-1B-053018	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329558/1		3005A, 6020A		1 mL					
LCS 240-329558/2		3005A, 6020A		1 mL					
240-96362-P-5	MSA-MW-19D-053018	3005A, 6020A	R	1 mL					
240-96362-P-5 MS	MSA-MW-19D-053018	3005A, 6020A	R	1 mL					
240-96362-P-5 MSD	MSA-MW-19D-053018	3005A, 6020A	R	1 mL					
240-96362-U-5	MSA-MW-19D-053018	3005A, 6020A	D	1 mL					
240-96362-U-5 MS	MSA-MW-19D-053018	3005A, 6020A	D	1 mL					
240-96362-U-5 MSD	MSA-MW-19D-053018	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329558 Batch Start Date: 06/01/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/01/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
240-96362-J-2	DMW-1S-053018	3005A, 6020A	R	1 mL					
240-96362-K-2	DMW-1S-053018	3005A, 6020A	D	1 mL					
240-96362-F-3	DMW-1A-053018	3005A, 6020A	R	1 mL					
240-96362-G-3	DMW-1A-053018	3005A, 6020A	D	1 mL					
240-96362-F-4	DMW-1B-053018	3005A, 6020A	R	1 mL					
240-96362-G-4	DMW-1B-053018	3005A, 6020A	D	1 mL					

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb4
Pipette/Syringe/Dispenser ID	mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330572 Batch Start Date: 06/07/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/07/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00204
MB 240-330572/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-330572/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-H-5	MSA-MW-15D-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96206-H-5 MS	MSA-MW-15D-052518	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-H-5 MSD	MSA-MW-15D-052518	3005A, 6020A	D	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96206-J-2	MSA-MW-33S-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-F-3	MSA-MW-33I-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-G-3	MSA-MW-33I-052518	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96206-G-4	MSA-MW-15I-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96206-G-5	MSA-MW-15D-052518	3005A, 6020A	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00156					
MB 240-330572/1		3005A, 6020A		1 mL					
LCS 240-330572/2		3005A, 6020A		1 mL					
240-96206-H-5	MSA-MW-15D-052518	3005A, 6020A	D	1 mL					
240-96206-H-5 MS	MSA-MW-15D-052518	3005A, 6020A	D	1 mL					
240-96206-H-5 MSD	MSA-MW-15D-052518	3005A, 6020A	D	1 mL					
240-96206-J-2	MSA-MW-33S-052518	3005A, 6020A	R	1 mL					
240-96206-F-3	MSA-MW-33I-052518	3005A, 6020A	R	1 mL					
240-96206-G-3	MSA-MW-33I-052518	3005A, 6020A	D	1 mL					
240-96206-G-4	MSA-MW-15I-052518	3005A, 6020A	R	1 mL					
240-96206-G-5	MSA-MW-15D-052518	3005A, 6020A	R	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 330572 Batch Start Date: 06/07/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/07/18 22:00

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c4
Pipette/Syringe/Dispenser ID	mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328942 Batch Start Date: 05/29/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/29/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00056	MTHGCALW 01836	MTKMN04W 00160
MB 240-328942/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-328942/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-96144-K-2	MSA-MW-24S-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-K-2 MS	MSA-MW-24S-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96144-K-2 MSD	MSA-MW-24S-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96144-J-2	MSA-MW-24S-052318	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-G-3	MSA-MW-24I-052318	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-H-3	MSA-MW-24I-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-F-4	MSA-MW-30I-052318	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-G-4	MSA-MW-30I-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-J-5	MSA-MW-45S-052318	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-K-5	MSA-MW-45S-052318	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-J-6	DMW-10S-052418	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-K-6	DMW-10S-052418	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-F-7	DMW-10I-052418	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-G-7	DMW-10I-052418	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-G-8	MSA-MW-21I-052418	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-H-8	MSA-MW-21I-052418	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-F-9	MSA-MW-21D-052418	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96144-G-9	MSA-MW-21D-052418	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00154					
MB 240-328942/1		7470A, 7470A		1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328942 Batch Start Date: 05/29/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/29/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00154					
LCS 240-328942/2		7470A, 7470A		1.25 mL					
240-96144-K-2	MSA-MW-24S-052318	7470A, 7470A	D	1.25 mL					
240-96144-K-2 MS	MSA-MW-24S-052318	7470A, 7470A	D	1.25 mL					
240-96144-K-2 MSD	MSA-MW-24S-052318	7470A, 7470A	D	1.25 mL					
240-96144-J-2	MSA-MW-24S-052318	7470A, 7470A	T	1.25 mL					
240-96144-G-3	MSA-MW-24I-052318	7470A, 7470A	T	1.25 mL					
240-96144-H-3	MSA-MW-24I-052318	7470A, 7470A	D	1.25 mL					
240-96144-F-4	MSA-MW-30I-052318	7470A, 7470A	T	1.25 mL					
240-96144-G-4	MSA-MW-30I-052318	7470A, 7470A	D	1.25 mL					
240-96144-J-5	MSA-MW-45S-052318	7470A, 7470A	T	1.25 mL					
240-96144-K-5	MSA-MW-45S-052318	7470A, 7470A	D	1.25 mL					
240-96144-J-6	DMW-10S-052418	7470A, 7470A	T	1.25 mL					
240-96144-K-6	DMW-10S-052418	7470A, 7470A	D	1.25 mL					
240-96144-F-7	DMW-10I-052418	7470A, 7470A	T	1.25 mL					
240-96144-G-7	DMW-10I-052418	7470A, 7470A	D	1.25 mL					
240-96144-G-8	MSA-MW-21I-052418	7470A, 7470A	T	1.25 mL					
240-96144-H-8	MSA-MW-21I-052418	7470A, 7470A	D	1.25 mL					
240-96144-F-9	MSA-MW-21D-052418	7470A, 7470A	T	1.25 mL					
240-96144-G-9	MSA-MW-21D-052418	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328942 Batch Start Date: 05/29/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/29/18 14:00

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 328986 Batch Start Date: 05/29/18 09:10 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 05/29/18 11:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00056	MTHGCALW 01836	MTHgICV_00001 00345
ICV 240-328986/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-328986/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-328986/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-328986/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-328986/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00160	MTTMHNO3 00154				
ICV 240-328986/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-328986/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-328986/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-328986/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-328986/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	A8, MP1, MP2
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329151 Batch Start Date: 05/30/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/30/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01837	MTKMN04W 00160
MB 240-329151/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-329151/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-96206-K-2	MSA-MW-33S-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-K-2 MS	MSA-MW-33S-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96206-K-2 MSD	MSA-MW-33S-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96206-J-2	MSA-MW-33S-052518	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-F-3	MSA-MW-33I-052518	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-G-3	MSA-MW-33I-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-G-4	MSA-MW-15I-052518	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-H-4	MSA-MW-15I-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-G-5	MSA-MW-15D-052518	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96206-H-5	MSA-MW-15D-052518	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155
MB 240-329151/1		7470A, 7470A		1.25 mL
LCS 240-329151/2		7470A, 7470A		1.25 mL
240-96206-K-2	MSA-MW-33S-052518	7470A, 7470A	D	1.25 mL
240-96206-K-2 MS	MSA-MW-33S-052518	7470A, 7470A	D	1.25 mL
240-96206-K-2 MSD	MSA-MW-33S-052518	7470A, 7470A	D	1.25 mL
240-96206-J-2	MSA-MW-33S-052518	7470A, 7470A	T	1.25 mL
240-96206-F-3	MSA-MW-33I-052518	7470A, 7470A	T	1.25 mL
240-96206-G-3	MSA-MW-33I-052518	7470A, 7470A	D	1.25 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329151 Batch Start Date: 05/30/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/30/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
240-96206-G-4	MSA-MW-15I-052518	7470A, 7470A	T	1.25 mL					
240-96206-H-4	MSA-MW-15I-052518	7470A, 7470A	D	1.25 mL					
240-96206-G-5	MSA-MW-15D-052518	7470A, 7470A	T	1.25 mL					
240-96206-H-5	MSA-MW-15D-052518	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329352 Batch Start Date: 05/31/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/31/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01838	MTKMN04W 00160
MB 240-329352/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-329352/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-96257-H-3	MSA-MW-54I-052918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96257-H-3 MS	MSA-MW-54I-052918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96257-H-3 MSD	MSA-MW-54I-052918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96257-J-2	MSA-MW-3-052918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96257-K-2	MSA-MW-3-052918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96257-G-3	MSA-MW-54I-052918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96257-K-4	MSA-MW-54S-052918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96257-L-4	MSA-MW-54S-052918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329352/1		7470A, 7470A		1.25 mL					
LCS 240-329352/2		7470A, 7470A		1.25 mL					
240-96257-H-3	MSA-MW-54I-052918	7470A, 7470A	D	1.25 mL					
240-96257-H-3 MS	MSA-MW-54I-052918	7470A, 7470A	D	1.25 mL					
240-96257-H-3 MSD	MSA-MW-54I-052918	7470A, 7470A	D	1.25 mL					
240-96257-J-2	MSA-MW-3-052918	7470A, 7470A	T	1.25 mL					
240-96257-K-2	MSA-MW-3-052918	7470A, 7470A	D	1.25 mL					
240-96257-G-3	MSA-MW-54I-052918	7470A, 7470A	T	1.25 mL					
240-96257-K-4	MSA-MW-54S-052918	7470A, 7470A	T	1.25 mL					
240-96257-L-4	MSA-MW-54S-052918	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329352 Batch Start Date: 05/31/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 05/31/18 14:00

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329437 Batch Start Date: 05/31/18 09:25 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 05/31/18 11:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01838	MTHgICV_00001 00346
ICV 240-329437/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-329437/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-329437/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-329437/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-329437/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00161	MTTMHNO3 00155				
ICV 240-329437/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-329437/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-329437/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-329437/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-329437/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	A8, MP1, MP2
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329560 Batch Start Date: 06/01/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/01/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01839	MTKMN04W 00161
MB 240-329560/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-329560/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-96362-P-5	MSA-MW-19D-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-P-5 MS	MSA-MW-19D-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96362-P-5 MSD	MSA-MW-19D-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96362-U-5	MSA-MW-19D-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-U-5 MS	MSA-MW-19D-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96362-U-5 MSD	MSA-MW-19D-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-96362-J-2	DMW-1S-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-K-2	DMW-1S-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-F-3	DMW-1A-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-G-3	DMW-1A-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-F-4	DMW-1B-053018	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96362-G-4	DMW-1B-053018	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329560/1		7470A, 7470A		1.25 mL					
LCS 240-329560/2		7470A, 7470A		1.25 mL					
240-96362-P-5	MSA-MW-19D-053018	7470A, 7470A	T	1.25 mL					
240-96362-P-5 MS	MSA-MW-19D-053018	7470A, 7470A	T	1.25 mL					
240-96362-P-5 MSD	MSA-MW-19D-053018	7470A, 7470A	T	1.25 mL					
240-96362-U-5	MSA-MW-19D-053018	7470A, 7470A	D	1.25 mL					
240-96362-U-5 MS	MSA-MW-19D-053018	7470A, 7470A	D	1.25 mL					
240-96362-U-5 MSD	MSA-MW-19D-053018	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329560 Batch Start Date: 06/01/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/01/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
240-96362-J-2	DMW-1S-053018	7470A, 7470A	T	1.25 mL					
240-96362-K-2	DMW-1S-053018	7470A, 7470A	D	1.25 mL					
240-96362-F-3	DMW-1A-053018	7470A, 7470A	T	1.25 mL					
240-96362-G-3	DMW-1A-053018	7470A, 7470A	D	1.25 mL					
240-96362-F-4	DMW-1B-053018	7470A, 7470A	T	1.25 mL					
240-96362-G-4	DMW-1B-053018	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96144-1

SDG No.:

Batch Number: 329940 Batch Start Date: 06/04/18 09:15 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 06/04/18 11:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01840	MTHgICV_00001 00347
ICV 240-329940/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-329940/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-329940/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-329940/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-329940/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00161	MTTMHNO3 00155				
ICV 240-329940/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-329940/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-329940/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-329940/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-329940/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	A8, MP1, MP2
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **JULY 17, 2018**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / DRO / GRO / TOTAL AND DISSOLVED METALS / PERCHLORATE**
MSA – 2018 GW SW MONITORING – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-96479-1

SAMPLES: 5 / Aqueous / VOC / 1,4-Dioxane / Total and Dissolved metals

DMW-7D-053118 DMW-7I-053118 DMW-7S-053118
MSA-MW-5-053118 TB-053118

2 / Aqueous / TPH

DMW-7S-053118 MSA-MW-5-053118

1 / Aqueous / Perchlorate

DMW-7I-053118

OVERVIEW

The sample set for MSA-2018 GW SW Monitoring, SDG 240-96479-1, consists of four (4) aqueous environmental samples and one (1) trip blank. Samples were analyzed for volatile organic compounds (VOCs), 1,4-dioxane, diesel range organics (DRO), gasoline range organics (GRO), and perchlorate. Additionally, samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on May 31, 2018, and analyzed by Test America. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOC), 8270D (for 1,4-dioxane), 8015C (for DRO and GRO), 7470A and 6020A (for mercury and remaining metals, respectively), as well as EPA Method 6850 (for perchlorate) analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/trip blank results, surrogate spike recoveries, interference check standard, laboratory control sample results, matrix spike/matrix spike duplicate results, internal standard recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC continuing calibration performed on 06/11/18 at 10:44 on instrument A3UX12 had percent

differences (%Ds) that were greater than the 20% quality control limit for dichlorodifluoromethane, vinyl acetate, and hexachlorobutadiene. All VOC samples were affected. The non-detected results for these analytes were qualified as estimated (UJ) in the affected samples.

- A tentatively identified compound (TIC) search was performed for the compound chlorodifluoromethane. Non-detected results were qualified as estimated (UJ) because the compound was not calibrated and the detection limit is an estimated value.

- The following metals were detected in the laboratory calibration blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	< or > Reporting Limit (RL)
Beryllium	0.356 ug/L(1)	< RL
Dissolved Thallium	0.216 ug/L(1)	< RL
Beryllium	0.816 ug/L(2)	< RL

1 - Maximum concentration detected in calibration blank analyzed on 06/11/18 at 17:58 affecting all total metals samples and dissolved metals samples DMW-7D-053118, DMW-7I-053118, and DMW-7S-053118.
2 - Maximum concentration detected in calibration blank analyzed on 06/11/18 at 21:55 affecting dissolved metals sample MSA-MW-5-053118.

Associated detected results below the RL were qualified as non-detected (U) due to blank contamination.

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL.

The following VOC samples were analyzed at dilution factors greater than 1:

Sample	Dilution Factor
DMW-7I-053118	8.33
DMW-7S-053118	333.33
MSA-MW-5-053118	125

The following VOC analyte was detected in the trip blank at the following maximum concentration:

Contaminant	Maximum Concentration	< or > RL
Tertiary-butyl alcohol	7.2 ug/L(1)	< RL

1 - Maximum concentration detected in trip blank TB-053118 affecting all samples.

No qualification was necessary because tertiary-butyl alcohol was non-detected in all environmental samples.

The laboratory control sample (LCS) associated with preparation batch 240-330979 had a percent recovery (%R) for vinyl acetate that was greater than the laboratory quality control limits. All samples were affected.

No qualification was necessary because results for vinyl acetate were non-detected in all samples.

The LCS summary Form III for this SDG does not include the target analyte tert-amyl methyl ether. No action was taken on this basis.

The VOC matrix spike (MS)/matrix spike duplicate (MSD) analysis performed on sample MSA-MW-5-053118 had an MSD %R for vinyl acetate that was greater than the laboratory quality control limit. Additionally, the relative percent differences (RPDs) for 1,2,3-trichloropropane, 2-hexanone, and bromoform were greater than the laboratory quality control limits. No action was necessary because results for these analytes were non-detected in sample MSA-MW-5-053118.

1,4-Dioxane in sample DMW-7S-053118 was analyzed at a dilution factor of 2.5.

GRO in sample DMW-7S-053118 was analyzed at a dilution factor of 10.

The metals continuing calibration verifications performed on 06/11/18 at 20:32 and 21:48 had %Rs for beryllium that were greater than the 90-110% quality control range. Dissolved metals sample MSA-MW-5-053118 was affected. Additionally, the low-level continuing calibration verification performed on 06/11/18 at 23:18 had a %R for beryllium that was greater than the 70-130% quality control range. No qualification was necessary because the result for beryllium was non-detected in dissolved metals sample MSA-MW-5-053118.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several non-detected VOC results were qualified due to calibration noncompliance. Some metals results for one analyte were qualified due to laboratory blank contamination.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Non-detected results for the TIC chlorodifluoromethane were qualified as estimated (UJ) because the GC/MS was not calibrated for this compound. Detected results reported below the RL but above the MDL were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the USEPA "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: OV	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		1.2	U		47	U		18	U	
1,1,1-TRICHLOROETHANE		0.24	U		3.2	J	P	80	U		30	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		1.1	U		43	U		16	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		3.4	U		140	U		51	U	
1,1-DICHLOROETHANE		0.17	U		1.4	U		57	U		21	U	
1,1-DICHLOROETHENE		0.19	U		1.8	J	P	63	U		24	U	
1,1-DICHLOROPROPENE		0.14	U		1.2	U		47	U		18	U	
1,2,3-TRICHLOROBENZENE		0.54	U		4.5	U		180	U		68	U	
1,2,3-TRICHLOROPROPANE		0.24	U		2	U		80	U		30	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		1.2	U		47	U		18	U	
1,2,4-TRICHLOROBENZENE		0.26	U		2.3	J	P	87	U		33	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.58	U		23	U		8.8	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		7.6	U		300	U		110	U	
1,2-DIBROMOETHANE		0.12	U		1	U		40	U		15	U	
1,2-DICHLOROBENZENE		0.15	U		1.2	U		50	U		19	U	
1,2-DICHLOROETHANE		0.21	U		1.7	U		70	U		26	U	
1,2-DICHLOROPROPANE		0.15	U		1.2	U		50	U		19	U	
1,3-DICHLOROBENZENE		0.15	U		1.2	U		50	U		19	U	
1,3-DICHLOROPROPANE		0.21	U		1.7	U		70	U		26	U	
1,4-DICHLOROBENZENE		0.16	U		1.3	U		53	U		20	U	
2,2-DICHLOROPROPANE		0.31	U		2.6	U		100	U		39	U	
2-BUTANONE		1.2	U		9.7	U		390	U		150	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	2.2	UR	M	87	UR	M	33	UR	M
2-CHLOROTOLUENE		0.15	U		1.2	U		50	U		19	U	
2-HEXANONE		0.54	U		4.5	U		180	U		68	U	
4-CHLOROTOLUENE		0.09	U		0.75	U		30	U		11	U	
4-ISOPROPYLTOLUENE		0.13	U		1.1	U		43	U		16	U	
4-METHYL-2-PENTANONE		0.42	U		3.5	U		140	U		53	U	
ACETONE		5.4	U		45	U		1800	U		680	U	
BENZENE		0.13	U		1.1	U		43	U		16	U	
BROMOBENZENE		0.12	U		1	U		40	U		15	U	
BROMOCHLOROMETHANE		0.14	U		1.2	U		47	U		18	U	
BROMODICHLOROMETHANE		0.17	U		1.4	U		57	U		21	U	
BROMOFORM		0.76	U		6.3	U		250	U		95	U	
BROMOMETHANE		0.42	U		3.5	U		140	U		53	U	

PROJ_NO: 08424	NSAMPLE	TB-053118		
SDG: 240-96479-1	LAB_ID	240-96479-1		
FRACTION: OV	SAMP_DATE	5/31/2018		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.17	U	
1,1-DICHLOROETHENE		0.19	U	
1,1-DICHLOROPROPENE		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U	
1,2-DIBROMOETHANE		0.12	U	
1,2-DICHLOROBENZENE		0.15	U	
1,2-DICHLOROETHANE		0.21	U	
1,2-DICHLOROPROPANE		0.15	U	
1,3-DICHLOROBENZENE		0.15	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.16	U	
2,2-DICHLOROPROPANE		0.31	U	
2-BUTANONE		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M
2-CHLOROTOLUENE		0.15	U	
2-HEXANONE		0.54	U	
4-CHLOROTOLUENE		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U	
4-METHYL-2-PENTANONE		0.42	U	
ACETONE		5.4	U	
BENZENE		0.13	U	
BROMOBENZENE		0.12	U	
BROMOCHLOROMETHANE		0.14	U	
BROMODICHLOROMETHANE		0.17	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: OV	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		2.3	U		93	U		35	U	
CARBON TETRACHLORIDE		0.26	U		2.2	U		87	U		33	U	
CHLOROBENZENE		0.14	U		1.2	U		47	U		18	U	
CHLORODIBROMOMETHANE		0.39	U		3.2	U		130	U		49	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	8.3	UJ	Q	330	UJ	Q	130	UJ	Q
CHLOROETHANE		0.83	U		6.9	U		280	U		100	U	
CHLOROFORM		0.13	U		1.1	U		43	U		16	U	
CHLOROMETHANE		0.2	U		1.7	U		67	U		25	U	
CIS-1,2-DICHLOROETHENE		0.16	J	P	190			8400			3400		
CIS-1,3-DICHLOROPROPENE		0.61	U		5.1	U		200	U		76	U	
DIBROMOMETHANE		0.09	U		0.75	U		30	U		11	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	2.9	UJ	C	120	UJ	C	44	UJ	C
DIISOPROPYL ETHER		0.17	U		1.4	U		57	U		21	U	
ETHYL TERT-BUTYL ETHER		0.15	U		1.2	U		50	U		19	U	
ETHYLBENZENE		0.11	U		0.92	U		37	U		14	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	6.9	UJ	C	280	UJ	C	100	UJ	C
ISOPROPYLBENZENE		0.09	U		0.75	U		30	U		11	U	
M+P-XYLENES		0.08	U		0.67	U		27	U		10	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.58	U		23	U		8.8	U	
METHYLENE CHLORIDE		2.6	U		22	U		870	U		330	U	
NAPHTHALENE		0.32	U		2.7	U		110	U		40	U	
N-BUTYLBENZENE		0.14	U		1.2	U		47	U		18	U	
N-PROPYLBENZENE		0.15	U		1.2	U		50	U		19	U	
O-XYLENE		0.09	U		0.75	U		30	U		11	U	
SEC-BUTYLBENZENE		0.13	U		1.1	U		43	U		16	U	
STYRENE		0.1	U		0.83	U		33	U		13	U	
TERT-AMYL METHYL ETHER		0.11	U		0.92	U		37	U		14	U	
TERT-BUTYLBENZENE		0.14	U		1.2	U		47	U		18	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		14	U		560	U		210	U	
TETRACHLOROETHENE		0.15	U		1.2	U		50	U		19	U	
TOLUENE		0.14	U		1.2	U		47	U		18	U	
TOTAL XYLENES		0.15	U		1.2	U		50	U		19	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		6.8	J	P	63	J	P	64	J	P
TRANS-1,3-DICHLOROPROPENE		0.67	U		5.6	U		220	U		84	U	
TRICHLOROETHENE		0.24	J	P	77			890			13	U	

PROJ_NO: 08424	NSAMPLE	TB-053118		
SDG: 240-96479-1	LAB_ID	240-96479-1		
FRACTION: OV	SAMP_DATE	5/31/2018		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	U	
CHLOROBENZENE		0.14	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q
CHLOROETHANE		0.83	U	
CHLOROFORM		0.13	U	
CHLOROMETHANE		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C
DIISOPROPYL ETHER		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U	
ETHYLBENZENE		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U	
M+P-XYLENES		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U	
METHYLENE CHLORIDE		2.6	U	
NAPHTHALENE		0.32	U	
N-BUTYLBENZENE		0.14	U	
N-PROPYLBENZENE		0.15	U	
O-XYLENE		0.09	U	
SEC-BUTYLBENZENE		0.13	U	
STYRENE		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U	
TERT-BUTYLBENZENE		0.14	U	
TERTIARY-BUTYL ALCOHOL		7.2	J	P
TETRACHLOROETHENE		0.15	U	
TOLUENE		0.14	U	
TOTAL XYLENES		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		0.1	U	

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: OV	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		3.7	U		150	U		56	U	
VINYL ACETATE		0.19	UJ	C	1.6	UJ	C	63	UJ	C	24	UJ	C
VINYL CHLORIDE		0.2	U		40			2100			590		

PROJ_NO: 08424	NSAMPLE	TB-053118		
SDG: 240-96479-1	LAB_ID	240-96479-1		
FRACTION: OV	SAMP_DATE	5/31/2018		
MEDIA: WATER	QC_TYPE	TB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U	
VINYL ACETATE		0.19	UJ	C
VINYL CHLORIDE		0.2	U	

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: OS	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		4.5			54			6.2		

PROJ_NO: 08424	NSAMPLE	DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-4			240-96479-5		
FRACTION: PET	SAMP_DATE	5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		2300			2000		
TPH (C10-C32)		910			870		

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: M	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		3.3	J	P	2	J	P	2.8	J	P
BARIUM		40			9.7			11			22		
BERYLLIUM		0.73	U	A	3.3			0.39	U	A	0.31	U	
CADMIUM		0.27	J	P	6.6			0.21	U		0.21	U	
CHROMIUM		0.98	U		5			0.98	U		0.98	U	
COBALT		11			48			12			0.65	J	P
COPPER		9.3			24			2			1.7	U	
IRON		47	U		30000			22000			37000		
LEAD		3.5			5			0.45	U		0.45	U	
MANGANESE		35			2200			6400			1500		
MERCURY		0.84			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		2.9	J	P
NICKEL		18			54			10			1.5	U	
SELENIUM		0.89	U		8.5			1.7	J	P	4.8	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		11			0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-7D-053118			DMW-7I-053118			DMW-7S-053118			MSA-MW-5-053118		
SDG: 240-96479-1	LAB_ID	240-96479-3			240-96479-2			240-96479-4			240-96479-5		
FRACTION: MF	SAMP_DATE	5/31/2018			5/31/2018			5/31/2018			5/31/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		3.4	J	P	1.6	J	P	2.2	J	P
BARIUM		40			9.7			12			22		
BERYLLIUM		0.71	U	A	3.3			0.36	U	A	0.31	U	
CADMIUM		0.22	J	P	6.5			0.21	U		0.21	U	
CHROMIUM		0.98	U		4.4			0.98	U		0.98	U	
COBALT		11			48			12			0.51	J	P
COPPER		9.7			22			3.6			1.7	U	
IRON		47	U		30000			19000			37000		
LEAD		3.3			3.8			0.45	U		0.45	U	
MANGANESE		34			2200			6400			1500		
MERCURY		0.67			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		2.9	J	P
NICKEL		18			54			11			1.5	U	
SELENIUM		0.89	U		8.4			2.4	J	P	0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		11			0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-7I-053118		
SDG: 240-96479-1	LAB_ID	240-96479-2		
FRACTION: MISC	SAMP_DATE	5/31/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
PERCHLORATE		0.082	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 | Lab Sample ID: 240-96479-3

Matrix: Water | Lab File ID: U1264356.D

Analysis Method: 8260C | Date Collected: 05/31/2018 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 | Lab Sample ID: 240-96479-3

Matrix: Water | Lab File ID: U1264356.D

Analysis Method: 8260C | Date Collected: 05/31/2018 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.24	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U *	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 Lab Sample ID: 240-96479-3

Matrix: Water Lab File ID: U1264356.D

Analysis Method: 8260C Date Collected: 05/31/2018 09:50

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 17:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 | Lab Sample ID: 240-96479-3

Matrix: Water | Lab File ID: U1264356.D

Analysis Method: 8260C | Date Collected: 05/31/2018 09:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 Lab Sample ID: 240-96479-3

Matrix: Water Lab File ID: U1264356.D

Analysis Method: 8260C Date Collected: 05/31/2018 09:50

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 17:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: U1264355.D

Analysis Method: 8260C | Date Collected: 05/31/2018 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:57

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.2	U	8.3	1.2
71-55-6	1,1,1-Trichloroethane	3.2	J	8.3	2.0
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	8.3	1.1
76-13-1	1,1,2-Trichlorotrifluoroethane	3.4	U	8.3	3.4
75-34-3	1,1-Dichloroethane	1.4	U	8.3	1.4
75-35-4	1,1-Dichloroethene	1.8	J	8.3	1.6
563-58-6	1,1-Dichloropropene	1.2	U	8.3	1.2
87-61-6	1,2,3-Trichlorobenzene	4.5	U	8.3	4.5
96-18-4	1,2,3-Trichloropropane	2.0	U	8.3	2.0
526-73-8	1,2,3-Trimethylbenzene	1.2	U	42	1.2
120-82-1	1,2,4-Trichlorobenzene	2.3	J	8.3	2.2
95-63-6	1,2,4-Trimethylbenzene	0.58	U	8.3	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	7.6	U	17	7.6
95-50-1	1,2-Dichlorobenzene	1.2	U	8.3	1.2
107-06-2	1,2-Dichloroethane	1.7	U	8.3	1.7
78-87-5	1,2-Dichloropropane	1.2	U	8.3	1.2
541-73-1	1,3-Dichlorobenzene	1.2	U	8.3	1.2
142-28-9	1,3-Dichloropropane	1.7	U	8.3	1.7
106-46-7	1,4-Dichlorobenzene	1.3	U	8.3	1.3
594-20-7	2,2-Dichloropropane	2.6	U	8.3	2.6
78-93-3	2-Butanone (MEK)	9.7	U	83	9.7
110-75-8	2-Chloroethyl vinyl ether	2.2	U	83	2.2
95-49-8	2-Chlorotoluene	1.2	U	8.3	1.2
591-78-6	2-Hexanone	4.5	U	83	4.5
106-43-4	4-Chlorotoluene	0.75	U	8.3	0.75
99-87-6	4-Isopropyltoluene	1.1	U	8.3	1.1
108-10-1	4-Methyl-2-pentanone (MIBK)	3.5	U	83	3.5
67-64-1	Acetone	45	U	83	45
71-43-2	Benzene	1.1	U	8.3	1.1
108-86-1	Bromobenzene	1.0	U	8.3	1.0
75-25-2	Bromoform	6.3	U	8.3	6.3
74-83-9	Bromomethane	3.5	U	8.3	3.5
75-15-0	Carbon disulfide	2.3	U	8.3	2.3
56-23-5	Carbon tetrachloride	2.2	U	8.3	2.2
108-90-7	Chlorobenzene	1.2	U	8.3	1.2
124-48-1	Chlorodibromomethane	3.2	U	8.3	3.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: U1264355.D

Analysis Method: 8260C | Date Collected: 05/31/2018 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:57

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	6.9	U	8.3	6.9
67-66-3	Chloroform	1.1	U	8.3	1.1
74-87-3	Chloromethane	1.7	U	8.3	1.7
156-59-2	cis-1,2-Dichloroethene	190		8.3	1.3
10061-01-5	cis-1,3-Dichloropropene	5.1	U	8.3	5.1
74-95-3	Dibromomethane	0.75	U	8.3	0.75
74-97-5	Bromochloromethane	1.2	U	8.3	1.2
75-71-8	Dichlorodifluoromethane	2.9	U	8.3	2.9
75-27-4	Bromodichloromethane	1.4	U	8.3	1.4
75-65-0	tert-Butyl alcohol	14	U	420	14
100-41-4	Ethylbenzene	0.92	U	8.3	0.92
87-68-3	Hexachlorobutadiene	6.9	U	8.3	6.9
108-20-3	Diisopropyl ether	1.4	U	83	1.4
98-82-8	Isopropylbenzene	0.75	U	8.3	0.75
1634-04-4	Methyl tert-butyl ether	0.58	U	8.3	0.58
75-09-2	Methylene Chloride	22	U	42	22
179601-23-1	m-Xylene & p-Xylene	0.67	U	17	0.67
91-20-3	Naphthalene	2.7	U	8.3	2.7
104-51-8	n-Butylbenzene	1.2	U	8.3	1.2
103-65-1	N-Propylbenzene	1.2	U	8.3	1.2
95-47-6	o-Xylene	0.75	U	8.3	0.75
135-98-8	sec-Butylbenzene	1.1	U	8.3	1.1
100-42-5	Styrene	0.83	U	8.3	0.83
994-05-8	Tert-amyl methyl ether	0.92	U	42	0.92
637-92-3	Ethyl tert-butyl ether	1.2	U	42	1.2
127-18-4	Tetrachloroethene	1.2	U	8.3	1.2
108-88-3	Toluene	1.2	U	8.3	1.2
156-60-5	trans-1,2-Dichloroethene	6.8	J	8.3	1.6
10061-02-6	trans-1,3-Dichloropropene	5.6	U	8.3	5.6
79-01-6	Trichloroethene	77		8.3	0.83
75-69-4	Trichlorofluoromethane	3.7	U	8.3	3.7
108-05-4	Vinyl acetate	1.6	U *	17	1.6
75-01-4	Vinyl chloride	40		8.3	1.7
1330-20-7	Xylenes, Total	1.2	U	17	1.2
98-06-6	tert-Butylbenzene	1.2	U	8.3	1.2
106-93-4	1,2-Dibromoethane	1.0	U	8.3	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 Lab Sample ID: 240-96479-2

Matrix: Water Lab File ID: U1264355.D

Analysis Method: 8260C Date Collected: 05/31/2018 08:35

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 16:57

Soil Aliquot Vol: Dilution Factor: 8.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	102		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: U1264355.D

Analysis Method: 8260C | Date Collected: 05/31/2018 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:57

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: U1264355.D

Analysis Method: 8260C | Date Collected: 05/31/2018 08:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:57

Soil Aliquot Vol: | Dilution Factor: 8.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		8.3	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	47	U	330	47
71-55-6	1,1,1-Trichloroethane	80	U	330	80
79-34-5	1,1,2,2-Tetrachloroethane	43	U	330	43
76-13-1	1,1,2-Trichlorotrifluoroethane	140	U	330	140
75-34-3	1,1-Dichloroethane	57	U	330	57
75-35-4	1,1-Dichloroethene	63	U	330	63
563-58-6	1,1-Dichloropropene	47	U	330	47
87-61-6	1,2,3-Trichlorobenzene	180	U	330	180
96-18-4	1,2,3-Trichloropropane	80	U	330	80
526-73-8	1,2,3-Trimethylbenzene	47	U	1700	47
120-82-1	1,2,4-Trichlorobenzene	87	U	330	87
95-63-6	1,2,4-Trimethylbenzene	23	U	330	23
96-12-8	1,2-Dibromo-3-Chloropropane	300	U	670	300
95-50-1	1,2-Dichlorobenzene	50	U	330	50
107-06-2	1,2-Dichloroethane	70	U	330	70
78-87-5	1,2-Dichloropropane	50	U	330	50
541-73-1	1,3-Dichlorobenzene	50	U	330	50
142-28-9	1,3-Dichloropropane	70	U	330	70
106-46-7	1,4-Dichlorobenzene	53	U	330	53
594-20-7	2,2-Dichloropropane	100	U	330	100
78-93-3	2-Butanone (MEK)	390	U	3300	390
110-75-8	2-Chloroethyl vinyl ether	87	U	3300	87
95-49-8	2-Chlorotoluene	50	U	330	50
591-78-6	2-Hexanone	180	U	3300	180
106-43-4	4-Chlorotoluene	30	U	330	30
99-87-6	4-Isopropyltoluene	43	U	330	43
108-10-1	4-Methyl-2-pentanone (MIBK)	140	U	3300	140
67-64-1	Acetone	1800	U	3300	1800
71-43-2	Benzene	43	U	330	43
108-86-1	Bromobenzene	40	U	330	40
75-25-2	Bromoform	250	U	330	250
74-83-9	Bromomethane	140	U	330	140
75-15-0	Carbon disulfide	93	U	330	93
56-23-5	Carbon tetrachloride	87	U	330	87
108-90-7	Chlorobenzene	47	U	330	47
124-48-1	Chlorodibromomethane	130	U	330	130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	280	U	330	280
67-66-3	Chloroform	43	U	330	43
74-87-3	Chloromethane	67	U	330	67
156-59-2	cis-1,2-Dichloroethene	8400		330	53
10061-01-5	cis-1,3-Dichloropropene	200	U	330	200
74-95-3	Dibromomethane	30	U	330	30
74-97-5	Bromochloromethane	47	U	330	47
75-71-8	Dichlorodifluoromethane	120	U	330	120
75-27-4	Bromodichloromethane	57	U	330	57
75-65-0	tert-Butyl alcohol	560	U	17000	560
100-41-4	Ethylbenzene	37	U	330	37
87-68-3	Hexachlorobutadiene	280	U	330	280
108-20-3	Diisopropyl ether	57	U	3300	57
98-82-8	Isopropylbenzene	30	U	330	30
1634-04-4	Methyl tert-butyl ether	23	U	330	23
75-09-2	Methylene Chloride	870	U	1700	870
179601-23-1	m-Xylene & p-Xylene	27	U	670	27
91-20-3	Naphthalene	110	U	330	110
104-51-8	n-Butylbenzene	47	U	330	47
103-65-1	N-Propylbenzene	50	U	330	50
95-47-6	o-Xylene	30	U	330	30
135-98-8	sec-Butylbenzene	43	U	330	43
100-42-5	Styrene	33	U	330	33
994-05-8	Tert-amyl methyl ether	37	U	1700	37
637-92-3	Ethyl tert-butyl ether	50	U	1700	50
127-18-4	Tetrachloroethene	50	U	330	50
108-88-3	Toluene	47	U	330	47
156-60-5	trans-1,2-Dichloroethene	63	J	330	63
10061-02-6	trans-1,3-Dichloropropene	220	U	330	220
79-01-6	Trichloroethene	890		330	33
75-69-4	Trichlorofluoromethane	150	U	330	150
108-05-4	Vinyl acetate	63	U *	670	63
75-01-4	Vinyl chloride	2100		330	67
1330-20-7	Xylenes, Total	50	U	670	50
98-06-6	tert-Butylbenzene	47	U	330	47
106-93-4	1,2-Dibromoethane	40	U	330	40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4

Matrix: Water Lab File ID: U1264357a.D

Analysis Method: 8260C Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: Dilution Factor: 333.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	113		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		69-124
460-00-4	4-Bromofluorobenzene (Surr)	109		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		330	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: U1264358.D

Analysis Method: 8260C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 18:07

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	18	U	130	18
71-55-6	1,1,1-Trichloroethane	30	U	130	30
79-34-5	1,1,2,2-Tetrachloroethane	16	U	130	16
76-13-1	1,1,2-Trichlorotrifluoroethane	51	U	130	51
75-34-3	1,1-Dichloroethane	21	U	130	21
75-35-4	1,1-Dichloroethene	24	U	130	24
563-58-6	1,1-Dichloropropene	18	U	130	18
87-61-6	1,2,3-Trichlorobenzene	68	U	130	68
96-18-4	1,2,3-Trichloropropane	30	U F2	130	30
526-73-8	1,2,3-Trimethylbenzene	18	U	630	18
120-82-1	1,2,4-Trichlorobenzene	33	U	130	33
95-63-6	1,2,4-Trimethylbenzene	8.8	U	130	8.8
96-12-8	1,2-Dibromo-3-Chloropropane	110	U	250	110
95-50-1	1,2-Dichlorobenzene	19	U	130	19
107-06-2	1,2-Dichloroethane	26	U	130	26
78-87-5	1,2-Dichloropropane	19	U	130	19
541-73-1	1,3-Dichlorobenzene	19	U	130	19
142-28-9	1,3-Dichloropropane	26	U	130	26
106-46-7	1,4-Dichlorobenzene	20	U	130	20
594-20-7	2,2-Dichloropropane	39	U	130	39
78-93-3	2-Butanone (MEK)	150	U	1300	150
110-75-8	2-Chloroethyl vinyl ether	33	U	1300	33
95-49-8	2-Chlorotoluene	19	U	130	19
591-78-6	2-Hexanone	68	U F2	1300	68
106-43-4	4-Chlorotoluene	11	U	130	11
99-87-6	4-Isopropyltoluene	16	U	130	16
108-10-1	4-Methyl-2-pentanone (MIBK)	53	U	1300	53
67-64-1	Acetone	680	U	1300	680
71-43-2	Benzene	16	U	130	16
108-86-1	Bromobenzene	15	U	130	15
75-25-2	Bromoform	95	U F2	130	95
74-83-9	Bromomethane	53	U	130	53
75-15-0	Carbon disulfide	35	U	130	35
56-23-5	Carbon tetrachloride	33	U	130	33
108-90-7	Chlorobenzene	18	U	130	18
124-48-1	Chlorodibromomethane	49	U	130	49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: U1264358.D

Analysis Method: 8260C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 18:07

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	100	U	130	100
67-66-3	Chloroform	16	U	130	16
74-87-3	Chloromethane	25	U	130	25
156-59-2	cis-1,2-Dichloroethene	3400		130	20
10061-01-5	cis-1,3-Dichloropropene	76	U	130	76
74-95-3	Dibromomethane	11	U	130	11
74-97-5	Bromochloromethane	18	U	130	18
75-71-8	Dichlorodifluoromethane	44	U	130	44
75-27-4	Bromodichloromethane	21	U	130	21
75-65-0	tert-Butyl alcohol	210	U	6300	210
100-41-4	Ethylbenzene	14	U	130	14
87-68-3	Hexachlorobutadiene	100	U	130	100
108-20-3	Diisopropyl ether	21	U	1300	21
98-82-8	Isopropylbenzene	11	U	130	11
1634-04-4	Methyl tert-butyl ether	8.8	U	130	8.8
75-09-2	Methylene Chloride	330	U	630	330
179601-23-1	m-Xylene & p-Xylene	10	U	250	10
91-20-3	Naphthalene	40	U	130	40
104-51-8	n-Butylbenzene	18	U	130	18
103-65-1	N-Propylbenzene	19	U	130	19
95-47-6	o-Xylene	11	U	130	11
135-98-8	sec-Butylbenzene	16	U	130	16
100-42-5	Styrene	13	U	130	13
994-05-8	Tert-amyl methyl ether	14	U	630	14
637-92-3	Ethyl tert-butyl ether	19	U	630	19
127-18-4	Tetrachloroethene	19	U	130	19
108-88-3	Toluene	18	U	130	18
156-60-5	trans-1,2-Dichloroethene	64	J	130	24
10061-02-6	trans-1,3-Dichloropropene	84	U	130	84
79-01-6	Trichloroethene	13	U	130	13
75-69-4	Trichlorofluoromethane	56	U	130	56
108-05-4	Vinyl acetate	24	U F1 *	250	24
75-01-4	Vinyl chloride	590		130	25
1330-20-7	Xylenes, Total	19	U	250	19
98-06-6	tert-Butylbenzene	18	U	130	18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: U1264358.D

Analysis Method: 8260C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 18:07

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-93-4	1,2-Dibromoethane	15	U	130	15

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		73-120
1868-53-7	Dibromofluoromethane (Surr)	108		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: U1264358.D

Analysis Method: 8260C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 18:07

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: U1264358.D

Analysis Method: 8260C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 18:07

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		130	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: TB-053118 | Lab Sample ID: 240-96479-1

Matrix: Water | Lab File ID: U1264354.D

Analysis Method: 8260C | Date Collected: 05/31/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: TB-053118 | Lab Sample ID: 240-96479-1

Matrix: Water | Lab File ID: U1264354.D

Analysis Method: 8260C | Date Collected: 05/31/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	7.2	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U *	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: TB-053118 Lab Sample ID: 240-96479-1

Matrix: Water Lab File ID: U1264354.D

Analysis Method: 8260C Date Collected: 05/31/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 16:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	98		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: TB-053118 | Lab Sample ID: 240-96479-1

Matrix: Water | Lab File ID: U1264354.D

Analysis Method: 8260C | Date Collected: 05/31/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: TB-053118 | Lab Sample ID: 240-96479-1

Matrix: Water | Lab File ID: U1264354.D

Analysis Method: 8260C | Date Collected: 05/31/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 16:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7D-053118 | Lab Sample ID: 240-96479-3

Matrix: Water | Lab File ID: 80606013.D

Analysis Method: 8270D | Date Collected: 05/31/2018 09:50

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 270(mL) | Date Analyzed: 06/06/2018 12:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	48		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: 80606012.D

Analysis Method: 8270D | Date Collected: 05/31/2018 08:35

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 270(mL) | Date Analyzed: 06/06/2018 12:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	4.5		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		28-128
4165-62-2	Phenol-d5 (Surr)	54		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	68		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	85		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: 80607006.D

Analysis Method: 8270D | Date Collected: 05/31/2018 12:01

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 06/07/2018 09:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 2.5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	54		2.4	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	71		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: 80606015.D

Analysis Method: 8270D | Date Collected: 05/31/2018 14:51

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 270(mL) | Date Analyzed: 06/06/2018 13:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	6.2		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	86		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	70		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	91		33-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: A0060512.D

Analysis Method: 8015C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/05/2018 13:15

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330022 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	2300		1000	490

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: A0060437.D

Analysis Method: 8015C | Date Collected: 05/31/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/05/2018 04:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	2000		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: R060512.D

Analysis Method: 8015C | Date Collected: 05/31/2018 12:01

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 260(mL) | Date Analyzed: 06/05/2018 19:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	910		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: MSA-MW-5-053118 | Lab Sample ID: 240-96479-5

Matrix: Water | Lab File ID: R060513.D

Analysis Method: 8015C | Date Collected: 05/31/2018 14:51

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 260(mL) | Date Analyzed: 06/05/2018 19:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	870		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		37-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-7D-053118 Lab Sample ID: 240-96479-3

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 09:50

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.84	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-7D-053118 Lab Sample ID: 240-96479-3

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 09:50

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	40	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.73	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.27	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	11	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	9.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	35	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	18	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	3.5	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-7D-053118 Lab Sample ID: 240-96479-3

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 09:50

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	40	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.71	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.22	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	11	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	9.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	34	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	18	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	3.3	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.67	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-7I-053118 Lab Sample ID: 240-96479-2

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 08:35

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-7I-053118 Lab Sample ID: 240-96479-2

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 08:35

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	9.7	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	6.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	48	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	24	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	54	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	5.0	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	8.5	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	11	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-7I-053118 Lab Sample ID: 240-96479-2

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 08:35

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	3.4	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	9.7	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	3.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	6.5	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	48	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4.4	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	22	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2200	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	54	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	3.8	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	8.4	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	11	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 12:01

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 12:01

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.0	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	11	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.39	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	2.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	22000	100	47	ug/L			1	6020A
7439-96-5	Manganese	6400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	10	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.7	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 12:01

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	12	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.36	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	3.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	19000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6400	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	2.4	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-5-053118 Lab Sample ID: 240-96479-5

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 14:51

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-5-053118 Lab Sample ID: 240-96479-5

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 14:51

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	2.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.65	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	37000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.9	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	4.8	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-5-053118 Lab Sample ID: 240-96479-5

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 14:51

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	2.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.51	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	37000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	2.9	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 | Lab Sample ID: 240-96479-2

Matrix: Water | Lab File ID: Perc_06142018A_013.d

Analysis Method: 6850 | Date Collected: 05/31/2018 08:35

Extraction Method: Filtration | Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/14/2018 14:26

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018 - Dump Rd.

Report Number: 240-96479-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The Perchlorate analysis was performed at Sacramento Laboratory.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 6/2/2018 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples TB-053118 (240-96479-1), DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/11/2018.

Samples DMW-7I-053118 (240-96479-2)[8.33X], DMW-7S-053118 (240-96479-4)[333.33X] and MSA-MW-5-053118 (240-96479-5) [125X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-330979 was outside the method criteria for the following analytes: Dichlorodi fluoromethane and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated. TB-053118 (240-96479-1), DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5)

The laboratory control sample (LCS) for analytical batch 240-330979 recovered outside control limits for the following analyte: Vinyl Acetate. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. TB-053118 (240-96479-1), DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4), MSA-MW-5-053118 (240-96479-5) and (LCS 240-330979/6)

The following samples were received preserved with hydrochloric acid: TB-053118 (240-96479-1), DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)
Samples DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 06/04/2018 and analyzed on 06/06/2018 and 06/07/2018.

Sample DMW-7S-053118 (240-96479-4)[2.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-329844.

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

GASOLINE RANGE ORGANICS (GRO)
Samples DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 06/05/2018.

Sample DMW-7S-053118 (240-96479-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DIESEL RANGE ORGANICS (DRO)
Samples DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 06/04/2018 and analyzed on 06/05/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-329956.

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

PERCHLORATE
Sample DMW-7I-053118 (240-96479-2) was analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 06/12/2018 and analyzed on 06/14/2018.

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

DISSOLVED METALS (ICPMS)
Samples DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 06/04/2018 and analyzed on 06/11/2018 and 06/12/2018.

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

TOTAL RECOVERABLE METALS (ICPMS)
Samples DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 06/04/2018 and analyzed on 06/11/2018 and 06/12/2018.

The continuing calibration verification (CCV) associated with batch 240-331151 recovered above the upper control limit for beryllium. The samples associated with this CCV were less than the reporting limit for the affected analyte; therefore, the data have been reported. The following sample is impacted: MSA-MW-5-053118 (240-96479-5).

The closing continuing calibration verification low level standard (CCVL) associated with batch 240-331151 recovered above the upper control limit for beryllium. The samples associated with this CCV were less than the reporting limit for the affected analyte; therefore, the data have been reported. The following sample is impacted: MSA-MW-5-053118 (240-96479-5).

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

DISSOLVED MERCURY (CVAA)
Samples DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/04/2018 and analyzed on 06/05/2018.

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

TOTAL MERCURY
Samples DMW-7I-053118 (240-96479-2), DMW-7D-053118 (240-96479-3), DMW-7S-053118 (240-96479-4) and MSA-MW-5-053118 (240-96479-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/04/2018 and analyzed on 06/05/2018.

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-96479-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
Filtration	Sample Filtration	None	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018 - Dump Rd.

TestAmerica Job ID: 240-96479-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-96479-1	TB-053118	Water	05/31/18 00:00	06/02/18 09:35
240-96479-2	DMW-7I-053118	Water	05/31/18 08:35	06/02/18 09:35
240-96479-3	DMW-7D-053118	Water	05/31/18 09:50	06/02/18 09:35
240-96479-4	DMW-7S-053118	Water	05/31/18 12:01	06/02/18 09:35
240-96479-5	MSA-MW-5-053118	Water	05/31/18 14:51	06/02/18 09:35

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

24/C25

Chain of Custody Record

TestAmerica

BALTIMORE 180325

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-51181-[illegible]047.2
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 2 of 2
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1137278			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC08118			
Project Name: MSA GW 2018	Project #: ~~24011891~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) 8260C - Project List w/ TICs	Gro	Dro	1,4 Dioxane	Total metals	Diss metals	Perchlorate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-053118	5/31/18	—	G	Water			2	-	-	-	-	-	-		
DMW-7I-053118	↓	0835	↓	↓			3	-	-	2	1	1	1		
DMW-7D-053118		0950					3	-	-	2	1	1	-		
DMW-7S-053118		1201					3	2	2	2	1	1	-		
MSA-MW-5-053118		1451					3	2	2	2	1	1	-		

240-96479 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Walt Pr	5/31/18 1500	TT INC	[signature]	5/31/18 15:00	
[signature]	5/31/18		[signature]	6/2/18 935	TAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 96479**
Canton Facility

Client Test-Tech Site Name _____ Cooler unpacked by:

Cooler Received on 6/2/18 Opened on 6/2/18

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 16 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice (Water) None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. 2.4 °C Corrected Cooler Temp. 2.5 °C

IR GUN #36 (CF +0.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA
13. Were VOAs on the COC?	(Yes)	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # N/A	Yes	(No)
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

pH Strip Lot# **HC740840**

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JR

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
DMW-7I-053118	240-96479-G-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-7I-053118	240-96479-H-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-7D-053118	240-96479-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-7D-053118	240-96479-G-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
DMW-7S-053118	240-96479-J-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
DMW-7S-053118	240-96479-K-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-5-053118	240-96479-J-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-5-053118	240-96479-K-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-053118	240-96479-1	102	116	106	98
DMW-7I-053118	240-96479-2	103	120	110	102
DMW-7D-053118	240-96479-3	102	118	110	102
DMW-7S-053118	240-96479-4	104	120	113	109
MSA-MW-5-053118	240-96479-5	108	117	111	103
	MB 240-330979/9	110	127	120	103
	LCS 240-330979/6	107	119	114	110
MSA-MW-5-053118 MS	240-96479-5 MS	102	110	112	106
MSA-MW-5-053118 MSD	240-96479-5 MSD	105	117	117	116

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: U1264346.D Lab Sample ID: MB 240-330979/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX12 Date Analyzed: 06/11/2018 12:17

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-330979/6	U1264343.D	06/11/2018 11:07
TB-053118	240-96479-1	U1264354.D	06/11/2018 16:34
DMW-7I-053118	240-96479-2	U1264355.D	06/11/2018 16:57
DMW-7D-053118	240-96479-3	U1264356.D	06/11/2018 17:20
DMW-7S-053118	240-96479-4	U1264357a.D	06/11/2018 17:44
MSA-MW-5-053118	240-96479-5	U1264358.D	06/11/2018 18:07
MSA-MW-5-053118 MS	240-96479-5 MS	U1264365.D	06/11/2018 20:50
MSA-MW-5-053118 MSD	240-96479-5 MSD	U1264366.D	06/11/2018 21:13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330979/9

Matrix: Water | Lab File ID: U1264346.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 12:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330979/9

Matrix: Water | Lab File ID: U1264346.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 12:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-330979/9

Matrix: Water Lab File ID: U1264346.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 12:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	120		73-120
1868-53-7	Dibromofluoromethane (Surr)	110		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	127		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-330979/9

Matrix: Water Lab File ID: U1264346.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 12:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330979/9

Matrix: Water | Lab File ID: U1264346.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 12:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264343.D

Lab ID: LCS 240-330979/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.2	101	73-136	
1,1,1-Trichloroethane	20.0	20.1	101	64-147	
1,1,2,2-Tetrachloroethane	20.0	23.6	118	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.7	99	65-144	
1,1-Dichloroethane	20.0	22.1	110	74-120	
1,1-Dichloroethene	20.0	22.5	112	65-127	
1,1-Dichloropropene	20.0	20.8	104	80-122	
1,2,3-Trichlorobenzene	20.0	17.8	89	31-144	
1,2,3-Trichloropropane	20.0	22.8	114	53-134	
1,2,4-Trichlorobenzene	20.0	17.5	87	34-141	
1,2,4-Trimethylbenzene	20.0	21.7	109	80-120	
1,2-Dibromo-3-Chloropropane	20.0	21.0	105	50-130	
1,2-Dichlorobenzene	20.0	19.7	98	80-120	
1,2-Dichloroethane	20.0	20.9	104	68-133	
1,2-Dichloropropane	20.0	22.3	111	78-127	
1,3-Dichlorobenzene	20.0	19.0	95	80-120	
1,3-Dichloropropane	20.0	21.9	110	71-124	
1,4-Dichlorobenzene	20.0	18.9	94	80-120	
2,2-Dichloropropane	20.0	21.0	105	32-178	
2-Butanone (MEK)	40.0	43.4	109	43-149	
2-Chloroethyl vinyl ether	20.0	24.2	121	58-123	
2-Chlorotoluene	20.0	21.2	106	80-120	
2-Hexanone	40.0	49.5	124	28-169	
4-Chlorotoluene	20.0	20.1	100	79-120	
4-Isopropyltoluene	20.0	21.8	109	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	45.4	113	53-144	
Acetone	40.0	45.4	113	35-131	
Benzene	20.0	20.9	105	79-120	
Bromobenzene	20.0	19.2	96	73-120	
Bromoform	20.0	20.3	102	55-145	
Bromomethane	20.0	18.5	92	17-158	
Carbon disulfide	20.0	19.5	98	49-141	
Carbon tetrachloride	20.0	20.0	100	55-171	
Chlorobenzene	20.0	20.2	101	80-120	
Chlorodibromomethane	20.0	20.7	104	64-129	
Chloroethane	20.0	20.5	103	10-149	
Chloroform	20.0	20.9	105	80-120	
Chloromethane	20.0	19.4	97	59-124	
cis-1,2-Dichloroethene	20.0	19.2	96	77-120	
cis-1,3-Dichloropropene	20.0	21.4	107	75-120	
Dibromomethane	20.0	17.1	85	80-120	
Bromochloromethane	20.0	20.6	103	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264343.D

Lab ID: LCS 240-330979/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.8	74	42-141	
Bromodichloromethane	20.0	20.7	104	79-125	
tert-Butyl alcohol	200	220	110	52-136	
Ethylbenzene	20.0	21.3	106	80-120	
Hexachlorobutadiene	20.0	16.5	82	36-146	
Isopropylbenzene	20.0	21.6	108	80-128	
Methyl tert-butyl ether	20.0	22.4	112	73-120	
Methylene Chloride	20.0	22.1	111	64-140	
m-Xylene & p-Xylene	20.0	21.1	105	80-120	
Naphthalene	20.0	21.0	105	31-127	
n-Butylbenzene	20.0	22.0	110	60-137	
N-Propylbenzene	20.0	20.8	104	76-120	
o-Xylene	20.0	21.4	107	80-120	
sec-Butylbenzene	20.0	21.5	108	76-124	
Styrene	20.0	20.9	105	80-121	
Tetrachloroethene	20.0	17.8	89	80-122	
Toluene	20.0	21.5	107	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	74-124	
trans-1,3-Dichloropropene	20.0	21.9	110	67-120	
Trichloroethene	20.0	18.8	94	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	29.2	146	42-141	*
Vinyl chloride	20.0	19.8	99	65-124	
Xylenes, Total	40.0	42.5	106	80-120	
tert-Butylbenzene	20.0	21.0	105	79-120	
1,2-Dibromoethane	20.0	21.1	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264365.D

Lab ID: 240-96479-5 MS Client ID: MSA-MW-5-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2500	18 U	2240	90	67-142	
1,1,1-Trichloroethane	2500	30 U	2320	93	57-156	
1,1,2,2-Tetrachloroethane	2500	16 U	2520	101	51-123	
1,1,2-Trichlorotrifluoroethane	2500	51 U	2130	85	58-137	
1,1-Dichloroethane	2500	21 U	2590	104	69-122	
1,1-Dichloroethene	2500	24 U	2660	106	62-127	
1,1-Dichloropropene	2500	18 U	2420	97	55-136	
1,2,3-Trichlorobenzene	2500	68 U	1870	75	40-139	
1,2,3-Trichloropropane	2500	30 U	2300	92	41-152	
1,2,4-Trichlorobenzene	2500	33 U	1840	73	26-138	
1,2,4-Trimethylbenzene	2500	8.8 U	2480	99	64-120	
1,2-Dibromo-3-Chloropropane	2500	110 U	2040	82	48-130	
1,2-Dichlorobenzene	2500	19 U	2140	85	70-120	
1,2-Dichloroethane	2500	26 U	2450	98	64-138	
1,2-Dichloropropane	2500	19 U	2610	104	72-131	
1,3-Dichlorobenzene	2500	19 U	2160	87	71-120	
1,3-Dichloropropane	2500	26 U	2450	98	58-137	
1,4-Dichlorobenzene	2500	20 U	2090	84	72-120	
2,2-Dichloropropane	2500	39 U	2300	92	34-153	
2-Butanone (MEK)	5000	150 U	5550	111	34-153	
2-Chloroethyl vinyl ether	2500	33 U	2080	83	10-120	
2-Chlorotoluene	2500	19 U	2340	94	52-134	
2-Hexanone	5000	68 U	5020	100	21-184	
4-Chlorotoluene	2500	11 U	2310	92	52-133	
4-Isopropyltoluene	2500	16 U	2460	98	70-120	
4-Methyl-2-pentanone (MIBK)	5000	53 U	4910	98	53-147	
Acetone	5000	680 U	4850	97	19-133	
Benzene	2500	16 U	2510	100	69-127	
Bromobenzene	2500	15 U	2080	83	59-131	
Bromoform	2500	95 U	1940	78	61-135	
Bromomethane	2500	53 U	2270	91	10-148	
Carbon disulfide	2500	35 U	2280	91	46-143	
Carbon tetrachloride	2500	33 U	2140	85	53-175	
Chlorobenzene	2500	18 U	2320	93	76-120	
Chlorodibromomethane	2500	49 U	2160	86	62-131	
Chloroethane	2500	100 U	2550	102	10-141	
Chloroform	2500	16 U	2450	98	74-125	
Chloromethane	2500	25 U	2400	96	34-127	
cis-1,2-Dichloroethene	2500	3400	5630	90	69-127	
cis-1,3-Dichloropropene	2500	76 U	2460	98	68-120	
Dibromomethane	2500	11 U	1930	77	73-120	
Bromochloromethane	2500	18 U	2360	95	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264365.D

Lab ID: 240-96479-5 MS Client ID: MSA-MW-5-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	2500	44 U	1570	63	45-130	
Bromodichloromethane	2500	21 U	2470	99	75-128	
tert-Butyl alcohol	25000	210 U	22100	88	70-130	
Ethylbenzene	2500	14 U	2440	98	72-121	
Hexachlorobutadiene	2500	100 U	1680	67	30-134	
Isopropylbenzene	2500	11 U	2460	98	70-132	
Methyl tert-butyl ether	2500	8.8 U	2510	100	67-125	
Methylene Chloride	2500	330 U	2670	107	52-137	
m-Xylene & p-Xylene	2500	10 U	2450	98	70-121	
Naphthalene	2500	40 U	2100	84	28-150	
n-Butylbenzene	2500	18 U	2440	97	38-133	
N-Propylbenzene	2500	19 U	2300	92	50-134	
o-Xylene	2500	11 U	2470	99	71-125	
sec-Butylbenzene	2500	16 U	2400	96	43-133	
Styrene	2500	13 U	2410	96	74-125	
Tetrachloroethene	2500	19 U	2020	81	69-126	
Toluene	2500	18 U	2540	102	69-125	
trans-1,2-Dichloroethene	2500	64 J	2620	102	66-131	
trans-1,3-Dichloropropene	2500	84 U	2320	93	59-120	
Trichloroethene	2500	13 U	2190	87	68-129	
Trichlorofluoromethane	2500	56 U	2270	91	28-172	
Vinyl acetate	2500	24 U	3250	130	51-134	
Vinyl chloride	2500	590	3030	97	55-123	
Xylenes, Total	5000	19 U	4920	98	71-122	
tert-Butylbenzene	2500	18 U	2350	94	48-131	
1,2-Dibromoethane	2500	15 U	2280	91	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264366.D

Lab ID: 240-96479-5 MSD Client ID: MSA-MW-5-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2500	2520	101	12	18	67-142	
1,1,1-Trichloroethane	2500	2470	99	6	13	57-156	
1,1,2,2-Tetrachloroethane	2500	2810	112	11	17	51-123	
1,1,2-Trichlorotrifluoroethane	2500	2190	88	3	35	58-137	
1,1-Dichloroethane	2500	2740	110	6	11	69-122	
1,1-Dichloroethene	2500	2720	109	2	14	62-127	
1,1-Dichloropropene	2500	2510	100	4	35	55-136	
1,2,3-Trichlorobenzene	2500	2190	88	16	35	40-139	
1,2,3-Trichloropropane	2500	2840	114	21	12	41-152	F2
1,2,4-Trichlorobenzene	2500	2120	85	15	35	26-138	
1,2,4-Trimethylbenzene	2500	2790	112	12	22	64-120	
1,2-Dibromo-3-Chloropropane	2500	2390	95	16	31	48-130	
1,2-Dichlorobenzene	2500	2510	100	16	19	70-120	
1,2-Dichloroethane	2500	2610	104	6	11	64-138	
1,2-Dichloropropane	2500	2750	110	5	12	72-131	
1,3-Dichlorobenzene	2500	2450	98	12	18	71-120	
1,3-Dichloropropane	2500	2700	108	10	35	58-137	
1,4-Dichlorobenzene	2500	2410	96	14	17	72-120	
2,2-Dichloropropane	2500	2460	99	7	35	34-153	
2-Butanone (MEK)	5000	5650	113	2	23	34-153	
2-Chloroethyl vinyl ether	2500	2200	88	5	35	10-120	
2-Chlorotoluene	2500	2640	105	12	35	52-134	
2-Hexanone	5000	5840	117	15	12	21-184	F2
4-Chlorotoluene	2500	2570	103	11	35	52-133	
4-Isopropyltoluene	2500	2750	110	11	22	70-120	
4-Methyl-2-pentanone (MIBK)	5000	5200	104	6	16	53-147	
Acetone	5000	5130	103	6	35	19-133	
Benzene	2500	2650	106	5	10	69-127	
Bromobenzene	2500	2440	98	16	35	59-131	
Bromoform	2500	2260	90	15	13	61-135	F2
Bromomethane	2500	2220	89	2	35	10-148	
Carbon disulfide	2500	2400	96	5	18	46-143	
Carbon tetrachloride	2500	2350	94	10	17	53-175	
Chlorobenzene	2500	2550	102	9	12	76-120	
Chlorodibromomethane	2500	2460	98	13	15	62-131	
Chloroethane	2500	2500	100	2	35	10-141	
Chloroform	2500	2560	102	4	11	74-125	
Chloromethane	2500	2410	97	1	25	34-127	
cis-1,2-Dichloroethene	2500	5760	95	2	11	69-127	
cis-1,3-Dichloropropene	2500	2570	103	5	13	68-120	
Dibromomethane	2500	2060	82	7	16	73-120	
Bromochloromethane	2500	2430	97	3	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264366.D

Lab ID: 240-96479-5 MSD Client ID: MSA-MW-5-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	2500	1480	59	6	34	45-130	
Bromodichloromethane	2500	2600	104	5	13	75-128	
tert-Butyl alcohol	25000	22500	90	2	35	70-130	
Ethylbenzene	2500	2670	107	9	15	72-121	
Hexachlorobutadiene	2500	2020	81	19	35	30-134	
Isopropylbenzene	2500	2670	107	8	16	70-132	
Methyl tert-butyl ether	2500	2660	106	6	12	67-125	
Methylene Chloride	2500	2730	109	2	12	52-137	
m-Xylene & p-Xylene	2500	2660	107	8	15	70-121	
Naphthalene	2500	2440	98	15	35	28-150	
n-Butylbenzene	2500	2720	109	11	35	38-133	
N-Propylbenzene	2500	2730	109	17	35	50-134	
o-Xylene	2500	2720	109	10	15	71-125	
sec-Butylbenzene	2500	2750	110	13	35	43-133	
Styrene	2500	2670	107	10	14	74-125	
Tetrachloroethene	2500	2250	90	11	18	69-126	
Toluene	2500	2830	113	11	14	69-125	
trans-1,2-Dichloroethene	2500	2730	106	4	11	66-131	
trans-1,3-Dichloropropene	2500	2580	103	10	14	59-120	
Trichloroethene	2500	2310	92	5	12	68-129	
Trichlorofluoromethane	2500	2100	84	8	26	28-172	
Vinyl acetate	2500	3450	138	6	12	51-134	F1
Vinyl chloride	2500	3030	97	0	12	55-123	
Xylenes, Total	5000	5380	108	9	14	71-122	
tert-Butylbenzene	2500	2670	107	13	35	48-131	
1,2-Dibromoethane	2500	2570	103	12	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: BFB3839.D BFB Injection Date: 05/24/2018

Instrument ID: A3UX12 BFB Injection Time: 11:19

Analysis Batch No.: 328331

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	87.1	
175	5.0 - 9.0 % of mass 174	6.9	(8.0) 1
176	95.0 - 101.0 % of mass 174	85.5	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-328331/10	U1263873.D	05/24/2018	12:04
	STD8260 240-328331/11	U1263874.D	05/24/2018	12:27
	STD8260 240-328331/12	U1263875.D	05/24/2018	12:51
	ICIS 240-328331/13	U1263876a.D	05/24/2018	13:14
	STD8260 240-328331/14	U1263877.D	05/24/2018	13:37
	STD8260 240-328331/15	U1263878.D	05/24/2018	14:01
	STD8260 240-328331/16	U1263879.D	05/24/2018	14:24
	STDA9 240-328331/20	U1263883.D	05/24/2018	16:09
	STDA9 240-328331/21	U1263884.D	05/24/2018	16:32
	STDA9 240-328331/22	U1263885.D	05/24/2018	16:55
	STDA9 240-328331/23	U1263886.D	05/24/2018	17:19
	STDA9 240-328331/24	U1263887.D	05/24/2018	17:42
	STDA9 240-328331/25	U1263888.D	05/24/2018	18:05
	ICV 240-328331/26	U1263889.D	05/24/2018	18:28

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.2603	0.1596 0.2588	0.1879	0.2097	0.2205	Ave		0.2161			0.1000	18.3		20.0			
Chloromethane	0.2074 0.1888	0.1877 0.1804	0.1977	0.1856	0.1846	Ave		0.1903			0.1000	4.8		20.0			
Vinyl chloride	0.2355 0.2253	0.2131 0.2200	0.2267	0.2184	0.2153	Ave		0.2220			0.1000	3.5		20.0			
Butadiene	0.1940 0.1994	0.1514 0.1974	0.1906	0.1873	0.1866	Ave		0.1867				8.7		20.0			
Bromomethane	0.2520 0.2446	0.2310 0.2444	0.2365	0.2318	0.2332	Ave		0.2391			0.0500	3.4		20.0			
Chloroethane	+++++ 0.1670	0.1522 0.1660	0.1773	0.1694	0.1669	Ave		0.1665			0.0500	4.9		20.0			
Dichlorofluoromethane	0.4008 0.3897	0.3845 0.3741	0.4047	0.3774	0.3746	Ave		0.3865				3.2		20.0			
Trichlorofluoromethane	0.3368 0.4334	0.3271 0.4354	0.3952	0.3978	0.4019	Ave		0.3897			0.1000	11.0		20.0			
Ethyl ether	0.1493 0.1341	0.1445 0.1280	0.1452	0.1377	0.1283	Ave		0.1382				6.1		20.0			
Acrolein	+++++ 0.0159	0.0173 0.0153	0.0166	0.0153	0.0155	Ave		0.0160				5.2		20.0			
1,1-Dichloroethene	0.2449 0.2791	0.2600 0.2719	0.2932	0.2858	0.2708	Ave		0.2722			0.1000	5.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1633 0.2132	0.1574 0.2146	0.1765	0.2150	0.1920	Ave		0.1903			0.0500	13.1		20.0			
Acetone	0.1362 0.0312	0.0816 0.0284	0.0371	0.0355	0.0297	Lin1	0.1094	0.0290			0.0100	9.0			0.9950		0.9900
Iodomethane	0.3231 0.3397	0.3218 0.3308	0.3571	0.3402	0.3221	Ave		0.3335				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6495 0.5749	0.5392 0.5649	0.5900	0.5818	0.5519	Ave		0.5789			0.1000	6.2		20.0			
3-Chloro-1-propene	0.2475 0.1995	0.2215 0.1969	0.2149	0.2060	0.1896	Ave		0.2108				9.2		20.0			
Methyl acetate	+++++ 0.0774	0.0837 0.0748	0.0851	0.0806	0.0755	Ave		0.0795		*	0.1000	5.4		20.0			
Methylene Chloride	0.4380 0.1993	0.3213 0.1925	0.2268	0.2134	0.1923	Lin1	0.1303	0.1948			0.1000	6.8			0.9980		0.9900
2-Methyl-2-propanol	0.0171 0.0129	0.0156 0.0126	0.0141	0.0133	0.0121	Ave		0.0139				12.8		20.0			
Acrylonitrile	0.0417 0.0394	0.0367 0.0384	0.0414	0.0395	0.0376	Ave		0.0392				4.7		20.0			
trans-1,2-Dichloroethene	0.2490 0.2464	0.2315 0.2456	0.2530	0.2538	0.2385	Ave		0.2454			0.1000	3.3		20.0			
Methyl tert-butyl ether	0.5466 0.5478	0.5391 0.5434	0.5741	0.5509	0.5300	Ave		0.5474			0.1000	2.5		20.0			
Hexane	0.1442 0.2124	0.1444 0.2137	0.1655	0.2165	0.1829	Ave		0.1828				17.6		20.0			
1,1-Dichloroethane	0.2725 0.2856	0.2504 0.2795	0.2801	0.2750	0.2700	Ave		0.2733			0.2000	4.2		20.0			
Vinyl acetate	0.2049 0.1712	0.1486 0.1712	0.1684	0.1714	0.1637	Ave		0.1713				9.9		20.0			
2,2-Dichloropropane	0.3326 0.3112	0.3168 0.3086	0.3113	0.3073	0.2950	Ave		0.3118				3.6		20.0			
cis-1,2-Dichloroethene	0.2183 0.2381	0.2079 0.2310	0.2360	0.2380	0.2289	Ave		0.2283			0.1000	5.0		20.0			
2-Butanone (MEK)	0.0173 0.0168	0.0153 0.0169	0.0162	0.0165	0.0173	Ave		0.0166			0.0100	4.4		20.0			
Chlorobromomethane	0.1044 0.1207	0.1401 0.1163	0.1338	0.1249	0.1142	Ave		0.1221				9.9		20.0			
Tetrahydrofuran	0.0443 0.0288	0.0332 0.0272	0.0329	0.0292	0.0268	Ave		0.0318				19.2		20.0			
Chloroform	0.3438 0.3710	0.3124 0.3603	0.3733	0.3631	0.3548	Ave		0.3541			0.2000	5.9		20.0			
1,1,1-Trichloroethane	0.3716 0.3736	0.3211 0.3687	0.3683	0.3664	0.3544	Ave		0.3606			0.1000	5.1		20.0			
Cyclohexane	0.2329 0.3488	0.2672 0.3461	0.3014	0.3503	0.3172	Ave		0.3091			0.1000	14.7		20.0			
1,1-Dichloropropene	0.2929 0.2971	0.2649 0.2887	0.2947	0.3019	0.2853	Ave		0.2894				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2662 0.3269	0.2488 0.3244	0.3003	0.3102	0.3070	Ave		0.2977			0.1000	9.9		20.0			
Isobutyl alcohol	0.0029 0.0027	0.0033 0.0026	0.0027	0.0027	0.0028	Ave		0.0028				8.3		20.0			
Benzene	0.8220 0.8347	0.8632 0.8053	0.8648	0.8617	0.8164	Ave		0.8383			0.5000	3.0		20.0			
1,2-Dichloroethane	0.2781 0.2490	0.2459 0.2375	0.2674	0.2543	0.2422	Ave		0.2535			0.1000	5.7		20.0			
n-Heptane	+++++ 0.1461	0.7106 0.1358	0.1626	0.1663	0.1391	Lin1	0.5718	0.1267				11.1			0.9960		0.9900
Trichloroethene	0.2773 0.2678	0.2388 0.2554	0.2699	0.2673	0.2548	Ave		0.2616			0.1500	4.9		20.0			
Methylcyclohexane	0.3305 0.4054	0.2970 0.4008	0.3354	0.4164	0.3766	Ave		0.3660			0.1000	12.4		20.0			
1,2-Dichloropropane	0.1712 0.1672	0.1493 0.1616	0.1772	0.1756	0.1655	Ave		0.1668			0.1000	5.7		20.0			
Dibromomethane	0.1515 0.1343	0.1266 0.1299	0.1422	0.1375	0.1292	Ave		0.1359				6.4		20.0			
1,4-Dioxane	+++++ 0.0009	0.0006 0.0009	0.0009	0.0010	0.0009	Ave		0.0009				13.1		20.0			
Dichlorobromomethane	0.2416 0.2938	0.2446 0.2857	0.2836	0.2940	0.2801	Ave		0.2748			0.1500	8.1		20.0			
2-Chloroethyl vinyl ether	0.0806 0.0946	0.0897 0.0919	0.1013	0.0967	0.0908	Ave		0.0922				7.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.3094	0.2730 0.3008	0.3091	0.3181	0.2975	Ave		0.3013			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.1140 0.1171	0.1013 0.1094	0.1240	0.1197	0.1134	Ave		0.1141			0.0500	6.4		20.0			
Toluene	1.3467 1.3118	1.1191 1.2374	1.3358	1.3489	1.2626	Ave		1.2803			0.4000	6.5		20.0			
trans-1,3-Dichloropropene	0.3185 0.3610	0.3260 0.3476	0.3434	0.3500	0.3436	Ave		0.3414			0.1000	4.3		20.0			
Ethyl methacrylate	0.2428 0.2914	0.1957 0.2820	0.2901	0.2943	0.2828	Ave		0.2684				13.6		20.0			
1,1,2-Trichloroethane	0.2852 0.2262	0.2091 0.2131	0.2311	0.2343	0.2150	Ave		0.2306			0.1000	11.2		20.0			
Tetrachloroethene	0.3640 0.3537	0.3678 0.3338	0.3594	0.3555	0.3378	Ave		0.3532			0.1500	3.6		20.0			
1,3-Dichloropropane	0.3663 0.3709	0.3736 0.3436	0.3924	0.3874	0.3539	Ave		0.3697				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.1137 0.1004	0.0944 0.0942	0.0980	0.1077	0.0963	Ave		0.1007			0.0500	7.3		20.0			
Chlorodibromomethane	0.2426 0.2756	0.2085 0.2695	0.2562	0.2580	0.2589	Ave		0.2528				8.8		20.0			
Ethylene Dibromide	0.2253 0.2319	0.2226 0.2237	0.2249	0.2389	0.2258	Ave		0.2276				2.5		20.0			
Chlorobenzene	0.9032 0.8827	0.8855 0.8358	0.9087	0.9064	0.8416	Ave		0.8806			0.3000	3.4		20.0			
1,1,1,2-Tetrachloroethane	0.2269 0.3044	0.2708 0.2998	0.2923	0.3039	0.2896	Ave		0.2840				9.8		20.0			
Ethylbenzene	0.5365 0.5247	0.4708 0.4913	0.5155	0.5171	0.4914	Ave		0.5068				4.5		20.0			
m-Xylene & p-Xylene	0.5462 0.6441	0.5853 0.6064	0.6290	0.6595	0.6120	Ave		0.6118				6.2		20.0			
o-Xylene	0.5661 0.6282	0.5236 0.5896	0.6127	0.6224	0.5928	Ave		0.5908				6.2		20.0			
Styrene	0.8186 1.0437	0.8060 1.0026	0.9867	1.0463	0.9911	Ave		0.9564			0.3000	10.6		20.0			
Bromoform	0.1105 0.1602	0.1050 0.1610	0.1327	0.1459	0.1493	Ave		0.1378			0.1000	16.4		20.0			
Isopropylbenzene	1.3938 1.6579	1.3584 1.5726	1.6265	1.6491	1.6098	Ave		1.5526			0.1000	8.0		20.0			
1,1,2,2-Tetrachloroethane	0.5045 0.4821	0.5217 0.4622	0.5362	0.5136	0.4747	Ave		0.4993			0.3000	5.4		20.0			
Bromobenzene	0.7775 0.6744	0.6592 0.6375	0.7145	0.6830	0.6534	Ave		0.6856				6.9		20.0			
1,2,3-Trichloropropane	0.2212 0.1853	0.1986 0.1774	0.2004	0.2035	0.1816	Ave		0.1954				7.8		20.0			
trans-1,4-Dichloro-2-butene	0.1209 0.1066	0.1082 0.1041	0.1067	0.1106	0.1087	Ave		0.1094				5.0		20.0			
N-Propylbenzene	0.7810 0.8362	0.7719 0.7988	0.8577	0.8470	0.8190	Ave		0.8159				4.1		20.0			
2-Chlorotoluene	0.5876 0.6916	0.6326 0.6547	0.7137	0.7013	0.6731	Ave		0.6649				6.6		20.0			
1,3,5-Trimethylbenzene	2.1686 2.4046	2.1972 2.2268	2.5058	2.4349	2.3842	Ave		2.3317				5.7		20.0			
4-Chlorotoluene	0.6197 0.7362	0.7190 0.6968	0.7891	0.7523	0.7173	Ave		0.7186				7.3		20.0			
tert-Butylbenzene	1.8792 2.1952	2.1226 2.0625	2.2747	2.2647	2.1429	Ave		2.1345				6.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1653 2.4838	2.1121 2.3064	2.5623	2.5789	2.4738	Ave		2.3832				8.0		20.0			
sec-Butylbenzene	2.7737 3.1879	2.9667 2.9457	3.2622	3.2796	3.1613	Ave		3.0824				6.2		20.0			
1,3-Dichlorobenzene	1.5385 1.4184	1.3127 1.3284	1.4509	1.4168	1.3707	Ave		1.4052			0.6000	5.5		20.0			
4-Isopropyltoluene	2.2676 2.7935	2.2972 2.6408	2.8270	2.9023	2.7638	Ave		2.6417				9.8		20.0			
1,4-Dichlorobenzene	1.4706 1.4265	1.4330 1.3421	1.5140	1.4335	1.4032	Ave		1.4318			0.5000	3.7		20.0			
n-Butylbenzene	1.9934 2.2812	2.0508 2.1308	2.2919	2.4064	2.2477	Ave		2.2003				6.7		20.0			
1,2-Dichlorobenzene	1.3934 1.3187	1.2311 1.2432	1.3592	1.3305	1.2923	Ave		1.3098			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	0.1032 0.1100	0.0809 0.1011	0.1044	0.1122	0.1037	Ave		0.1022			0.0500	10.0		20.0			
1,2,4-Trichlorobenzene	0.7311 0.8173	0.7877 0.7727	0.8469	0.8445	0.7941	Ave		0.7992			0.2000	5.1		20.0			
Hexachlorobutadiene	0.2879 0.3170	0.2808 0.2948	0.3381	0.3375	0.3085	Ave		0.3092				7.4		20.0			
Naphthalene	1.6292 1.8963	1.5873 1.7441	1.9389	1.9038	1.8201	Ave		1.7885				7.8		20.0			
1,2,3-Trichlorobenzene	0.7541 0.7429	0.7203 0.6908	0.7879	0.7603	0.7277	Ave		0.7406				4.2		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2216	0.2440 0.2155	0.2291	0.2485	0.2201	Ave		0.2298				5.9		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2164	0.2762 0.2040	0.2290	0.2496	0.2251	Ave		0.2334				11.1		20.0			
Toluene-d8 (Surr)	+++++ 1.1675	1.1849 1.0961	1.1790	1.3154	1.1696	Ave		1.1854				6.0		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4427	0.5009 0.4124	0.4521	0.4866	0.4365	Ave		0.4552				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 836716	10659 1356845	129504	307447	527839	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	6573 606767	12534 945518	136250	272132	441934	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	7466 724175	14233 1153367	156204	320226	515473	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	6149 641049	10115 1034602	131327	274536	446820	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	7989 786266	15428 1281423	162987	339913	558324	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	+++++ 536782	10167 870008	122182	248430	399560	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	12704 1252708	25683 1961196	278895	553280	896806	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Ave	10676 1393219	21847 2282675	272303	583216	962155	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	4731 431146	9649 670873	100073	201952	307128	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	+++++ 255151	5789 401377	57110	111900	185343	+++++ 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	7762 897045	17367 1425304	202037	418960	648405	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	5177 685245	10512 1125177	121624	315153	459532	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	8636 200513	10906 297733	51152	103989	141984	1.00 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	10240 1092137	21497 1733962	246046	498788	771044	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	20586 1848049	36013 2961360	406574	852996	1321243	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	7845 641173	14794 1032415	148046	302041	453905	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	+++++ 497671	11179 784563	117215	236205	361615	+++++ 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Lin1	13884 640679	21463 1009068	156249	312803	460479	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Methyl-2-propanol	FB	Ave	5405 413396	10432 660089	96856	194350	290646	5.00 400	10.0 600	100	200	300
Acrylonitrile	FB	Ave	13224 1265136	24514 2014229	285524	578925	900156	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	7894 792117	15466 1287479	174318	372117	570882	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	17327 1760853	36007 2848507	395602	807630	1268870	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	4572 682811	9647 1120146	114071	317391	437966	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	8637 918050	16722 1465220	192994	403240	646322	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	6494 550377	9924 897393	116069	251270	391830	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2,2-Dichloropropane	FB	Ave	10542 1000311	21160 1617945	214490	450555	706156	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	6920 765388	13888 1211170	162638	348873	548052	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1099 107946	2039 177321	22285	48377	82812	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorobromomethane	FB	Ave	3309 387997	9357 609521	92218	183091	273510	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	2811 185117	4434 284989	45365	85475	128248	1.00 80.0	2.00 120	20.0	40.0	60.0
Chloroform	FB	Ave	10896 1192612	20868 1888956	257197	532313	849391	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	11778 1201100	21445 1932932	253811	537246	848496	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	7382 1121309	17850 1814262	207704	513648	759439	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	9285 955093	17695 1513250	203081	442674	682919	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	8439 1050762	16620 1700503	206908	454802	735068	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	2281 219722	5559 342515	46801	99816	167628	12.5 1000	25.0 1500	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	26054 2683174	57658 4221296	595916	1263408	1954561	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	8815 800372	16427 1245124	184229	372901	579790	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Lin1	+++++ 469684	47464 711684	112066	243761	332888	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	8790 860920	15949 1338647	185998	391958	610011	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	10475 1303087	19836 2101031	231084	610517	901520	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	5426 537548	9973 847063	122090	257442	396260	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	4803 431685	8453 681210	98005	201657	309359	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 58909	859 92887	12208	28340	43042	+++++ 800	20.0 1200	200	400	600
Dichlorobromomethane	FB	Ave	7658 944342	16340 1497600	195430	430996	670514	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	5108 608105	11983 963771	139592	283678	434942	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	9555 994497	18238 1577074	213023	466323	712122	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	7226 752921	13539 1147394	170870	350895	542899	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	33763 3383969	60013 5227197	758286	1597185	2445935	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7985 931257	17482 1468166	194915	414417	665678	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	6087 751622	10497 1191373	164680	348434	547863	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	7149 583454	11216 900112	131179	277419	416554	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	9126 912389	19725 1410194	204025	420995	654320	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	9182 956812	20035 1451437	222736	458728	685491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	5700 518082	10122 795884	111241	255113	373063	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	6083 711006	11180 1138432	145413	305548	501614	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylene Dibromide	CBNZ d5	Ave	5649 598330	11937 944967	127659	282834	437354	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22642 2277174	47489 3530784	515849	1073289	1630422	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5688 785271	14524 1266544	165922	359896	561051	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	13451 1353560	25247 2075431	292638	612293	952035	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13693 1661542	31386 2561742	357074	780858	1185491	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	14191 1620511	28079 2490453	347825	736984	1148412	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	20523 2692449	43221 4235085	560106	1238894	1920005	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	2771 413209	5633 680252	75312	172781	289170	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	34943 4276917	72849 6643081	923332	1952636	3118455	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6482 726920	14014 1151993	162720	342254	524399	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	9990 1016942	17706 1588832	216825	455070	721754	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	2842 279423	5335 442197	60819	135587	200642	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1553 160803	2905 259472	32370	73667	120023	0.500 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	10035 1260863	20733 1990915	260304	564400	904727	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	7550 1042842	16993 1631918	216589	467282	743492	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	27866 3625921	59018 5550188	760465	1622449	2633651	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	7963 1110149	19313 1736739	239483	501248	792316	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	24147 3310251	57014 5140650	690332	1509038	2367105	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	27823 3745450	56731 5748723	777610	1718376	2732590	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	35641 4807054	79687 7341976	990023	2185251	3492121	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	19769 2138839	35261 3310983	440321	944059	1514166	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	29137 4212380	61703 6582081	857947	1933833	3053017	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	18896 2150985	38491 3345122	459469	955199	1550073	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	25614 3439902	55086 5310842	695561	1603447	2482925	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	17905 1988542	33068 3098556	412500	886511	1427528	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1326 165910	2173 251884	31697	74782	114565	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	9394 1232350	21159 1925969	257019	562699	877240	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Ave	3700 477944	7542 734897	102618	224900	340816	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	20935 2859477	42636 4347233	588415	1268563	2010582	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9690 1120212	19347 1721913	239101	506574	803821	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 712237	16295 1129611	157886	364266	526872	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 695647	18449 1069518	157765	365938	538919	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 3011915	63545 4630386	669298	1557504	2265712	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1142168	26861 1742177	256666	576212	845559	+++++ 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-328331/10	U1263873.D
Level 2	STD8260 240-328331/11	U1263874.D
Level 3	STD8260 240-328331/12	U1263875.D
Level 4	ICIS 240-328331/13	U1263876a.D
Level 5	STD8260 240-328331/14	U1263877.D
Level 6	STD8260 240-328331/15	U1263878.D
Level 7	STD8260 240-328331/16	U1263879.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	-7.8						50					
Methylene Chloride	-8.9						50					
n-Heptane	+++++	9.6						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0149 0.0086	0.0117	0.0096	0.0091	0.0087	Lin1	0.0331	0.0087				5.1			0.9990		0.9900
Diisopropyl ether	0.2136 0.1661	0.1537	0.1706	0.1671	0.1641	Ave		0.1725				12.1		20.0			
2-Chloro-1,3-butadiene	0.2218 0.2515	0.2229	0.2470	0.2431	0.2439	Ave		0.2384				5.4		20.0			
Ethyl tert-butyl ether	0.4589 0.4718	0.4486	0.4746	0.4744	0.4625	Ave		0.4651				2.2		20.0			
Ethyl acetate	0.0909 0.0956	0.1013	0.0981	0.0965	0.0934	Ave		0.0960				3.8		20.0			
Propionitrile	0.0135 0.0124	0.0112	0.0123	0.0130	0.0121	Ave		0.0124				6.4		20.0			
Methacrylonitrile	0.0559 0.0581	0.0518	0.0576	0.0577	0.0565	Ave		0.0563				4.2		20.0			
Tert-amyl methyl ether	0.5437 0.6092	0.5168	0.5806	0.5993	0.5972	Ave		0.5745				6.3		20.0			
n-Butanol	0.0011 0.0022	0.0012	0.0018	0.0021	0.0020	Lin1	-0.019	0.0021				12.8			0.9970		0.9900
Ethyl acrylate	0.1408 0.1655	0.1361	0.1640	0.1551	0.1612	Ave		0.1538				8.1		20.0			
Methyl methacrylate	0.1001 0.0981	0.0960	0.0956	0.0962	0.0964	Ave		0.0971				1.8		20.0			
2-Nitropropane	0.0241 0.0213	0.0177	0.0173	0.0177	0.0202	Ave		0.0197				13.8		20.0			
n-Butyl acetate	0.2041 0.2537	0.2303	0.2253	0.2361	0.2392	Ave		0.2314				7.1		20.0			
1-Chlorohexane	0.4105 0.4711	0.4132	0.4259	0.4405	0.4652	Ave		0.4377				5.9		20.0			
Cyclohexanone	+++++ 0.0034	0.0033	0.0028	0.0032	0.0032	Ave		0.0032				7.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.2700 0.3211	0.2502	0.3057	0.3057	0.3364	Ave		0.2982				10.8		20.0			
1,2,3-Trimethylbenzene	1.8506 2.6441	2.0229	2.4674	2.5828	2.6602	Ave		2.3713				14.7		20.0			
Benzyl chloride	+++++ 1.0064	0.5621	0.6642	0.8127	0.9426	Ave		0.7976				23.3	*	20.0			
1,3,5-Trichlorobenzene	0.7965 1.0155	0.8427	0.9496	1.0009	1.0090	Ave		0.9357				10.1		20.0			
2-Methylnaphthalene	0.6928 1.3694	0.7960	1.0557	1.2692	1.3391	Lin1	-0.934	1.3355				14.4			0.9970		0.9900
1-Chloro-1-fluoroethane TIC	+++++ 0.0074	+++++	0.0043	0.0087	0.0081	Ave		0.0072				27.2	*	20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	5250 423243	8044	67959	133267	269967	5.00 600	10.0	100	200	400
Diisopropyl ether	FB	Ave	7539 817942	10575	120398	243520	511789	0.500 60.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	7826 1238431	15336	174290	354278	760814	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	16194 2323130	30867	334911	691479	1442619	0.500 60.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	6415 941575	13940	138394	281195	582740	1.00 120	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	4770 611325	7693	86742	188891	378461	5.00 600	10.0	100	200	400
Methacrylonitrile	FB	Ave	19726 2859077	35630	406374	840863	1763537	5.00 600	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	19188 2999911	35557	409724	873561	1862508	0.500 60.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Lin1	931 270622	2047	31540	74794	157631	12.5 1500	25.0	250	500	1000
Ethyl acrylate	FB	Ave	4969 814876	9363	115737	226113	502874	0.500 60.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	7065 965742	13209	134968	280528	601425	1.00 120	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	1704 209992	2435	24345	51463	125697	1.00 120	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	5784 923078	12659	127078	266124	558797	0.500 60.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	11635 1714225	22715	240265	496450	1086662	0.500 60.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	+++++ 125128	1814	15861	36026	74201	+++++ 600	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	7922 1187211	13520	176938	345649	778009	1.00 120	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	27150 4888493	54649	714091	1460244	3076169	0.500 60.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	+++++ 1860588	15185	192228	459481	1090030	+++++ 60.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11685 1877495	22765	274829	565868	1166769	0.500 60.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	20328 5063616	43010	611047	1435115	3097024	1.00 120	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	+++++ 36645	+++++	3064	12753	25187	+++++ 60.0	+++++	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 16:09 Calibration End Date: 05/24/2018 18:05 Calibration ID: 45349

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-328331/20	U1263883.D
Level 2	STDA9 240-328331/21	U1263884.D
Level 3	STDA9 240-328331/22	U1263885.D
Level 4	STDA9 240-328331/23	U1263886.D
Level 5	STDA9 240-328331/24	U1263887.D
Level 6	STDA9 240-328331/25	U1263888.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	-4.8						50					
n-Butanol	20.3						50					
2-Methylnaphthalene	21.8						50					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 12:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 14:24

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2298	0.2443		0.0213	0.0200	6.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2334	0.2489		0.0213	0.0200	6.6	30.0
Toluene-d8 (Surr)	Ave	1.185	1.303		0.0220	0.0200	9.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4552	0.4324		0.0190	0.0200	-5.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-328331/26 Calibration Date: 05/24/2018 18:28

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1263889.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0091		0.206	0.200	2.8	30.0
Diisopropyl ether	Ave	0.1725	0.1813		0.0210	0.0200	5.1	30.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2607		0.0219	0.0200	9.4	30.0
Ethyl tert-butyl ether	Ave	0.4651	0.5016		0.0216	0.0200	7.8	30.0
Ethyl acetate	Ave	0.0960	0.0951		0.0396	0.0400	-0.9	50.0
Propionitrile	Ave	0.0124	0.0130		0.209	0.200	4.6	30.0
Methacrylonitrile	Ave	0.0563	0.0586		0.208	0.200	4.2	30.0
Tert-amyl methyl ether	Ave	0.5745	0.6127		0.0213	0.0200	6.6	30.0
n-Butanol	Lin1		0.0022		0.518	0.500	3.6	30.0
Ethyl acrylate	Ave	0.1538	0.1592		0.0207	0.0200	3.5	30.0
Methyl methacrylate	Ave	0.0971	0.0975		0.0402	0.0400	0.4	30.0
2-Nitropropane	Ave	0.0197	0.0188		0.0382	0.0400	-4.5	30.0
n-Butyl acetate	Ave	0.2314	0.2409		0.0208	0.0200	4.1	30.0
1-Chlorohexane	Ave	0.4377	0.4642		0.0212	0.0200	6.0	30.0
Cyclohexanone	Ave	0.0032	0.0033		0.210	0.200	4.9	30.0
Pentachloroethane	Ave	0.2982	0.3135		0.0421	0.0400	5.1	30.0
1,2,3-Trimethylbenzene	Ave	2.371	2.696		0.0227	0.0200	13.7	30.0
Benzyl chloride	Ave	0.7976	0.8396		0.0211	0.0200	5.3	30.0
1,3,5-Trichlorobenzene	Ave	0.9357	1.031		0.0220	0.0200	10.2	30.0
2-Methylnaphthalene	Lin1		1.249		0.0381	0.0400	-4.7	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: BFB3856.D BFB Injection Date: 06/05/2018

Instrument ID: A3UX12 BFB Injection Time: 17:08

Analysis Batch No.: 330161

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.0	
75	30.0 - 60.0 % of mass 95	48.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	82.4	
175	5.0 - 9.0 % of mass 174	7.1	(8.6) 1
176	95.0 - 101.0 % of mass 174	78.3	(95.1) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 240-330161/4	U1264191.D	06/05/2018	17:54
	ICV 240-330161/5	U1264192.D	06/05/2018	18:17
	STD8260 240-330161/9	U1264193.D	06/05/2018	18:47
	STD8260 240-330161/10	U1264194.D	06/05/2018	19:11
	STD8260 240-330161/11	U1264195.D	06/05/2018	19:34
	STD8260 240-330161/13	U1264196.D	06/05/2018	19:57
	STD8260 240-330161/14	U1264197.D	06/05/2018	20:21
	STD8260 240-330161/15	U1264198b.D	06/05/2018	20:44

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-330161/15	U1264198b.D
Level 2	STD8260 240-330161/14	U1264197.D
Level 3	STD8260 240-330161/13	U1264196.D
Level 4	ICIS 240-330161/4	U1264191.D
Level 5	STD8260 240-330161/11	U1264195.D
Level 6	STD8260 240-330161/10	U1264194.D
Level 7	STD8260 240-330161/9	U1264193.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2691 0.3808	0.3331 0.3417	0.3641	0.3729	0.4050	Ave		0.3524			0.1000	12.4		20.0			
Chloromethane	0.2489 0.2190	0.2299 0.2092	0.2294	0.2359	0.2310	Ave		0.2290			0.1000	5.5		20.0			
Vinyl chloride	0.2688 0.2625	0.2671 0.2460	0.2561	0.2735	0.2753	Ave		0.2642			0.1000	3.9		20.0			
Butadiene	0.2589 0.2446	0.2145 0.2214	0.2359	0.2386	0.2485	Ave		0.2375				6.5		20.0			
Bromomethane	0.2480 0.2687	0.2519 0.3038	0.2382	0.2738	0.2654	Ave		0.2643			0.0500	8.1		20.0			
Chloroethane	0.1704 0.1849	0.1748 0.1881	0.1721	0.1926	0.1898	Ave		0.1818			0.0500	5.0		20.0			
Dichlorofluoromethane	0.4475 0.4046	0.4151 0.3981	0.3864	0.4353	0.4166	Ave		0.4148				5.1		20.0			
Trichlorofluoromethane	0.4681 0.5190	0.4472 0.4874	0.4880	0.5336	0.5425	Ave		0.4980			0.1000	7.0		20.0			
Ethyl ether	0.1395 0.1420	0.1461 0.1356	0.1364	0.1528	0.1462	Ave		0.1427				4.3		20.0			
Acrolein	0.0260 0.0222	0.0215 0.0202	0.0214	0.0243	0.0221	Ave		0.0225				8.7		20.0			
1,1-Dichloroethene	0.3283 0.2953	0.2919 0.3003	0.2818	0.3296	0.3193	Ave		0.3066			0.1000	6.2		20.0			
1,1,2-Trichlorotrifluoroethane	0.2389 0.2698	0.2729 0.2795	0.2632	0.2948	0.2915	Ave		0.2730			0.0500	6.9		20.0			
Acetone	+++++ 0.0300	0.0719 0.0281	0.0309	0.0332	0.0305	Lin1	0.0881	0.0284			0.0100	6.2			0.9980		0.9900
Iodomethane	0.4259 0.4330	0.4270 0.4152	0.4099	0.4414	0.4475	Ave		0.4286				3.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9404 0.6680	0.8832 0.6672	0.6687	0.7252	0.7131	Ave		0.7522			0.1000	15.0		20.0			
3-Chloro-1-propene	0.2207 0.2157	0.2297 0.2123	0.2113	0.2355	0.2224	Ave		0.2211				4.1		20.0			
Methyl acetate	0.0905 0.0773	0.0890 0.0757	0.0790	0.0859	0.0797	Ave		0.0825		*	0.1000	7.2		20.0			
Methylene Chloride	+++++ 0.2105	0.2556 0.1996	0.2214	0.2287	0.2196	Ave		0.2226			0.1000	8.6		20.0			
tert-Butyl alcohol	0.0148 0.0164	0.0158 0.0153	0.0156	0.0170	0.0165	Ave		0.0159				4.9		20.0			
Acrylonitrile	0.0458 0.0410	0.0400 0.0387	0.0384	0.0430	0.0412	Ave		0.0412				6.3		20.0			
trans-1,2-Dichloroethene	0.3145 0.2654	0.3053 0.2657	0.2621	0.2922	0.2790	Ave		0.2835			0.1000	7.4		20.0			
Methyl tert-butyl ether	0.5261 0.5821	0.5445 0.5453	0.5696	0.6281	0.5949	Ave		0.5701			0.1000	6.1		20.0			
Hexane	0.2429 0.2646	0.2609 0.2805	0.2585	0.3072	0.2863	Ave		0.2716				7.8		20.0			
1,1-Dichloroethane	0.2792 0.3103	0.2999 0.3099	0.2960	0.3368	0.3216	Ave		0.3077			0.2000	6.0		20.0			
Vinyl acetate	0.1428 0.1554	0.1722 0.1489	0.1517	0.1720	0.1608	Ave		0.1577				7.2		20.0			
2,2-Dichloropropane	0.3256 0.3421	0.3432 0.3441	0.3249	0.3751	0.3585	Ave		0.3448				5.1		20.0			
cis-1,2-Dichloroethene	0.3056 0.2718	0.2914 0.2649	0.2625	0.2819	0.2799	Ave		0.2797			0.1000	5.4		20.0			
2-Butanone (MEK)	0.0140 0.0175	0.0182 0.0172	0.0174	0.0183	0.0185	Ave		0.0173			0.0100	8.8		20.0			
Bromochloromethane	0.1595 0.1189	0.1726 0.1129	0.1188	0.1296	0.1197	Ave		0.1331				17.5		20.0			
Tetrahydrofuran	0.0265 0.0271	0.0309 0.0265	0.0247	0.0294	0.0285	Ave		0.0277				7.5		20.0			
Chloroform	0.3969 0.3856	0.3888 0.3802	0.3841	0.4225	0.3981	Ave		0.3937			0.2000	3.6		20.0			
1,1,1-Trichloroethane	0.3666 0.3999	0.3622 0.4078	0.3871	0.4397	0.4225	Ave		0.3980			0.1000	7.1		20.0			
Cyclohexane	0.3470 0.3993	0.3843 0.4034	0.3966	0.4431	0.4303	Ave		0.4006			0.1000	7.8		20.0			
1,1-Dichloropropene	0.3019 0.3048	0.3118 0.3108	0.2941	0.3426	0.3275	Ave		0.3134				5.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2867 0.3576	0.3105 0.3668	0.3326	0.3847	0.3866	Ave		0.3465			0.1000	11.0		20.0			
Isobutyl alcohol	+++++ 0.0033	0.0032 0.0032	0.0028	0.0031	0.0034	Ave		0.0032				6.1		20.0			
Benzene	0.8402 0.8706	0.9024 0.8616	0.8552	0.9673	0.8968	Ave		0.8849			0.5000	4.8		20.0			
1,2-Dichloroethane	0.2707 0.2279	0.2300 0.2218	0.2331	0.2619	0.2357	Ave		0.2402			0.1000	7.7		20.0			
n-Heptane	+++++ 0.1603	0.6710 0.1636	0.1872	0.1926	0.1727	Lin1	0.5106	0.1536				7.8			0.9970		0.9900
Trichloroethene	0.2816 0.2939	0.2917 0.2941	0.2829	0.3187	0.3091	Ave		0.2960			0.1500	4.6		20.0			
Methylcyclohexane	0.4186 0.4540	0.4143 0.4656	0.4319	0.5073	0.4923	Ave		0.4548			0.1000	7.9		20.0			
1,2-Dichloropropane	0.1752 0.1670	0.1674 0.1658	0.1667	0.1881	0.1717	Ave		0.1717			0.1000	4.6		20.0			
Dibromomethane	0.1364 0.1459	0.1591 0.1386	0.1358	0.1512	0.1489	Ave		0.1451				6.0		20.0			
1,4-Dioxane	+++++ 0.0015	0.0015 0.0014	0.0015	0.0016	0.0015	Ave		0.0015				2.9		20.0			
Bromodichloromethane	0.2717 0.2937	0.2678 0.2885	0.2723	0.3233	0.3002	Ave		0.2882			0.1500	6.9		20.0			
2-Chloroethyl vinyl ether	0.0698 0.0851	0.0822 0.0837	0.0737	0.0806	0.0820	Ave		0.0796				7.1		20.0			
cis-1,3-Dichloropropene	0.3064 0.3111	0.3136 0.3049	0.2951	0.3305	0.3195	Ave		0.3116			0.1500	3.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.1069 0.1041	0.0940 0.0996	0.0962	0.1101	0.1042	Ave		0.1021			0.0500	5.7		20.0			
Toluene	1.2483 1.3382	1.2626 1.3008	1.2673	1.4337	1.3695	Ave		1.3172			0.4000	5.1		20.0			
trans-1,3-Dichloropropene	0.3434 0.3527	0.3541 0.3324	0.3214	0.3595	0.3468	Ave		0.3443			0.1000	3.9		20.0			
Ethyl methacrylate	0.2226 0.2828	0.2407 0.2665	0.2462	0.2851	0.2789	Ave		0.2604				9.3		20.0			
1,1,2-Trichloroethane	0.2215 0.2298	0.2423 0.2124	0.2177	0.2442	0.2325	Ave		0.2286			0.1000	5.3		20.0			
Tetrachloroethene	0.3835 0.4036	0.3906 0.3911	0.3736	0.4049	0.4078	Ave		0.3936			0.1500	3.2		20.0			
1,3-Dichloropropane	0.3550 0.3642	0.3730 0.3393	0.3481	0.3915	0.3614	Ave		0.3618				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.0833 0.0923	0.0710 0.0868	0.0797	0.0964	0.0908	Ave		0.0858			0.0500	10.0		20.0			
Chlorodibromomethane	0.2291 0.2937	0.2599 0.2767	0.2589	0.2892	0.2913	Ave		0.2713				8.7		20.0			
1,2-Dibromoethane	0.2112 0.2386	0.2194 0.2221	0.2217	0.2482	0.2395	Ave		0.2287				5.9		20.0			
Chlorobenzene	0.9316 0.9528	0.9931 0.9041	0.9171	1.0145	0.9561	Ave		0.9528			0.3000	4.2		20.0			
1,1,1,2-Tetrachloroethane	0.2742 0.3418	0.2846 0.3170	0.3033	0.3344	0.3392	Ave		0.3135				8.6		20.0			
Ethylbenzene	0.4461 0.5415	0.4944 0.5349	0.4972	0.5671	0.5515	Ave		0.5190				8.1		20.0			
m-Xylene & p-Xylene	0.6250 0.6704	0.5921 0.6574	0.6228	0.6995	0.6711	Ave		0.6483				5.7		20.0			
o-Xylene	0.5164 0.6405	0.5658 0.6283	0.5918	0.6784	0.6489	Ave		0.6100				9.1		20.0			
Styrene	0.8959 1.0808	0.9567 1.0388	0.9686	1.1116	1.0714	Ave		1.0177			0.3000	7.7		20.0			
Bromoform	+++++ 0.1717	0.1013 0.1660	0.1374	0.1610	0.1671	Ave		0.1508			0.1000	18.0		20.0			
Isopropylbenzene	1.4026 1.6689	1.5331 1.6441	1.5405	1.7916	1.7351	Ave		1.6166			0.1000	8.2		20.0			
1,1,2,2-Tetrachloroethane	0.4510 0.4679	0.4921 0.4182	0.4510	0.5033	0.4643	Ave		0.4640			0.3000	6.1		20.0			
Bromobenzene	0.8220 0.7790	0.6936 0.6976	0.7398	0.7891	0.7470	Ave		0.7526				6.3		20.0			
1,2,3-Trichloropropane	0.1365 0.1898	0.2071 0.1694	0.1765	0.2029	0.1812	Ave		0.1805				13.1		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1003	0.1018 0.0933	0.0942	0.0983	0.0965	Ave		0.0974				3.5		20.0			
N-Propylbenzene	0.7559 0.9036	0.7907 0.8728	0.8849	0.9698	0.8801	Ave		0.8654				8.2		20.0			
2-Chlorotoluene	0.6553 0.7696	0.6965 0.7107	0.7266	0.7938	0.7424	Ave		0.7278				6.4		20.0			
1,3,5-Trimethylbenzene	2.1402 2.4540	2.2357 2.3540	2.3696	2.6240	2.4217	Ave		2.3713				6.6		20.0			
4-Chlorotoluene	0.7781 0.7988	0.8002 0.7501	0.7608	0.8452	0.7872	Ave		0.7886				3.9		20.0			
tert-Butylbenzene	2.1213 2.3169	2.1621 2.2105	2.1954	2.4970	2.2820	Ave		2.2550				5.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.1871 2.5517	2.3678 2.3851	2.4395	2.7438	2.5078	Ave		2.4547				7.1		20.0			
sec-Butylbenzene	3.0210 3.2140	3.0889 3.1435	3.1030	3.5486	3.2712	Ave		3.1986				5.5		20.0			
1,3-Dichlorobenzene	1.7067 1.5433	1.6155 1.4288	1.4815	1.5994	1.5054	Ave		1.5544			0.6000	6.0		20.0			
4-Isopropyltoluene	2.3894 2.9292	2.6004 2.8395	2.7589	3.0936	2.8701	Ave		2.7830				8.3		20.0			
1,4-Dichlorobenzene	1.9285 1.5890	1.8360 1.4641	1.5219	1.6457	1.5539	Ave		1.6484			0.5000	10.4		20.0			
n-Butylbenzene	2.1166 2.2954	2.0793 2.2898	2.1936	2.4756	2.2820	Ave		2.2475				5.9		20.0			
1,2-Dichlorobenzene	1.5506 1.4417	1.5261 1.3178	1.3592	1.4777	1.3970	Ave		1.4386			0.4000	6.0		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1144	0.1000 0.1055	0.0985	0.1121	0.1063	Ave		0.1061			0.0500	5.9		20.0			
1,2,4-Trichlorobenzene	1.1208 0.9475	1.0543 0.8630	0.8883	0.9467	0.9152	Ave		0.9623			0.2000	9.6		20.0			
Hexachlorobutadiene	0.4063 0.3705	0.3997 0.3820	0.3594	0.3650	0.3710	Ave		0.3791				4.7		20.0			
Naphthalene	1.8629 1.9114	1.7828 1.7105	1.7171	1.9493	1.8552	Ave		1.8270				5.1		20.0			
1,2,3-Trichlorobenzene	0.9052 0.8326	0.9648 0.7540	0.7892	0.8390	0.7902	Ave		0.8393				8.7		20.0			
Dibromofluoromethane (Surr)	0.2469 0.2374	0.2402 0.2283	0.2325	0.2700	0.2488	Ave		0.2434				5.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2215 0.1999	0.2136 0.1900	0.1963	0.2384	0.2058	Ave		0.2094				7.9		20.0			
Toluene-d8 (Surr)	1.2105 1.1908	1.2625 1.1194	1.1322	1.3567	1.2038	Ave		1.2108				6.7		20.0			
4-Bromofluorobenzene (Surr)	0.5854 0.4297	0.4741 0.4086	0.4131	0.4567	0.4391	Ave		0.4581				13.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-330161/15	U1264198b.D
Level 2	STD8260 240-330161/14	U1264197.D
Level 3	STD8260 240-330161/13	U1264196.D
Level 4	ICIS 240-330161/4	U1264191.D
Level 5	STD8260 240-330161/11	U1264195.D
Level 6	STD8260 240-330161/10	U1264194.D
Level 7	STD8260 240-330161/9	U1264193.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	10051 1258224	26303 1734044	305543	532025	971704	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloromethane	FB	Ave	9295 723579	18150 1061689	192476	336549	554342	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl chloride	FB	Ave	10040 867492	21090 1248518	214918	390158	660506	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Butadiene	FB	Ave	9667 808418	16940 1123704	197986	340379	596265	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromomethane	FB	Ave	9262 887916	19889 1541784	199891	390670	636803	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Chloroethane	FB	Ave	6365 611138	13800 954688	144418	274725	455501	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dichlorofluoromethane	FB	Ave	16710 1336831	32780 2019951	324277	621113	999512	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Trichlorofluoromethane	FB	Ave	17481 1714959	35313 2473453	409494	761263	1301534	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl ether	FB	Ave	5209 469262	11539 688234	114470	218003	350765	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acrolein	FB	Ave	4855 366817	8493 513394	89784	173318	265005	2.50 200	5.00 300	50.0	100	150
1,1-Dichloroethene	FB	Ave	12261 975809	23049 1523676	236453	470283	766130	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	8923 891405	21551 1418442	220859	420622	699481	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Acetone	FB	Lin1	+++++ 198155	11356 284812	51912	94772	146215	+++++ 80.0	2.00 120	20.0	40.0	60.0
Iodomethane	FB	Ave	15905 1430687	33717 2107085	344021	629748	1073717	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon disulfide	FB	Ave	35118 2207259	69739 3385747	561169	1034582	1710915	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	8243 712719	18136 1077457	177339	335983	533648	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl acetate	FB	Ave	6758 510962	14060 768579	132620	245121	382521	1.00 80.0	2.00 120	20.0	40.0	60.0
Methylene Chloride	FB	Ave	+++++ 695454	20185 1012936	185764	326298	526977	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butyl alcohol	FB	Ave	5520 542037	12460 778196	130818	243220	397070	5.00 400	10.0 600	100	200	300
Acrylonitrile	FB	Ave	17109 1353324	31603 1963344	322436	613735	988274	5.00 400	10.0 600	100	200	300
trans-1,2-Dichloroethene	FB	Ave	11745 877116	24110 1348441	219943	416867	669441	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methyl tert-butyl ether	FB	Ave	19646 1923484	42996 2767292	478047	896100	1427429	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexane	FB	Ave	9071 874389	20603 1423237	216923	438287	686952	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloroethane	FB	Ave	10428 1025240	23681 1572378	248381	480559	771674	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Vinyl acetate	FB	Ave	5334 513554	13597 755628	127301	245436	385813	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2,2-Dichloropropane	FB	Ave	12159 1130528	27102 1746347	272672	535175	860041	0.500 40.0	1.00 60.0	10.0	20.0	30.0
cis-1,2-Dichloroethene	FB	Ave	11414 898011	23012 1344341	220315	402199	671507	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Butanone (MEK)	FB	Ave	1049 115886	2871 174630	29199	52279	88864	1.00 80.0	2.00 120	20.0	40.0	60.0
Bromochloromethane	FB	Ave	5957 392974	13626 572832	99670	184934	287140	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrahydrofuran	FB	Ave	1981 178799	4876 269045	41478	83945	136978	1.00 80.0	2.00 120	20.0	40.0	60.0
Chloroform	FB	Ave	14823 1274205	30705 1929230	322300	602752	955264	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1-Trichloroethane	FB	Ave	13690 1321552	28599 2069264	324880	627299	1013604	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Cyclohexane	FB	Ave	12960 1319498	30343 2046916	332830	632217	1032474	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1-Dichloropropene	FB	Ave	11274 1007038	24624 1577309	246839	488736	785763	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Carbon tetrachloride	FB	Ave	10705 1181775	24518 1861178	279086	548922	927655	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Isobutyl alcohol	FB	Ave	+++++ 273785	6279 404695	59080	111974	201632	+++++ 1000	25.0 1500	250	500	750

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	31379 2876854	71261 4372221	717657	1380121	2151605	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane	FB	Ave	10108 752998	18165 1125475	195614	373675	565462	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Heptane	FB	Lin1	+++++ 529563	52986 829947	157122	274798	414448	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Trichloroethene	FB	Ave	10518 971035	23031 1492477	237393	454682	741647	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Methylcyclohexane	FB	Ave	15631 1500346	32713 2362676	362425	723700	1181164	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloropropane	FB	Ave	6542 552005	13222 841114	139914	268354	412067	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromomethane	FB	Ave	5095 482223	12561 703329	113980	215667	357278	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,4-Dioxane	FB	Ave	+++++ 97798	2433 146871	24713	44469	73022	+++++ 800	20.0 1200	200	400	600
Bromodichloromethane	FB	Ave	10146 970429	21143 1463896	228555	461251	720359	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	5216 562482	12978 849654	123759	229965	393399	1.00 80.0	2.00 120	20.0	40.0	60.0
cis-1,3-Dichloropropene	FB	Ave	11444 1028069	24765 1547172	247621	471551	766680	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	7985 687704	14848 1010400	161462	314098	500081	1.00 80.0	2.00 120	20.0	40.0	60.0
Toluene	CBNZ d5	Ave	37218 3449937	78608 5295960	860873	1677676	2642462	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10239 909281	22045 1353223	218336	420649	669166	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethyl methacrylate	CBNZ d5	Ave	6637 729096	14985 1085084	167256	333568	538119	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6604 592469	15086 864889	147848	285746	448611	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Tetrachloroethene	CBNZ d5	Ave	11435 1040599	24320 1592455	253767	473841	786932	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichloropropane	CBNZ d5	Ave	10583 938979	23220 1381515	236435	458152	697267	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Hexanone	CBNZ d5	Ave	4969 475724	8840 706608	108346	225690	350546	1.00 80.0	2.00 120	20.0	40.0	60.0
Chlorodibromomethane	CBNZ d5	Ave	6831 757282	16184 1126424	175849	338467	562156	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromoethane	CBNZ d5	Ave	6297 615103	13659 904273	150578	290386	462079	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	27776 2456392	61832 3680886	622977	1187141	1844782	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	8176 881133	17716 1290679	206058	391307	654428	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Ethylbenzene	CBNZ d5	Ave	13300 1396006	30783 2177685	337751	663658	1064068	0.500 40.0	1.00 60.0	10.0	20.0	30.0
m-Xylene & p-Xylene	CBNZ d5	Ave	18635 1728384	36862 2676354	423085	818584	1294887	0.500 40.0	1.00 60.0	10.0	20.0	30.0
o-Xylene	CBNZ d5	Ave	15397 1651291	35229 2558019	402018	793873	1252185	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Styrene	CBNZ d5	Ave	26712 2786227	59565 4229495	657959	1300733	2067406	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromoform	CBNZ d5	Ave	+++++ 442618	6304 675838	93360	188447	322427	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
Isopropylbenzene	CBNZ d5	Ave	41820 4302460	95452 6693860	1046428	2096435	3347920	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	6910 682888	16265 1002913	163629	322960	520615	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Bromobenzene	DCBd 4	Ave	12593 1136919	22922 1672754	268384	506332	837614	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichloropropane	DCBd 4	Ave	2091 277053	6845 406234	64022	130166	203220	0.500 40.0	1.00 60.0	10.0	20.0	30.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 146430	3365 223652	34160	63092	108238	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
N-Propylbenzene	DCBd 4	Ave	11581 1318838	26134 2093013	321016	622267	986917	0.500 40.0	1.00 60.0	10.0	20.0	30.0
2-Chlorotoluene	DCBd 4	Ave	10039 1123218	23020 1704286	263583	509316	832565	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	32788 3581653	73891 5644652	859657	1683707	2715655	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Chlorotoluene	DCBd 4	Ave	11921 1165919	26445 1798572	275995	542346	882778	0.500 40.0	1.00 60.0	10.0	20.0	30.0
tert-Butylbenzene	DCBd 4	Ave	32498 3381504	71457 5300576	796457	1602195	2558933	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	33506 3724230	78255 5719401	884993	1760563	2812189	0.500 40.0	1.00 60.0	10.0	20.0	30.0
sec-Butylbenzene	DCBd 4	Ave	46281 4690793	102089 7537983	1125696	2276973	3668273	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,3-Dichlorobenzene	DCBd 4	Ave	26146 2252413	53393 3426035	537451	1026249	1688114	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Isopropyltoluene	DCBd 4	Ave	36605 4275207	85942 6808926	1000887	1985018	3218421	0.500 40.0	1.00 60.0	10.0	20.0	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	29544 2319211	60680 3510724	552130	1055990	1742502	0.500 40.0	1.00 60.0	10.0	20.0	30.0
n-Butylbenzene	DCBd 4	Ave	32426 3350133	68722 5490779	795806	1588463	2558998	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichlorobenzene	DCBd 4	Ave	23755 2104116	50439 3160079	493092	948159	1566525	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 166898	3306 252874	35751	71951	119179	+++++ 40.0	1.00 60.0	10.0	20.0	30.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	17171 1382935	34845 2069480	322247	607453	1026243	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Hexachlorobutadiene	DCBd 4	Ave	6225 540781	13210 915889	130371	234191	416084	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Naphthalene	DCBd 4	Ave	28540 2789721	58921 4101678	622927	1250789	2080333	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	13868 1215251	31886 1807999	286320	538343	886090	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	9220 784576	18965 1158288	195147	385162	596969	0.500 40.0	1.00 60.0	10.0	20.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	8271 660465	16863 964370	164761	340185	493802	0.500 40.0	1.00 60.0	10.0	20.0	30.0
Toluene-d8 (Surr)	CBNZ d5	Ave	36091 3069860	78604 4557446	769075	1587522	2322879	0.500 40.0	1.00 60.0	10.0	20.0	30.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	17453 1107672	29518 1663479	280612	534376	847287	0.500 40.0	1.00 60.0	10.0	20.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330161

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 17:54 Calibration End Date: 06/05/2018 20:44 Calibration ID: 45476

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-330161/15	U1264198b.D
Level 2	STD8260 240-330161/14	U1264197.D
Level 3	STD8260 240-330161/13	U1264196.D
Level 4	ICIS 240-330161/4	U1264191.D
Level 5	STD8260 240-330161/11	U1264195.D
Level 6	STD8260 240-330161/10	U1264194.D
Level 7	STD8260 240-330161/9	U1264193.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	+++++	-2.0						50				
n-Heptane	+++++	4.4						50				

Not applicable for environmental samples

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.3002	0.1000	0.0170	0.0200	-14.8	30.0
Chloromethane	Ave	0.2290	0.2159	0.1000	0.0189	0.0200	-5.7	30.0
Vinyl chloride	Ave	0.2642	0.2566	0.1000	0.0194	0.0200	-2.9	30.0
Butadiene	Ave	0.2375	0.2105		0.0177	0.0200	-11.4	30.0
Bromomethane	Ave	0.2643	0.2515	0.0500	0.0190	0.0200	-4.8	30.0
Chloroethane	Ave	0.1818	0.1854	0.0500	0.0204	0.0200	2.0	30.0
Dichlorofluoromethane	Ave	0.4148	0.4396		0.0212	0.0200	6.0	30.0
Trichlorofluoromethane	Ave	0.4980	0.5348	0.1000	0.0215	0.0200	7.4	30.0
Ethyl ether	Ave	0.1427	0.1591		0.0223	0.0200	11.5	30.0
Acrolein	Ave	0.0225	0.0123		0.0544	0.100	-45.6	50.0
1,1-Dichloroethene	Ave	0.3066	0.3256	0.1000	0.0212	0.0200	6.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2997	0.0500	0.0220	0.0200	9.8	30.0
Acetone	Lin1		0.0322	0.0100	0.0422	0.0400	5.4	50.0
Iodomethane	Ave	0.4286	0.4448		0.0208	0.0200	3.8	30.0
Carbon disulfide	Ave	0.7522	0.6971	0.1000	0.0185	0.0200	-7.3	30.0
3-Chloro-1-propene	Ave	0.2211	0.2258		0.0204	0.0200	2.1	30.0
Methyl acetate	Ave	0.0825	0.0797*	0.1000	0.0387	0.0400	-3.3	30.0
Methylene Chloride	Ave	0.2226	0.2325	0.1000	0.0209	0.0200	4.5	50.0
tert-Butyl alcohol	Ave	0.0159	0.0174		0.219	0.200	9.4	50.0
Acrylonitrile	Ave	0.0412	0.0428		0.208	0.200	3.9	30.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2932	0.1000	0.0207	0.0200	3.4	30.0
Methyl tert-butyl ether	Ave	0.5701	0.6185	0.1000	0.0217	0.0200	8.5	30.0
Hexane	Ave	0.2716	0.2799		0.0206	0.0200	3.1	30.0
1,1-Dichloroethane	Ave	0.3077	0.3332	0.2000	0.0217	0.0200	8.3	30.0
Vinyl acetate	Ave	0.1577	0.2089		0.0265	0.0200	32.5	50.0
2,2-Dichloropropane	Ave	0.3448	0.3643		0.0211	0.0200	5.7	30.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2822	0.1000	0.0202	0.0200	0.9	30.0
2-Butanone (MEK)	Ave	0.0173	0.0183	0.0100	0.0423	0.0400	5.8	30.0
Bromochloromethane	Ave	0.1331	0.1281		0.0192	0.0200	-3.8	30.0
Tetrahydrofuran	Ave	0.0277	0.0306		0.0442	0.0400	10.5	30.0
Chloroform	Ave	0.3937	0.4239	0.2000	0.0215	0.0200	7.6	30.0
1,1,1-Trichloroethane	Ave	0.3980	0.4226	0.1000	0.0212	0.0200	6.2	30.0
Cyclohexane	Ave	0.4006	0.4311	0.1000	0.0215	0.0200	7.6	30.0
1,1-Dichloropropene	Ave	0.3134	0.3283		0.0210	0.0200	4.8	30.0
Carbon tetrachloride	Ave	0.3465	0.3756	0.1000	0.0217	0.0200	8.4	30.0
Isobutyl alcohol	Ave	0.0032	0.0032		0.500	0.500	0.0	30.0
Benzene	Ave	0.8849	0.9319	0.5000	0.0211	0.0200	5.3	30.0
1,2-Dichloroethane	Ave	0.2402	0.2464	0.1000	0.0205	0.0200	2.6	30.0
n-Heptane	Lin1		0.1794		0.0200	0.0200	0.1	30.0
Trichloroethene	Ave	0.2960	0.3040	0.1500	0.0205	0.0200	2.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4757	0.1000	0.0209	0.0200	4.6	30.0
1,2-Dichloropropane	Ave	0.1717	0.1869	0.1000	0.0218	0.0200	8.8	30.0
Dibromomethane	Ave	0.1451	0.1458		0.0201	0.0200	0.5	30.0
1,4-Dioxane	Ave	0.0015	0.0015		0.392	0.400	-2.1	50.0
Bromodichloromethane	Ave	0.2882	0.3043	0.1500	0.0211	0.0200	5.6	30.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0794		0.0200	0.0200	-0.2	30.0
cis-1,3-Dichloropropene	Ave	0.3116	0.3287	0.1500	0.0211	0.0200	5.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.1104	0.0500	0.0432	0.0400	8.1	30.0
Toluene	Ave	1.317	1.395	0.4000	0.0212	0.0200	5.9	30.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3439	0.1000	0.0200	0.0200	-0.1	30.0
Ethyl methacrylate	Ave	0.2604	0.2724		0.0209	0.0200	4.6	30.0
1,1,2-Trichloroethane	Ave	0.2286	0.2487	0.1000	0.0218	0.0200	8.8	30.0
Tetrachloroethene	Ave	0.3936	0.3948	0.1500	0.0201	0.0200	0.3	30.0
1,3-Dichloropropane	Ave	0.3618	0.3734		0.0206	0.0200	3.2	30.0
2-Hexanone	Ave	0.0858	0.0951	0.0500	0.0443	0.0400	10.9	30.0
Chlorodibromomethane	Ave	0.2713	0.2948		0.0217	0.0200	8.7	30.0
1,2-Dibromoethane	Ave	0.2287	0.2459		0.0215	0.0200	7.6	30.0
Chlorobenzene	Ave	0.9528	0.9798	0.3000	0.0206	0.0200	2.8	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.3449		0.0220	0.0200	10.0	30.0
Ethylbenzene	Ave	0.5190	0.5469		0.0211	0.0200	5.4	30.0
m-Xylene & p-Xylene	Ave	0.6483	0.6837		0.0211	0.0200	5.5	30.0
o-Xylene	Ave	0.6100	0.6582		0.0216	0.0200	7.9	30.0
Styrene	Ave	1.018	1.079	0.3000	0.0212	0.0200	6.1	30.0
Bromoform	Ave	0.1508	0.1564	0.1000	0.0208	0.0200	3.8	30.0
Isopropylbenzene	Ave	1.617	1.749	0.1000	0.0216	0.0200	8.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.5023	0.3000	0.0216	0.0200	8.2	30.0
Bromobenzene	Ave	0.7526	0.7764		0.0206	0.0200	3.2	30.0
1,2,3-Trichloropropane	Ave	0.1805	0.2041		0.0226	0.0200	13.1	30.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1045		0.0214	0.0200	7.2	30.0
N-Propylbenzene	Ave	0.8654	0.9324		0.0215	0.0200	7.7	30.0
2-Chlorotoluene	Ave	0.7278	0.7749		0.0213	0.0200	6.5	30.0
1,3,5-Trimethylbenzene	Ave	2.371	2.607		0.0220	0.0200	9.9	30.0
4-Chlorotoluene	Ave	0.7886	0.8209		0.0208	0.0200	4.1	30.0
tert-Butylbenzene	Ave	2.255	2.456		0.0218	0.0200	8.9	30.0
1,2,4-Trimethylbenzene	Ave	2.455	2.685		0.0219	0.0200	9.4	30.0
sec-Butylbenzene	Ave	3.199	3.475		0.0217	0.0200	8.6	30.0
1,3-Dichlorobenzene	Ave	1.554	1.576	0.6000	0.0203	0.0200	1.4	30.0
4-Isopropyltoluene	Ave	2.783	3.049		0.0219	0.0200	9.6	30.0
1,4-Dichlorobenzene	Ave	1.648	1.637	0.5000	0.0199	0.0200	-0.7	30.0
n-Butylbenzene	Ave	2.247	2.391		0.0213	0.0200	6.4	30.0
1,2-Dichlorobenzene	Ave	1.439	1.505	0.4000	0.0209	0.0200	4.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330161/5 Calibration Date: 06/05/2018 18:17

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264192.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.1182	0.0500	0.0223	0.0200	11.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.9432	0.2000	0.0196	0.0200	-2.0	50.0
Hexachlorobutadiene	Ave	0.3791	0.3746		0.0198	0.0200	-1.2	30.0
Naphthalene	Ave	1.827	1.975		0.0216	0.0200	8.1	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.8562		0.0204	0.0200	2.0	30.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2603		0.0214	0.0200	6.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.2229		0.0213	0.0200	6.5	30.0
Toluene-d8 (Surr)	Ave	1.211	1.282		0.0212	0.0200	5.9	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4561		0.0199	0.0200	-0.4	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: BFB3864.D BFB Injection Date: 06/11/2018

Instrument ID: A3UX12 BFB Injection Time: 09:55

Analysis Batch No.: 330979

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.5	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	72.9	
175	5.0 - 9.0 % of mass 174	6.1	(8.3) 1
176	95.0 - 101.0 % of mass 174	70.3	(96.4) 1
177	5.0 - 9.0 % of mass 176	4.9	(7.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-330979/4	U1264341.D	06/11/2018	10:21
	CCVIS 240-330979/5	U1264342a.D	06/11/2018	10:44
	LCS 240-330979/6	U1264343.D	06/11/2018	11:07
	MB 240-330979/9	U1264346.D	06/11/2018	12:17
TB-053118	240-96479-1	U1264354.D	06/11/2018	16:34
DMW-7I-053118	240-96479-2	U1264355.D	06/11/2018	16:57
DMW-7D-053118	240-96479-3	U1264356.D	06/11/2018	17:20
DMW-7S-053118	240-96479-4	U1264357a.D	06/11/2018	17:44
MSA-MW-5-053118	240-96479-5	U1264358.D	06/11/2018	18:07
MSA-MW-5-053118 MS	240-96479-5 MS	U1264365.D	06/11/2018	20:50
MSA-MW-5-053118 MSD	240-96479-5 MSD	U1264366.D	06/11/2018	21:13

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330979/4 Calibration Date: 06/11/2018 10:21

Instrument ID: A3UX12 Calib Start Date: 05/24/2018 16:09

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/24/2018 18:05

Lab File ID: U1264341.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0101		0.228	0.200	14.0	20.0
Diisopropyl ether	Ave	0.1725	0.1802		0.0209	0.0200	4.4	20.0
2-Chloro-1,3-butadiene	Ave	0.2384	0.2765		0.0232	0.0200	16.0	20.0
Ethyl tert-butyl ether	Ave	0.4651	0.4850		0.0209	0.0200	4.3	20.0
Ethyl acetate	Ave	0.0960	0.0880		0.0367	0.0400	-8.3	50.0
Propionitrile	Ave	0.0124	0.0128		0.205	0.200	2.7	20.0
Methacrylonitrile	Ave	0.0563	0.0521		0.185	0.200	-7.4	20.0
Tert-amyl methyl ether	Ave	0.5745	0.5631		0.0196	0.0200	-2.0	20.0
n-Butanol	Lin1		0.0022		0.536	0.500	7.1	20.0
Ethyl acrylate	Ave	0.1538	0.1419		0.0185	0.0200	-7.7	20.0
Methyl methacrylate	Ave	0.0971	0.0865		0.0356	0.0400	-10.9	20.0
2-Nitropropane	Ave	0.0197	0.0165		0.0334	0.0400	-16.4	20.0
n-Butyl acetate	Ave	0.2314	0.2084		0.0180	0.0200	-10.0	20.0
1-Chlorohexane	Ave	0.4377	0.4586		0.0210	0.0200	4.8	20.0
Cyclohexanone	Ave	0.0032	0.0032		0.200	0.200	0.0	20.0
Pentachloroethane	Ave	0.2982	0.3500		0.0470	0.0400	17.4	20.0
1,2,3-Trimethylbenzene	Ave	2.371	2.627		0.0222	0.0200	10.8	20.0
Benzyl chloride	Ave	0.7976	0.8488		0.0213	0.0200	6.4	20.0
1,3,5-Trichlorobenzene	Ave	0.9357	0.9031		0.0193	0.0200	-3.5	20.0
2-Methylnaphthalene	Lin1		0.7780		0.0240	0.0400	-40.0*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.2812	0.1000	0.0160	0.0200	-20.2*	20.0
Chloromethane	Ave	0.2290	0.2343	0.1000	0.0205	0.0200	2.3	20.0
Vinyl chloride	Ave	0.2642	0.2629	0.1000	0.0199	0.0200	-0.5	20.0
Butadiene	Ave	0.2375	0.2294		0.0193	0.0200	-3.4	20.0
Bromomethane	Ave	0.2643	0.2460	0.0500	0.0186	0.0200	-6.9	20.0
Chloroethane	Ave	0.1818	0.1884	0.0500	0.0207	0.0200	3.6	20.0
Dichlorofluoromethane	Ave	0.4148	0.4249		0.0205	0.0200	2.4	20.0
Trichlorofluoromethane	Ave	0.4980	0.4502	0.1000	0.0181	0.0200	-9.6	20.0
Ethyl ether	Ave	0.1427	0.1512		0.0212	0.0200	6.0	20.0
Acrolein	Ave	0.0225	0.0231		0.103	0.100	2.6	50.0
1,1-Dichloroethene	Ave	0.3066	0.3185	0.1000	0.0208	0.0200	3.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2466	0.0500	0.0181	0.0200	-9.7	20.0
Acetone	Lin1		0.0330	0.0100	0.0433	0.0400	8.2	50.0
Iodomethane	Ave	0.4286	0.3781		0.0176	0.0200	-11.8	20.0
Carbon disulfide	Ave	0.7522	0.7017	0.1000	0.0187	0.0200	-6.7	20.0
3-Chloro-1-propene	Ave	0.2211	0.2326		0.0210	0.0200	5.2	20.0
Methyl acetate	Ave	0.0825	0.0809*	0.1000	0.0392	0.0400	-1.9	20.0
Methylene Chloride	Ave	0.2226	0.2362	0.1000	0.0212	0.0200	6.1	50.0
tert-Butyl alcohol	Ave	0.0159	0.0165		0.207	0.200	3.5	50.0
Acrylonitrile	Ave	0.0412	0.0438		0.213	0.200	6.3	20.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2855	0.1000	0.0201	0.0200	0.7	20.0
Methyl tert-butyl ether	Ave	0.5701	0.6024	0.1000	0.0211	0.0200	5.7	20.0
Hexane	Ave	0.2716	0.2695		0.0199	0.0200	-0.7	20.0
1,1-Dichloroethane	Ave	0.3077	0.3290	0.2000	0.0214	0.0200	6.9	20.0
Vinyl acetate	Ave	0.1577	0.2148		0.0272	0.0200	36.2	50.0
2,2-Dichloropropane	Ave	0.3448	0.3497		0.0203	0.0200	1.4	20.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2581	0.1000	0.0185	0.0200	-7.7	20.0
2-Butanone (MEK)	Ave	0.0173	0.0190	0.0100	0.0438	0.0400	9.5	20.0
Bromochloromethane	Ave	0.1331	0.1278		0.0192	0.0200	-4.0	20.0
Tetrahydrofuran	Ave	0.0277	0.0291		0.0421	0.0400	5.3	20.0
Chloroform	Ave	0.3937	0.3883	0.2000	0.0197	0.0200	-1.4	20.0
1,1,1-Trichloroethane	Ave	0.3980	0.3899	0.1000	0.0196	0.0200	-2.0	20.0
Cyclohexane	Ave	0.4006	0.3762	0.1000	0.0188	0.0200	-6.1	20.0
1,1-Dichloropropene	Ave	0.3134	0.3195		0.0204	0.0200	2.0	20.0
Carbon tetrachloride	Ave	0.3465	0.3281	0.1000	0.0189	0.0200	-5.3	20.0
Isobutyl alcohol	Ave	0.0032	0.0030		0.474	0.500	-5.1	20.0
Benzene	Ave	0.8849	0.9108	0.5000	0.0206	0.0200	2.9	20.0
1,2-Dichloroethane	Ave	0.2402	0.2467	0.1000	0.0205	0.0200	2.7	20.0
n-Heptane	Lin1		0.1685		0.0186	0.0200	-6.9	20.0
Trichloroethene	Ave	0.2960	0.2641	0.1500	0.0178	0.0200	-10.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4291	0.1000	0.0189	0.0200	-5.7	20.0
1,2-Dichloropropane	Ave	0.1717	0.1738	0.1000	0.0202	0.0200	1.2	20.0
Dibromomethane	Ave	0.1451	0.1194		0.0164	0.0200	-17.8	20.0
1,4-Dioxane	Ave	0.0015	0.0013		0.339	0.400	-15.2	50.0
Bromodichloromethane	Ave	0.2882	0.2938	0.1500	0.0204	0.0200	1.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0933		0.0469	0.0400	17.3	20.0
cis-1,3-Dichloropropene	Ave	0.3116	0.3111	0.1500	0.0200	0.0200	-0.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.1093	0.0500	0.0428	0.0400	7.0	20.0
Toluene	Ave	1.317	1.348	0.4000	0.0205	0.0200	2.4	20.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3409	0.1000	0.0198	0.0200	-1.0	20.0
Ethyl methacrylate	Ave	0.2604	0.2789		0.0214	0.0200	7.1	20.0
1,1,2-Trichloroethane	Ave	0.2286	0.2215	0.1000	0.0194	0.0200	-3.1	20.0
Tetrachloroethene	Ave	0.3936	0.3315	0.1500	0.0168	0.0200	-15.8	20.0
1,3-Dichloropropane	Ave	0.3618	0.3700		0.0205	0.0200	2.3	20.0
2-Hexanone	Ave	0.0858	0.0993	0.0500	0.0463	0.0400	15.7	20.0
Chlorodibromomethane	Ave	0.2713	0.2590		0.0191	0.0200	-4.5	20.0
1,2-Dibromoethane	Ave	0.2287	0.2258		0.0197	0.0200	-1.3	20.0
Chlorobenzene	Ave	0.9528	0.9029	0.3000	0.0190	0.0200	-5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.3080		0.0196	0.0200	-1.8	20.0
Ethylbenzene	Ave	0.5190	0.5158		0.0199	0.0200	-0.6	20.0
m-Xylene & p-Xylene	Ave	0.6483	0.6443		0.0199	0.0200	-0.6	20.0
o-Xylene	Ave	0.6100	0.6122		0.0201	0.0200	0.4	20.0
Styrene	Ave	1.018	1.026	0.3000	0.0202	0.0200	0.8	20.0
Bromoform	Ave	0.1508	0.1359	0.1000	0.0180	0.0200	-9.9	20.0
Isopropylbenzene	Ave	1.617	1.657	0.1000	0.0205	0.0200	2.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.4923	0.3000	0.0212	0.0200	6.1	20.0
Bromobenzene	Ave	0.7526	0.6703		0.0178	0.0200	-10.9	20.0
1,2,3-Trichloropropane	Ave	0.1805	0.1887		0.0209	0.0200	4.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1081		0.0222	0.0200	10.9	20.0
N-Propylbenzene	Ave	0.8654	0.8488		0.0196	0.0200	-1.9	20.0
2-Chlorotoluene	Ave	0.7278	0.7098		0.0195	0.0200	-2.5	20.0
1,3,5-Trimethylbenzene	Ave	2.371	2.444		0.0206	0.0200	3.1	20.0
4-Chlorotoluene	Ave	0.7886	0.7451		0.0189	0.0200	-5.5	20.0
tert-Butylbenzene	Ave	2.255	2.200		0.0195	0.0200	-2.4	20.0
1,2,4-Trimethylbenzene	Ave	2.455	2.539		0.0207	0.0200	3.4	20.0
sec-Butylbenzene	Ave	3.199	3.244		0.0203	0.0200	1.4	20.0
1,3-Dichlorobenzene	Ave	1.554	1.399	0.6000	0.0180	0.0200	-10.0	20.0
4-Isopropyltoluene	Ave	2.783	2.825		0.0203	0.0200	1.5	20.0
1,4-Dichlorobenzene	Ave	1.648	1.445	0.5000	0.0175	0.0200	-12.4	20.0
n-Butylbenzene	Ave	2.247	2.305		0.0205	0.0200	2.6	20.0
1,2-Dichlorobenzene	Ave	1.439	1.303	0.4000	0.0181	0.0200	-9.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.0959	0.0500	0.0181	0.0200	-9.7	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.7725	0.2000	0.0161	0.0200	-19.7	50.0
Hexachlorobutadiene	Ave	0.3791	0.2775		0.0146	0.0200	-26.8*	20.0
Naphthalene	Ave	1.827	1.723		0.0189	0.0200	-5.7	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.6725		0.0160	0.0200	-19.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2489		0.0204	0.0200	2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.2381		0.0227	0.0200	13.7	20.0
Toluene-d8 (Surr)	Ave	1.211	1.304		0.0215	0.0200	7.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4876		0.0213	0.0200	6.4	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: ICIS 240-328331/13 Date Analyzed: 05/24/2018 13:14

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1263876a.D Heated Purge: (Y/N) N

Calibration ID: 45345

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1466112	5.10	1184093	7.76	666320	9.97
UPPER LIMIT		2932224	5.60	2368186	8.26	1332640	10.47
LOWER LIMIT		733056	4.60	592047	7.26	333160	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-328331/26		1501263	5.10	1169376	7.76	574191	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: ICIS 240-330161/4 Date Analyzed: 06/05/2018 17:54

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264191.D Heated Purge: (Y/N) N

Calibration ID: 45476

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1426703	5.10	1170169	7.76	641653	9.97
UPPER LIMIT		2853406	5.60	2340338	8.26	1283306	10.47
LOWER LIMIT		713352	4.60	585085	7.26	320827	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330161/5		1478009	5.10	1193794	7.76	657647	9.97
CCVIS 240-330979/5		1270407	5.10	1012695	7.76	565331	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: CCVIS 240-330979/5 Date Analyzed: 06/11/2018 10:44

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1264342a.D Heated Purge: (Y/N) N

Calibration ID: 45476

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1270407	5.10	1012695	7.76	565331	9.97
UPPER LIMIT		2540814	5.60	2025390	8.26	1130662	10.47
LOWER LIMIT		635204	4.60	506348	7.26	282666	9.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-330979/4		1199475	5.10	951224	7.76	448605	9.97
LCS 240-330979/6		1226528	5.10	954342	7.76	524556	9.97
MB 240-330979/9		1064409	5.10	829258	7.76	391880	9.97
240-96479-1	TB-053118	1184373	5.10	936555	7.76	451851	9.97
240-96479-2	DMW-7I-053118	1141510	5.10	886365	7.76	428225	9.97
240-96479-3	DMW-7D-053118	1154656	5.10	906018	7.76	442668	9.97
240-96479-4	DMW-7S-053118	1105692	5.10	834730	7.76	391363	9.97
240-96479-5	MSA-MW-5-053118	1131784	5.10	880585	7.76	426392	9.97
240-96479-5 MS	MSA-MW-5-053118 MS	1194153	5.10	937982	7.76	522164	9.97
240-96479-5 MSD	MSA-MW-5-053118 MSD	1188099	5.10	899214	7.76	484887	9.97

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

VOC

Initial Calibration 5/24/2018

Analyte: Trichloroethene

IS AREA	COMPOUND OF INTEREST AREA	IS AMOUNT PPB	COMPOUND AMOUNT PPB	RRF
1267892	8790	20	0.5	0.2773
1335878	15949	20	1	0.2388
1378125	185998	20	10	0.2699
1466112	391958	20	20	0.2673
1596000	610011	20	30	0.2548
1607310	860920	20	40	0.2678
1747396	1338647	20	60	0.2554
			AVERAGE RRF	0.2616
			%RSD	4.9189

CCV RRF ON 06/11/18 @ 10:44

IS AREA	ICAL RRF (06/05/18)	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	COMPOUND AMOUNT PPB	RRF
1270407	0.296	335530	20	20	0.2641

% DIFFERENCE CCV

10.77290213

Sample	DMW-7S-053118	
COMPOUND	Trichloroethene	
COMPOUND AREA	43786	
INTERNAL STANDARD AMOUNT (ng)	20	
INTERNAL STANDARD AREA	1105692	
AVERAGE RRF	0.296	
DILUTION FACTOR	333.33	
43786 x 20 / 1105692 x 0.296	2.68	ng/ul
	891.90	ug/L

LCS %R		SPIKE AMOUNT	LCS CONCENTRATION	
94.00	Trichloroethene	20	18.80	
MS %R		**SPIKE AMOUNT**	**MS CONCENTRATION**	**SAMPLE CONCENTRATION**
87.60		2500	2190.00	13 U
MS/MSD RPD			**MSD CONCENTRATION**	
5.33			2310	

SURROGATE %R	Dibromofluoromethane	AMOUNT SURROGATE (PPB)	20.00	**%R =**	101.8	Sample DMW-7S-053118
IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Volume Purged (ML)	AVE RRF	CONCENTRATION PPB
1105692	333.33	280295	20	5	0.2489	20.37

TUNE % ABDUNDANCE	RAW ABUNDANCE m/z 95	RAW ABUNDANCE m/z 50	TUNE ON 06/05/18@17:08
14.96	308544	46160	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 328331

SDG No.:

Instrument ID: A3UX12 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2018 12:04 Calibration End Date: 05/24/2018 14:24 Calibration ID: 45345

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2662 0.3269	0.2488 0.3244	0.3003	0.3102	0.3070	Ave		0.2977			0.1000	9.9		20.0			
Isobutyl alcohol	0.0029 0.0027	0.0033 0.0026	0.0027	0.0027	0.0028	Ave		0.0028				8.3		20.0			
Benzene	0.8220 0.8347	0.8632 0.8053	0.8648	0.8617	0.8164	Ave		0.8383			0.5000	3.0		20.0			
1,2-Dichloroethane	0.2781 0.2490	0.2459 0.2375	0.2674	0.2543	0.2422	Ave		0.2535			0.1000	5.7		20.0			
n-Heptane	+++++ 0.1461	0.7106 0.1358	0.1626	0.1663	0.1391	Lin1	0.5718	0.1267				11.1			0.9960		0.9900
Trichloroethene	0.2773 0.2678	0.2388 0.2554	0.2699	0.2673	0.2548	Ave		0.2616			0.1500	4.9		20.0			
Methylcyclohexane	0.3305 0.4054	0.2970 0.4008	0.3354	0.4164	0.3766	Ave		0.3660			0.1000	12.4		20.0			
1,2-Dichloropropane	0.1712 0.1672	0.1493 0.1616	0.1772	0.1756	0.1655	Ave		0.1668			0.1000	5.7		20.0			
Dibromomethane	0.1515 0.1343	0.1266 0.1299	0.1422	0.1375	0.1292	Ave		0.1359				6.4		20.0			
1,4-Dioxane	+++++ 0.0009	0.0006 0.0009	0.0009	0.0010	0.0009	Ave		0.0009				13.1		20.0			
Dichlorobromomethane	0.2416 0.2938	0.2446 0.2857	0.2836	0.2940	0.2801	Ave		0.2748			0.1500	8.1		20.0			
2-Chloroethyl vinyl ether	0.0806 0.0946	0.0897 0.0919	0.1013	0.0967	0.0908	Ave		0.0922				7.0		20.0			
cis-1,3-Dichloropropene	0.3014 0.3094	0.2730 0.3008	0.3091	0.3181	0.2975	Ave		0.3013			0.1500	4.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.1140 0.1171	0.1013 0.1094	0.1240	0.1197	0.1134	Ave		0.1141			0.0500	6.4		20.0			
Toluene	1.3467 1.3118	1.1191 1.2374	1.3358	1.3489	1.2626	Ave		1.2803			0.4000	6.5		20.0			
trans-1,3-Dichloropropene	0.3185 0.3610	0.3260 0.3476	0.3434	0.3500	0.3436	Ave		0.3414			0.1000	4.3		20.0			
Ethyl methacrylate	0.2428 0.2914	0.1957 0.2820	0.2901	0.2943	0.2828	Ave		0.2684				13.6		20.0			
1,1,2-Trichloroethane	0.2852 0.2262	0.2091 0.2131	0.2311	0.2343	0.2150	Ave		0.2306			0.1000	11.2		20.0			
Tetrachloroethene	0.3640 0.3537	0.3678 0.3338	0.3594	0.3555	0.3378	Ave		0.3532			0.1500	3.6		20.0			
1,3-Dichloropropane	0.3663 0.3709	0.3736 0.3436	0.3924	0.3874	0.3539	Ave		0.3697				4.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263873.D
Lims ID: std8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-May-2018 12:04:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-010
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:48:45 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 14:49:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1267892	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	84	1002801	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.971	9.970	0.001	96	513981	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111		4.527				ND	ND	U
$ 5 1,2-Dichloroethane-d4 (Sur	65		4.811				ND	ND	U
$ 6 Toluene-d8 (Surr)	98		6.456				ND	ND	U
$ 7 4-Bromofluorobenzene (Surr	95		8.858				ND	ND	U
9 Dichlorodifluoromethane	85		1.392				ND	ND	U
10 Chloromethane	50	1.498	1.510	-0.012	42	6573	0.5000	0.5448	
11 Vinyl chloride	62	1.593	1.593	0.000	85	7466	0.5000	0.5304	
12 Butadiene	54	1.605	1.616	-0.011	82	6149	0.5000	0.5196	
13 Bromomethane	94	1.877	1.865	0.012	84	7989	0.5000	0.5271	
14 Chloroethane	64		1.960				ND	ND	U
15 Dichlorofluoromethane	67	2.125	2.125	0.000	92	12704	0.5000	0.5184	
16 Trichlorofluoromethane	101	2.173	2.161	0.012	92	10676	0.5000	0.4322	
17 Ethyl ether	59	2.421	2.421	0.000	81	4731	0.5000	0.5402	
18 Acrolein	56		2.539				ND	ND	
21 1,1-Dichloroethene	61	2.622	2.610	0.012	94	7762	0.5000	0.4498	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	63	5177	0.5000	0.4292	
22 Acetone	43	2.670	2.670	0.000	82	8636	1.00	0.9225	
23 Iodomethane	142	2.753	2.752	0.000	99	10240	0.5000	0.4843	
24 Carbon disulfide	76	2.812	2.800	0.012	99	20586	0.5000	0.5610	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	73	7845	0.5000	0.5869	
27 Methyl acetate	43		2.954				ND	ND	U
28 Methylene Chloride	49	3.036	3.048	-0.012	82	13884	0.5000	0.4554	
29 2-Methyl-2-propanol	59	3.167	3.155	0.012	41	5405	5.00	6.12	
30 Acrylonitrile	53	3.261	3.261	0.000	97	13224	5.00	5.32	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	77	7894	0.5000	0.5074	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	17327	0.5000	0.4993	
33 Hexane	57	3.498	3.498	0.000	84	4572	0.5000	0.3945	
34 1,1-Dichloroethane	63	3.628	3.640	-0.012	95	8637	0.5000	0.4985	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.687	3.675	0.012	69	6494	0.5000	0.5979	
40 cis-1,2-Dichloroethene	96	4.137	4.125	0.012	84	6920	0.5000	0.4781	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	70	10542	0.5000	0.5333	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	71	1099	1.00	1.04	
45 Chlorobromomethane	49	4.326	4.326	0.000	75	3309	0.5000	0.4276	
46 Tetrahydrofuran	42	4.385	4.374	0.011	15	2811	1.00	1.40	
47 Chloroform	83	4.397	4.397	0.000	90	10896	0.5000	0.4854	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	90	11778	0.5000	0.5152	
49 Cyclohexane	84	4.587	4.587	0.001	78	7382	0.5000	0.3767	
51 Carbon tetrachloride	117	4.681	4.681	0.000	84	8439	0.5000	0.4472	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	90	9285	0.5000	0.5062	
52 Isobutyl alcohol	41	4.800	4.788	0.012	52	2281	12.5	12.7	
53 Benzene	78	4.859	4.859	0.000	96	26054	0.5000	0.4903	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	67	8815	0.5000	0.5485	
56 n-Heptane	57		5.072				ND	ND	
58 Trichloroethene	130	5.403	5.403	0.000	92	8790	0.5000	0.5300	
60 Methylcyclohexane	83	5.557	5.557	0.000	79	10475	0.5000	0.4515	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	81	5426	0.5000	0.5131	
63 Dibromomethane	174	5.711	5.699	0.012	92	4803	0.5000	0.5575	
64 1,4-Dioxane	88		5.711				ND	ND	
65 Dichlorobromomethane	83	5.829	5.829	0.000	94	7658	0.5000	0.4396	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	89	5108	1.00	0.8736	
68 cis-1,3-Dichloropropene	75	6.220	6.219	0.001	95	9555	0.5000	0.5002	
69 4-Methyl-2-pentanone (MIBK	43	6.362	6.350	0.012	88	7226	1.00	1.00	
70 Toluene	91	6.515	6.503	0.012	96	33763	0.5000	0.5259	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	90	7985	0.5000	0.4664	
72 Ethyl methacrylate	69	6.776	6.776	0.000	82	6087	0.5000	0.4522	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	86	7149	0.5000	0.6184	
75 Tetrachloroethene	166	6.989	7.000	-0.011	93	9126	0.5000	0.5154	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	90	9182	0.5000	0.4953	
77 2-Hexanone	43	7.095	7.095	0.000	57	5700	1.00	1.13	
79 Chlorodibromomethane	129	7.225	7.225	0.000	85	6083	0.5000	0.4800	
80 Ethylene Dibromide	107	7.332	7.332	0.000	97	5649	0.5000	0.4951	
82 Chlorobenzene	112	7.781	7.781	0.000	97	22642	0.5000	0.5128	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	89	5688	0.5000	0.3995	
84 Ethylbenzene	106	7.876	7.876	0.000	99	13451	0.5000	0.5294	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	97	13693	0.5000	0.4464	
86 o-Xylene	106	8.361	8.361	0.000	95	14191	0.5000	0.4791	
87 Styrene	104	8.373	8.373	0.000	92	20523	0.5000	0.4280	
88 Bromoform	173	8.551	8.551	0.000	4	2771	0.5000	0.4010	
89 Isopropylbenzene	105	8.704	8.704	0.000	93	34943	0.5000	0.4489	
92 Bromobenzene	156	9.000	9.000	0.000	76	9990	0.5000	0.5670	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	75	6482	0.5000	0.5052	
93 1,2,3-Trichloropropane	110	9.048	9.048	0.000	82	2842	0.5000	0.5659	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	64	1553	0.5000	0.5525	
95 N-Propylbenzene	120	9.095	9.107	-0.012	97	10035	0.5000	0.4786	
96 2-Chlorotoluene	126	9.190	9.190	0.000	96	7550	0.5000	0.4418	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	94	27866	0.5000	0.4650	
98 4-Chlorotoluene	126	9.296	9.296	0.000	97	7963	0.5000	0.4312	
99 tert-Butylbenzene	119	9.592	9.592	0.000	92	24147	0.5000	0.4402	
101 1,2,4-Trimethylbenzene	105	9.627	9.639	-0.012	96	27823	0.5000	0.4543	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	35641	0.5000	0.4499	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263874.D
Lims ID: std8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-May-2018 12:27:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-011
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:48:53 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 15:03:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1335878	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	84	1072535	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	96	537211	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	89	16295	1.00	1.06	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	95	18449	1.00	1.18	
$ 6 Toluene-d8 (Surr)	98	6.444	6.456	-0.012	93	63545	1.00	1.00	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	91	26861	1.00	1.10	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	37	10659	1.00	0.7383	
10 Chloromethane	50	1.498	1.510	-0.012	52	12534	1.00	0.9861	
11 Vinyl chloride	62	1.593	1.593	0.000	95	14233	1.00	0.9596	
12 Butadiene	54	1.616	1.616	0.000	93	10115	1.00	0.8113	
13 Bromomethane	94	1.865	1.865	0.000	91	15428	1.00	0.9661	
14 Chloroethane	64	1.948	1.960	-0.012	96	10167	1.00	0.9144	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	97	25683	1.00	0.99	
16 Trichlorofluoromethane	101	2.173	2.161	0.012	93	21847	1.00	0.8394	
17 Ethyl ether	59	2.409	2.421	-0.012	87	9649	1.00	1.05	
18 Acrolein	56	2.539	2.539	0.000	61	5789	5.00	5.43	
21 1,1-Dichloroethene	61	2.622	2.610	0.012	93	17367	1.00	0.9551	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	71	10512	1.00	0.8271	
22 Acetone	43	2.681	2.670	0.011	98	10906	2.00	1.85	
23 Iodomethane	142	2.752	2.752	0.000	99	21497	1.00	0.9649	
24 Carbon disulfide	76	2.812	2.800	0.012	100	36013	1.00	0.9314	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	80	14794	1.00	1.05	
27 Methyl acetate	43	2.965	2.954	0.011	91	11179	2.00	2.10	
28 Methylene Chloride	49	3.036	3.048	-0.012	81	21463	1.00	0.9808	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	97	10432	10.0	11.2	
30 Acrylonitrile	53	3.261	3.261	0.000	92	24514	10.0	9.35	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	80	15466	1.00	0.9435	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	94	36007	1.00	0.9848	
33 Hexane	57	3.498	3.498	0.000	88	9647	1.00	0.7900	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	16722	1.00	0.9161	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.687	3.675	0.012	94	9924	1.00	0.8672	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	74	21160	1.00	1.02	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	84	13888	1.00	0.9106	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	55	2039	2.00	1.84	
45 Chlorobromomethane	49	4.326	4.326	0.000	86	9357	1.00	1.15	
46 Tetrahydrofuran	42	4.362	4.374	-0.012	53	4434	2.00	2.09	
47 Chloroform	83	4.397	4.397	0.000	95	20868	1.00	0.8823	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	96	21445	1.00	0.8904	
49 Cyclohexane	84	4.586	4.587	0.000	80	17850	1.00	0.8644	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	89	17695	1.00	0.9155	
51 Carbon tetrachloride	117	4.681	4.681	0.000	90	16620	1.00	0.8358	
52 Isobutyl alcohol	41	4.788	4.788	0.000	41	5559	25.0	29.4	
53 Benzene	78	4.859	4.859	0.000	93	57658	1.00	1.03	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	96	16427	1.00	0.9702	
56 n-Heptane	57	5.083	5.072	0.011	76	47464	1.00	1.10	
58 Trichloroethene	130	5.403	5.403	0.000	92	15949	1.00	0.9127	
60 Methylcyclohexane	83	5.557	5.557	0.000	84	19836	1.00	0.8114	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	86	9973	1.00	0.8951	
63 Dibromomethane	174	5.711	5.699	0.012	89	8453	1.00	0.9312	
64 1,4-Dioxane	88	5.722	5.711	0.011	27	859	20.0	14.8	
65 Dichlorobromomethane	83	5.829	5.829	0.000	95	16340	1.00	0.8903	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	89	11983	2.00	1.95	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	94	18238	1.00	0.9061	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	90	13539	2.00	1.78	
70 Toluene	91	6.503	6.503	0.000	99	60013	1.00	0.8741	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	88	17482	1.00	0.9548	
72 Ethyl methacrylate	69	6.776	6.776	0.000	84	10497	1.00	0.7292	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	92	11216	1.00	0.9071	
75 Tetrachloroethene	166	7.000	7.000	0.000	93	19725	1.00	1.04	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	87	20035	1.00	1.01	
77 2-Hexanone	43	7.095	7.095	0.000	95	10122	2.00	1.87	
79 Chlorodibromomethane	129	7.225	7.225	0.000	82	11180	1.00	0.8248	
80 Ethylene Dibromide	107	7.332	7.332	0.000	98	11937	1.00	0.9781	
82 Chlorobenzene	112	7.781	7.781	0.000	98	47489	1.00	1.01	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	88	14524	1.00	0.9537	
84 Ethylbenzene	106	7.876	7.876	0.000	97	25247	1.00	0.9290	
85 m-Xylene & p-Xylene	106	7.982	7.983	-0.001	99	31386	1.00	0.9567	
86 o-Xylene	106	8.361	8.361	0.000	94	28079	1.00	0.8863	
87 Styrene	104	8.373	8.373	0.000	93	43221	1.00	0.8427	
88 Bromoform	173	8.550	8.551	-0.001	88	5633	1.00	0.7622	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	72849	1.00	0.8750	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	75	14014	1.00	1.04	
92 Bromobenzene	156	9.000	9.000	0.000	87	17706	1.00	0.9614	
93 1,2,3-Trichloropropane	110	9.047	9.048	-0.001	85	5335	1.00	1.02	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	68	2905	1.00	0.9888	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	20733	1.00	0.9460	
96 2-Chlorotoluene	126	9.189	9.190	-0.001	96	16993	1.00	0.9514	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	93	59018	1.00	0.9423	
98 4-Chlorotoluene	126	9.296	9.296	0.000	97	19313	1.00	1.00	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	57014	1.00	0.99	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	94	56731	1.00	0.8862	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	79687	1.00	0.9625	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263875.D
Lims ID: std8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-May-2018 12:51:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-012
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:49:01 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 15:05:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1378125	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	84	1135340	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	95	606968	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	91	157886	10.0	9.97	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	98	157765	10.0	9.81	
$ 6 Toluene-d8 (Surr)	98	6.444	6.456	-0.012	92	669298	10.0	9.95	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	90	256666	10.0	9.93	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	98	129504	10.0	8.70	
10 Chloromethane	50	1.498	1.510	-0.012	98	136250	10.0	10.4	
11 Vinyl chloride	62	1.593	1.593	0.000	99	156204	10.0	10.2	
12 Butadiene	54	1.605	1.616	-0.011	87	131327	10.0	10.2	
13 Bromomethane	94	1.865	1.865	0.000	91	162987	10.0	9.89	
14 Chloroethane	64	1.948	1.960	-0.012	99	122182	10.0	10.7	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	99	278895	10.0	10.5	
16 Trichlorofluoromethane	101	2.173	2.161	0.012	99	272303	10.0	10.1	
17 Ethyl ether	59	2.409	2.421	-0.012	84	100073	10.0	10.5	
18 Acrolein	56	2.539	2.539	0.000	99	57110	50.0	51.9	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	97	202037	10.0	10.8	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	94	121624	10.0	9.28	
22 Acetone	43	2.670	2.670	0.000	100	51152	20.0	21.8	
23 Iodomethane	142	2.752	2.752	0.000	99	246046	10.0	10.7	
24 Carbon disulfide	76	2.800	2.800	0.000	100	406574	10.0	10.2	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	79	148046	10.0	10.2	
27 Methyl acetate	43	2.954	2.954	0.000	94	117215	20.0	21.4	
28 Methylene Chloride	49	3.036	3.048	-0.012	86	156249	10.0	11.0	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	96856	100.0	100.8	
30 Acrylonitrile	53	3.261	3.261	0.000	97	285524	100.0	105.6	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	90	174318	10.0	10.3	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	93	395602	10.0	10.5	
33 Hexane	57	3.498	3.498	0.000	89	114071	10.0	9.06	
34 1,1-Dichloroethane	63	3.628	3.640	-0.012	97	192994	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	98	116069	10.0	9.83	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	84	162638	10.0	10.3	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	78	214490	10.0	9.98	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	96	22285	20.0	19.5	
45 Chlorobromomethane	49	4.326	4.326	0.000	83	92218	10.0	11.0	
46 Tetrahydrofuran	42	4.373	4.374	-0.001	89	45365	20.0	20.7	
47 Chloroform	83	4.397	4.397	0.000	96	257197	10.0	10.5	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	97	253811	10.0	10.2	
49 Cyclohexane	84	4.586	4.587	0.000	80	207704	10.0	9.75	
51 Carbon tetrachloride	117	4.681	4.681	0.000	90	206908	10.0	10.1	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	94	203081	10.0	10.2	
52 Isobutyl alcohol	41	4.788	4.788	0.000	90	46801	250.0	240.2	
53 Benzene	78	4.859	4.859	0.000	95	595916	10.0	10.3	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	98	184229	10.0	10.5	
56 n-Heptane	57	5.072	5.072	0.000	79	112066	10.0	8.33	
58 Trichloroethene	130	5.403	5.403	0.000	97	185998	10.0	10.3	
60 Methylcyclohexane	83	5.557	5.557	0.000	83	231084	10.0	9.16	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	90	122090	10.0	10.6	
63 Dibromomethane	174	5.699	5.699	0.000	94	98005	10.0	10.5	
64 1,4-Dioxane	88	5.711	5.711	0.000	28	12208	200.0	204.6	
65 Dichlorobromomethane	83	5.829	5.829	0.000	98	195430	10.0	10.3	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	92	139592	20.0	22.0	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	96	213023	10.0	10.3	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	90	170870	20.0	21.7	
70 Toluene	91	6.503	6.503	0.000	99	758286	10.0	10.4	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	90	194915	10.0	10.1	
72 Ethyl methacrylate	69	6.776	6.776	0.000	83	164680	10.0	10.8	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	92	131179	10.0	10.0	
75 Tetrachloroethene	166	7.000	7.000	0.000	98	204025	10.0	10.2	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	222736	10.0	10.6	
77 2-Hexanone	43	7.095	7.095	0.000	88	111241	20.0	19.5	
79 Chlorodibromomethane	129	7.225	7.225	0.000	88	145413	10.0	10.1	
80 Ethylene Dibromide	107	7.332	7.332	0.000	97	127659	10.0	9.88	
82 Chlorobenzene	112	7.781	7.781	0.000	97	515849	10.0	10.3	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	93	165922	10.0	10.3	
84 Ethylbenzene	106	7.876	7.876	0.000	97	292638	10.0	10.2	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	100	357074	10.0	10.3	
86 o-Xylene	106	8.361	8.361	0.000	96	347825	10.0	10.4	
87 Styrene	104	8.373	8.373	0.000	93	560106	10.0	10.3	
88 Bromoform	173	8.551	8.551	-0.001	92	75312	10.0	9.63	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	923332	10.0	10.5	
92 Bromobenzene	156	9.000	9.000	0.000	88	216825	10.0	10.4	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	75	162720	10.0	10.7	
93 1,2,3-Trichloropropane	110	9.047	9.048	-0.001	84	60819	10.0	10.3	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	84	32370	10.0	9.75	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	260304	10.0	10.5	
96 2-Chlorotoluene	126	9.189	9.190	-0.001	97	216589	10.0	10.7	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	94	760465	10.0	10.7	
98 4-Chlorotoluene	126	9.296	9.296	0.000	96	239483	10.0	11.0	
99 tert-Butylbenzene	119	9.592	9.592	0.000	91	690332	10.0	10.7	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	96	777610	10.0	10.8	
102 sec-Butylbenzene	105	9.805	9.805	0.000	94	990023	10.0	10.6	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263876a.D
Lims ID: ICIS L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 24-May-2018 13:14:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-013
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:49:10 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 15:06:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1466112	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	83	1184093	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	94	666320	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	364266	20.0	21.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	98	365938	20.0	21.4	
$ 6 Toluene-d8 (Surr)	98	6.456	6.456	0.000	92	1557504	20.0	22.2	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	91	576212	20.0	21.4	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	100	307447	20.0	19.4	
10 Chloromethane	50	1.510	1.510	0.000	98	272132	20.0	19.5	
11 Vinyl chloride	62	1.593	1.593	0.000	100	320226	20.0	19.7	
12 Butadiene	54	1.616	1.616	0.000	87	274536	20.0	20.1	
13 Bromomethane	94	1.865	1.865	0.000	92	339913	20.0	19.4	
14 Chloroethane	64	1.960	1.960	0.000	99	248430	20.0	20.4	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	99	553280	20.0	19.5	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	99	583216	20.0	20.4	
17 Ethyl ether	59	2.421	2.421	0.000	84	201952	20.0	19.9	
18 Acrolein	56	2.539	2.539	0.000	99	111900	100.0	95.6	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	96	418960	20.0	21.0	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	97	315153	20.0	22.6	
22 Acetone	43	2.670	2.670	0.000	100	103989	40.0	45.1	
23 Iodomethane	142	2.752	2.752	0.000	99	498788	20.0	20.4	
24 Carbon disulfide	76	2.800	2.800	0.000	100	852996	20.0	20.1	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	76	302041	20.0	19.5	
27 Methyl acetate	43	2.954	2.954	0.000	95	236205	40.0	40.5	
28 Methylene Chloride	49	3.048	3.048	0.000	84	312803	20.0	21.2	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	194350	200.0	190.2	
30 Acrylonitrile	53	3.261	3.261	0.000	99	578925	200.0	201.2	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	93	372117	20.0	20.7	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	93	807630	20.0	20.1	
33 Hexane	57	3.498	3.498	0.000	88	317391	20.0	23.7	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	403240	20.0	20.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	97	251270	20.0	20.0	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	79	450555	20.0	19.7	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	82	348873	20.0	20.8	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	96	48377	40.0	39.7	
45 Chlorobromomethane	49	4.326	4.326	0.000	81	183091	20.0	20.5	
46 Tetrahydrofuran	42	4.374	4.374	0.000	77	85475	40.0	36.7	
47 Chloroform	83	4.397	4.397	0.000	96	532313	20.0	20.5	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	98	537246	20.0	20.3	
49 Cyclohexane	84	4.587	4.587	0.000	79	513648	20.0	22.7	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	93	442674	20.0	20.9	
51 Carbon tetrachloride	117	4.681	4.681	0.000	92	454802	20.0	20.8	
52 Isobutyl alcohol	41	4.788	4.788	0.000	90	99816	500.0	481.5	
53 Benzene	78	4.859	4.859	0.000	95	1263408	20.0	20.6	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	97	372901	20.0	20.1	
56 n-Heptane	57	5.072	5.072	0.000	75	243761	20.0	21.7	
58 Trichloroethene	130	5.403	5.403	0.000	96	391958	20.0	20.4	
60 Methylcyclohexane	83	5.557	5.557	0.000	82	610517	20.0	22.8	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	91	257442	20.0	21.1	
63 Dibromomethane	174	5.699	5.699	0.000	95	201657	20.0	20.2	
64 1,4-Dioxane	88	5.711	5.711	0.000	84	28340	400.0	446.4	
65 Dichlorobromomethane	83	5.829	5.829	0.000	98	430996	20.0	21.4	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	92	283678	40.0	42.0	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	96	466323	20.0	21.1	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	92	350895	40.0	41.9	
70 Toluene	91	6.503	6.503	0.000	99	1597185	20.0	21.1	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	90	414417	20.0	20.5	
72 Ethyl methacrylate	69	6.776	6.776	0.000	84	348434	20.0	21.9	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	92	277419	20.0	20.3	
75 Tetrachloroethene	166	7.000	7.000	0.000	97	420995	20.0	20.1	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	458728	20.0	21.0	
77 2-Hexanone	43	7.095	7.095	0.000	91	255113	40.0	42.8	
79 Chlorodibromomethane	129	7.225	7.225	0.000	88	305548	20.0	20.4	
80 Ethylene Dibromide	107	7.332	7.332	0.000	98	282834	20.0	21.0	
82 Chlorobenzene	112	7.781	7.781	0.000	97	1073289	20.0	20.6	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	94	359896	20.0	21.4	
84 Ethylbenzene	106	7.876	7.876	0.000	97	612293	20.0	20.4	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	100	780858	20.0	21.6	
86 o-Xylene	106	8.361	8.361	0.000	96	736984	20.0	21.1	
87 Styrene	104	8.373	8.373	0.000	94	1238894	20.0	21.9	
88 Bromoform	173	8.551	8.551	0.000	93	172781	20.0	21.2	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	1952636	20.0	21.2	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	76	342254	20.0	20.6	
92 Bromobenzene	156	9.000	9.000	0.000	87	455070	20.0	19.9	
93 1,2,3-Trichloropropane	110	9.048	9.048	0.000	83	135587	20.0	20.8	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	77	73667	20.0	20.2	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	564400	20.0	20.8	
96 2-Chlorotoluene	126	9.190	9.190	0.000	97	467282	20.0	21.1	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	96	1622449	20.0	20.9	
98 4-Chlorotoluene	126	9.296	9.296	0.000	99	501248	20.0	20.9	
99 tert-Butylbenzene	119	9.592	9.592	0.000	91	1509038	20.0	21.2	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	96	1718376	20.0	21.6	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	2185251	20.0	21.3	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263877.D
Lims ID: std8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-May-2018 13:37:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-014
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:49:17 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 15:07:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1596000	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	82	1291474	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	94	736423	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	526872	30.0	28.7	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	98	538919	30.0	28.9	
$ 6 Toluene-d8 (Surr)	98	6.456	6.456	0.000	92	2265712	30.0	29.6	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	91	845559	30.0	28.8	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	99	527839	30.0	30.6	
10 Chloromethane	50	1.510	1.510	0.000	99	441934	30.0	29.1	
11 Vinyl chloride	62	1.593	1.593	0.000	99	515473	30.0	29.1	
12 Butadiene	54	1.616	1.616	0.000	87	446820	30.0	30.0	
13 Bromomethane	94	1.865	1.865	0.000	92	558324	30.0	29.3	
14 Chloroethane	64	1.960	1.960	0.000	99	399560	30.0	30.1	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	99	896806	30.0	29.1	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	98	962155	30.0	30.9	
17 Ethyl ether	59	2.421	2.421	0.000	84	307128	30.0	27.9	
18 Acrolein	56	2.539	2.539	0.000	98	185343	150.0	145.4	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	97	648405	30.0	29.8	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	98	459532	30.0	30.3	
22 Acetone	43	2.670	2.670	0.000	100	141984	60.0	57.5	
23 Iodomethane	142	2.752	2.752	0.000	100	771044	30.0	29.0	
24 Carbon disulfide	76	2.800	2.800	0.000	100	1321243	30.0	28.6	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	76	453905	30.0	27.0	
27 Methyl acetate	43	2.954	2.954	0.000	94	361615	60.0	57.0	
28 Methylene Chloride	49	3.036	3.048	-0.012	82	460479	30.0	29.0	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	290646	300.0	261.3	
30 Acrylonitrile	53	3.261	3.261	0.000	98	900156	300.0	287.4	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	91	570882	30.0	29.2	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	1268870	30.0	29.0	
33 Hexane	57	3.498	3.498	0.000	88	437966	30.0	30.0	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	646322	30.0	29.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	97	391830	30.0	28.7	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	82	548052	30.0	30.1	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	78	706156	30.0	28.4	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	95	82812	60.0	62.5	
45 Chlorobromomethane	49	4.326	4.326	0.000	82	273510	30.0	28.1	
46 Tetrahydrofuran	42	4.374	4.374	0.000	77	128248	60.0	50.6	
47 Chloroform	83	4.397	4.397	0.000	96	849391	30.0	30.1	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	97	848496	30.0	29.5	
49 Cyclohexane	84	4.587	4.587	0.000	80	759439	30.0	30.8	
51 Carbon tetrachloride	117	4.681	4.681	0.000	94	735068	30.0	30.9	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	93	682919	30.0	29.6	
52 Isobutyl alcohol	41	4.788	4.788	0.000	87	167628	750.0	742.8	
53 Benzene	78	4.859	4.859	0.000	95	1954561	30.0	29.2	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	98	579790	30.0	28.7	
56 n-Heptane	57	5.072	5.072	0.000	75	332888	30.0	28.4	
58 Trichloroethene	130	5.403	5.403	0.000	97	610011	30.0	29.2	
60 Methylcyclohexane	83	5.557	5.557	0.000	82	901520	30.0	30.9	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	88	396260	30.0	29.8	
63 Dibromomethane	174	5.699	5.699	0.000	95	309359	30.0	28.5	
64 1,4-Dioxane	88	5.711	5.711	0.000	85	43042	600.0	622.8	
65 Dichlorobromomethane	83	5.829	5.829	0.000	99	670514	30.0	30.6	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	92	434942	60.0	59.1	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	96	712122	30.0	29.6	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	91	542899	60.0	59.6	
70 Toluene	91	6.503	6.503	0.000	99	2445935	30.0	29.6	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	90	665678	30.0	30.2	
72 Ethyl methacrylate	69	6.776	6.776	0.000	84	547863	30.0	31.6	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	92	416554	30.0	28.0	
75 Tetrachloroethene	166	7.000	7.000	0.000	99	654320	30.0	28.7	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	685491	30.0	28.7	
77 2-Hexanone	43	7.095	7.095	0.000	89	373063	60.0	57.4	
79 Chlorodibromomethane	129	7.225	7.225	0.000	88	501614	30.0	30.7	
80 Ethylene Dibromide	107	7.332	7.332	0.000	99	437354	30.0	29.8	
82 Chlorobenzene	112	7.781	7.781	0.000	98	1630422	30.0	28.7	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	94	561051	30.0	30.6	
84 Ethylbenzene	106	7.876	7.876	0.000	97	952035	30.0	29.1	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	100	1185491	30.0	30.0	
86 o-Xylene	106	8.361	8.361	0.000	95	1148412	30.0	30.1	
87 Styrene	104	8.373	8.373	0.000	93	1920005	30.0	31.1	
88 Bromoform	173	8.551	8.551	0.000	93	289170	30.0	32.5	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	3118455	30.0	31.1	
92 Bromobenzene	156	9.000	9.000	0.000	86	721754	30.0	28.6	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	75	524399	30.0	28.5	
93 1,2,3-Trichloropropane	110	9.048	9.048	0.000	83	200642	30.0	27.9	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	79	120023	30.0	29.8	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	904727	30.0	30.1	
96 2-Chlorotoluene	126	9.190	9.190	0.000	98	743492	30.0	30.4	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	95	2633651	30.0	30.7	
98 4-Chlorotoluene	126	9.296	9.296	0.000	99	792316	30.0	29.9	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	2367105	30.0	30.1	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	95	2732590	30.0	31.1	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	3492121	30.0	30.8	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263878.D
Lims ID: std8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-May-2018 14:01:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-015
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:49:25 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 15:09:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1607310	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	82	1289861	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.971	9.970	0.001	92	753961	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	712237	40.0	38.6	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	98	695647	40.0	37.1	
$ 6 Toluene-d8 (Surr)	98	6.456	6.456	0.000	92	3011915	40.0	39.4	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	92	1142168	40.0	38.9	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	99	836716	40.0	48.2	
10 Chloromethane	50	1.510	1.510	0.000	98	606767	40.0	39.7	
11 Vinyl chloride	62	1.605	1.593	0.012	100	724175	40.0	40.6	
12 Butadiene	54	1.616	1.616	0.000	87	641049	40.0	42.7	
13 Bromomethane	94	1.865	1.865	0.000	91	786266	40.0	40.9	
14 Chloroethane	64	1.960	1.960	0.000	98	536782	40.0	40.1	
15 Dichlorofluoromethane	67	2.137	2.125	0.012	99	1252708	40.0	40.3	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	99	1393219	40.0	44.5	
17 Ethyl ether	59	2.421	2.421	0.000	84	431146	40.0	38.8	
18 Acrolein	56	2.539	2.539	0.000	98	255151	200.0	198.7	
21 1,1-Dichloroethene	61	2.622	2.610	0.012	94	897045	40.0	41.0	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	95	685245	40.0	44.8	
22 Acetone	43	2.670	2.670	0.000	100	200513	80.0	82.2	
23 Iodomethane	142	2.752	2.752	0.000	100	1092137	40.0	40.7	
24 Carbon disulfide	76	2.800	2.800	0.000	100	1848049	40.0	39.7	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	77	641173	40.0	37.8	
27 Methyl acetate	43	2.954	2.954	0.000	94	497671	80.0	77.9	
28 Methylene Chloride	49	3.048	3.048	0.000	81	640679	40.0	40.3	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	413396	400.0	369.0	
30 Acrylonitrile	53	3.261	3.261	0.000	100	1265136	400.0	401.1	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	91	792117	40.0	40.2	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	1760853	40.0	40.0	
33 Hexane	57	3.498	3.498	0.000	87	682811	40.0	46.5	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	918050	40.0	41.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	97	550377	40.0	40.0	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	77	1000311	40.0	39.9	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	83	765388	40.0	41.7	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	95	107946	80.0	80.9	
45 Chlorobromomethane	49	4.326	4.326	0.000	81	387997	40.0	39.6	
46 Tetrahydrofuran	42	4.374	4.374	0.000	78	185117	80.0	72.5	
47 Chloroform	83	4.397	4.397	0.000	95	1192612	40.0	41.9	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	97	1201100	40.0	41.4	
49 Cyclohexane	84	4.587	4.587	0.001	79	1121309	40.0	45.1	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	93	955093	40.0	41.1	
51 Carbon tetrachloride	117	4.681	4.681	0.000	94	1050762	40.0	43.9	
52 Isobutyl alcohol	41	4.788	4.788	0.000	91	219722	1000.0	966.8	
53 Benzene	78	4.859	4.859	0.000	95	2683174	40.0	39.8	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	98	800372	40.0	39.3	
56 n-Heptane	57	5.072	5.072	0.000	85	469684	40.0	41.6	
58 Trichloroethene	130	5.403	5.403	0.000	96	860920	40.0	40.9	
60 Methylcyclohexane	83	5.557	5.557	0.000	82	1303087	40.0	44.3	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	88	537548	40.0	40.1	
63 Dibromomethane	174	5.699	5.699	0.000	95	431685	40.0	39.5	
64 1,4-Dioxane	88	5.711	5.711	0.000	84	58909	800.0	846.3	
65 Dichlorobromomethane	83	5.829	5.829	0.000	99	944342	40.0	42.8	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	92	608105	80.0	82.0	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	97	994497	40.0	41.1	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	91	752921	80.0	82.1	
70 Toluene	91	6.503	6.503	0.000	99	3383969	40.0	41.0	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	89	931257	40.0	42.3	
72 Ethyl methacrylate	69	6.776	6.776	0.000	84	751622	40.0	43.4	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	91	583454	40.0	39.2	
75 Tetrachloroethene	166	7.000	7.000	0.000	97	912389	40.0	40.1	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	956812	40.0	40.1	
77 2-Hexanone	43	7.095	7.095	0.000	87	518082	80.0	79.8	
79 Chlorodibromomethane	129	7.225	7.225	0.000	91	711006	40.0	43.6	
80 Ethylene Dibromide	107	7.332	7.332	0.000	98	598330	40.0	40.8	
82 Chlorobenzene	112	7.781	7.781	0.000	98	2277174	40.0	40.1	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	95	785271	40.0	42.9	
84 Ethylbenzene	106	7.876	7.876	0.000	97	1353560	40.0	41.4	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	100	1661542	40.0	42.1	
86 o-Xylene	106	8.361	8.361	0.000	95	1620511	40.0	42.5	
87 Styrene	104	8.373	8.373	0.000	94	2692449	40.0	43.7	
88 Bromoform	173	8.551	8.551	0.000	93	413209	40.0	46.5	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	4276917	40.0	42.7	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	75	726920	40.0	38.6	
92 Bromobenzene	156	9.000	9.000	0.000	86	1016942	40.0	39.3	
93 1,2,3-Trichloropropane	110	9.048	9.048	0.000	84	279423	40.0	37.9	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	77	160803	40.0	39.0	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	1260863	40.0	41.0	
96 2-Chlorotoluene	126	9.190	9.190	0.000	97	1042842	40.0	41.6	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	96	3625921	40.0	41.2	
98 4-Chlorotoluene	126	9.296	9.296	0.000	96	1110149	40.0	41.0	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	3310251	40.0	41.1	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	95	3745450	40.0	41.7	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	4807054	40.0	41.4	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263879.D
Lims ID: std8260 L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-May-2018 14:24:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076237-016
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 25-May-2018 12:49:31 Calib Date: 24-May-2018 18:05:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180524-76237.b\U1263888.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: bosworthh Date: 24-May-2018 14:48:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1747396	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	81	1408101	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.971	9.970	0.001	92	830825	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	1129611	60.0	56.3	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	97	1069518	60.0	52.5	
$ 6 Toluene-d8 (Surr)	98	6.456	6.456	0.000	92	4630386	60.0	55.5	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	93	1742177	60.0	54.4	
9 Dichlorodifluoromethane	85	1.392	1.392	0.000	100	1356845	60.0	71.9	
10 Chloromethane	50	1.510	1.510	0.000	99	945518	60.0	56.9	
11 Vinyl chloride	62	1.593	1.593	0.000	99	1153367	60.0	59.5	
12 Butadiene	54	1.617	1.616	0.001	85	1034602	60.0	63.4	
13 Bromomethane	94	1.865	1.865	0.000	91	1281423	60.0	61.3	
14 Chloroethane	64	1.948	1.960	-0.012	99	870008	60.0	59.8	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	99	1961196	60.0	58.1	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	99	2282675	60.0	67.0	
17 Ethyl ether	59	2.409	2.421	-0.012	84	670873	60.0	55.6	
18 Acrolein	56	2.540	2.539	0.001	99	401377	300.0	287.6	
21 1,1-Dichloroethene	61	2.611	2.610	0.000	95	1425304	60.0	59.9	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	96	1125177	60.0	67.7	
22 Acetone	43	2.670	2.670	0.000	100	297733	120.0	113.6	
23 Iodomethane	142	2.753	2.752	0.000	99	1733962	60.0	59.5	
24 Carbon disulfide	76	2.800	2.800	0.000	100	2961360	60.0	58.6	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	77	1032415	60.0	56.0	
27 Methyl acetate	43	2.954	2.954	0.000	94	784563	120.0	112.9	
28 Methylene Chloride	49	3.036	3.048	-0.012	81	1009068	60.0	58.6	
29 2-Methyl-2-propanol	59	3.167	3.155	0.012	99	660089	600.0	542.0	
30 Acrylonitrile	53	3.261	3.261	0.000	98	2014229	600.0	587.4	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	89	1287479	60.0	60.0	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	2848507	60.0	59.6	
33 Hexane	57	3.498	3.498	0.000	87	1120146	60.0	70.1	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	1465220	60.0	61.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	97	897393	60.0	59.9	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	81	1211170	60.0	60.7	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	77	1617945	60.0	59.4	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	95	177321	120.0	122.2	
45 Chlorobromomethane	49	4.326	4.326	0.000	81	609521	60.0	57.2	
46 Tetrahydrofuran	42	4.374	4.374	0.000	76	284989	120.0	102.7	
47 Chloroform	83	4.397	4.397	0.000	95	1888956	60.0	61.1	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	96	1932932	60.0	61.4	
49 Cyclohexane	84	4.587	4.587	0.001	78	1814262	60.0	67.2	
51 Carbon tetrachloride	117	4.681	4.681	0.000	94	1700503	60.0	65.4	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	93	1513250	60.0	59.9	
52 Isobutyl alcohol	41	4.788	4.788	0.000	90	342515	1500.0	1386.2	
53 Benzene	78	4.859	4.859	0.000	95	4221296	60.0	57.6	
54 1,2-Dichloroethane	62	4.882	4.882	0.000	98	1245124	60.0	56.2	
56 n-Heptane	57	5.072	5.072	0.000	76	711684	60.0	59.8	
58 Trichloroethene	130	5.403	5.403	0.000	96	1338647	60.0	58.6	
60 Methylcyclohexane	83	5.557	5.557	0.000	80	2101031	60.0	65.7	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	90	847063	60.0	58.1	
63 Dibromomethane	174	5.699	5.699	0.000	95	681210	60.0	57.4	
64 1,4-Dioxane	88	5.711	5.711	0.000	83	92887	1200.0	1227.5	
65 Dichlorobromomethane	83	5.829	5.829	0.000	99	1497600	60.0	62.4	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	91	963771	120.0	119.6	
68 cis-1,3-Dichloropropene	75	6.220	6.219	0.001	97	1577074	60.0	59.9	
69 4-Methyl-2-pentanone (MIBK	43	6.350	6.350	0.000	90	1147394	120.0	115.1	
70 Toluene	91	6.515	6.503	0.012	99	5227197	60.0	58.0	
71 trans-1,3-Dichloropropene	75	6.705	6.705	0.000	89	1468166	60.0	61.1	
72 Ethyl methacrylate	69	6.776	6.776	0.000	84	1191373	60.0	63.0	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	91	900112	60.0	55.4	
75 Tetrachloroethene	166	7.001	7.000	0.000	98	1410194	60.0	56.7	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	1451437	60.0	55.8	
77 2-Hexanone	43	7.095	7.095	0.000	90	795884	120.0	112.3	
79 Chlorodibromomethane	129	7.225	7.225	0.000	90	1138432	60.0	64.0	
80 Ethylene Dibromide	107	7.332	7.332	0.000	98	944967	60.0	59.0	
82 Chlorobenzene	112	7.781	7.781	0.000	98	3530784	60.0	57.0	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	95	1266544	60.0	63.3	
84 Ethylbenzene	106	7.876	7.876	0.000	97	2075431	60.0	58.2	
85 m-Xylene & p-Xylene	106	7.983	7.983	0.000	100	2561742	60.0	59.5	
86 o-Xylene	106	8.361	8.361	0.000	94	2490453	60.0	59.9	
87 Styrene	104	8.373	8.373	0.000	93	4235085	60.0	62.9	
88 Bromoform	173	8.551	8.551	0.000	93	680252	60.0	70.1	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	6643081	60.0	60.8	
92 Bromobenzene	156	9.000	9.000	0.000	86	1588832	60.0	55.8	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	74	1151993	60.0	55.5	
93 1,2,3-Trichloropropane	110	9.048	9.048	0.000	84	442197	60.0	54.5	
94 trans-1,4-Dichloro-2-buten	53	9.059	9.059	0.000	81	259472	60.0	57.1	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	1990915	60.0	58.7	
96 2-Chlorotoluene	126	9.190	9.190	0.000	98	1631918	60.0	59.1	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	95	5550188	60.0	57.3	
98 4-Chlorotoluene	126	9.296	9.296	0.000	99	1736739	60.0	58.2	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	5140650	60.0	58.0	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	95	5748723	60.0	58.1	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	7341976	60.0	57.3	

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3524	0.2812	0.1000	0.0160	0.0200	-20.2*	20.0
Chloromethane	Ave	0.2290	0.2343	0.1000	0.0205	0.0200	2.3	20.0
Vinyl chloride	Ave	0.2642	0.2629	0.1000	0.0199	0.0200	-0.5	20.0
Butadiene	Ave	0.2375	0.2294		0.0193	0.0200	-3.4	20.0
Bromomethane	Ave	0.2643	0.2460	0.0500	0.0186	0.0200	-6.9	20.0
Chloroethane	Ave	0.1818	0.1884	0.0500	0.0207	0.0200	3.6	20.0
Dichlorofluoromethane	Ave	0.4148	0.4249		0.0205	0.0200	2.4	20.0
Trichlorofluoromethane	Ave	0.4980	0.4502	0.1000	0.0181	0.0200	-9.6	20.0
Ethyl ether	Ave	0.1427	0.1512		0.0212	0.0200	6.0	20.0
Acrolein	Ave	0.0225	0.0231		0.103	0.100	2.6	50.0
1,1-Dichloroethene	Ave	0.3066	0.3185	0.1000	0.0208	0.0200	3.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2730	0.2466	0.0500	0.0181	0.0200	-9.7	20.0
Acetone	Lin1		0.0330	0.0100	0.0433	0.0400	8.2	50.0
Iodomethane	Ave	0.4286	0.3781		0.0176	0.0200	-11.8	20.0
Carbon disulfide	Ave	0.7522	0.7017	0.1000	0.0187	0.0200	-6.7	20.0
3-Chloro-1-propene	Ave	0.2211	0.2326		0.0210	0.0200	5.2	20.0
Methyl acetate	Ave	0.0825	0.0809*	0.1000	0.0392	0.0400	-1.9	20.0
Methylene Chloride	Ave	0.2226	0.2362	0.1000	0.0212	0.0200	6.1	50.0
tert-Butyl alcohol	Ave	0.0159	0.0165		0.207	0.200	3.5	50.0
Acrylonitrile	Ave	0.0412	0.0438		0.213	0.200	6.3	20.0
trans-1,2-Dichloroethene	Ave	0.2835	0.2855	0.1000	0.0201	0.0200	0.7	20.0
Methyl tert-butyl ether	Ave	0.5701	0.6024	0.1000	0.0211	0.0200	5.7	20.0
Hexane	Ave	0.2716	0.2695		0.0199	0.0200	-0.7	20.0
1,1-Dichloroethane	Ave	0.3077	0.3290	0.2000	0.0214	0.0200	6.9	20.0
Vinyl acetate	Ave	0.1577	0.2148		0.0272	0.0200	36.2	50.0
2,2-Dichloropropane	Ave	0.3448	0.3497		0.0203	0.0200	1.4	20.0
cis-1,2-Dichloroethene	Ave	0.2797	0.2581	0.1000	0.0185	0.0200	-7.7	20.0
2-Butanone (MEK)	Ave	0.0173	0.0190	0.0100	0.0438	0.0400	9.5	20.0
Bromochloromethane	Ave	0.1331	0.1278		0.0192	0.0200	-4.0	20.0
Tetrahydrofuran	Ave	0.0277	0.0291		0.0421	0.0400	5.3	20.0
Chloroform	Ave	0.3937	0.3883	0.2000	0.0197	0.0200	-1.4	20.0
1,1,1-Trichloroethane	Ave	0.3980	0.3899	0.1000	0.0196	0.0200	-2.0	20.0
Cyclohexane	Ave	0.4006	0.3762	0.1000	0.0188	0.0200	-6.1	20.0
1,1-Dichloropropene	Ave	0.3134	0.3195		0.0204	0.0200	2.0	20.0
Carbon tetrachloride	Ave	0.3465	0.3281	0.1000	0.0189	0.0200	-5.3	20.0
Isobutyl alcohol	Ave	0.0032	0.0030		0.474	0.500	-5.1	20.0
Benzene	Ave	0.8849	0.9108	0.5000	0.0206	0.0200	2.9	20.0
1,2-Dichloroethane	Ave	0.2402	0.2467	0.1000	0.0205	0.0200	2.7	20.0
n-Heptane	Lin1		0.1685		0.0186	0.0200	-6.9	20.0
Trichloroethene	Ave	0.2960	0.2641	0.1500	0.0178	0.0200	-10.8	20.0

FORM VII 8260C

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4548	0.4291	0.1000	0.0189	0.0200	-5.7	20.0
1,2-Dichloropropane	Ave	0.1717	0.1738	0.1000	0.0202	0.0200	1.2	20.0
Dibromomethane	Ave	0.1451	0.1194		0.0164	0.0200	-17.8	20.0
1,4-Dioxane	Ave	0.0015	0.0013		0.339	0.400	-15.2	50.0
Bromodichloromethane	Ave	0.2882	0.2938	0.1500	0.0204	0.0200	1.9	20.0
2-Chloroethyl vinyl ether	Ave	0.0796	0.0933		0.0469	0.0400	17.3	20.0
cis-1,3-Dichloropropene	Ave	0.3116	0.3111	0.1500	0.0200	0.0200	-0.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1021	0.1093	0.0500	0.0428	0.0400	7.0	20.0
Toluene	Ave	1.317	1.348	0.4000	0.0205	0.0200	2.4	20.0
trans-1,3-Dichloropropene	Ave	0.3443	0.3409	0.1000	0.0198	0.0200	-1.0	20.0
Ethyl methacrylate	Ave	0.2604	0.2789		0.0214	0.0200	7.1	20.0
1,1,2-Trichloroethane	Ave	0.2286	0.2215	0.1000	0.0194	0.0200	-3.1	20.0
Tetrachloroethene	Ave	0.3936	0.3315	0.1500	0.0168	0.0200	-15.8	20.0
1,3-Dichloropropane	Ave	0.3618	0.3700		0.0205	0.0200	2.3	20.0
2-Hexanone	Ave	0.0858	0.0993	0.0500	0.0463	0.0400	15.7	20.0
Chlorodibromomethane	Ave	0.2713	0.2590		0.0191	0.0200	-4.5	20.0
1,2-Dibromoethane	Ave	0.2287	0.2258		0.0197	0.0200	-1.3	20.0
Chlorobenzene	Ave	0.9528	0.9029	0.3000	0.0190	0.0200	-5.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3135	0.3080		0.0196	0.0200	-1.8	20.0
Ethylbenzene	Ave	0.5190	0.5158		0.0199	0.0200	-0.6	20.0
m-Xylene & p-Xylene	Ave	0.6483	0.6443		0.0199	0.0200	-0.6	20.0
o-Xylene	Ave	0.6100	0.6122		0.0201	0.0200	0.4	20.0
Styrene	Ave	1.018	1.026	0.3000	0.0202	0.0200	0.8	20.0
Bromoform	Ave	0.1508	0.1359	0.1000	0.0180	0.0200	-9.9	20.0
Isopropylbenzene	Ave	1.617	1.657	0.1000	0.0205	0.0200	2.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4640	0.4923	0.3000	0.0212	0.0200	6.1	20.0
Bromobenzene	Ave	0.7526	0.6703		0.0178	0.0200	-10.9	20.0
1,2,3-Trichloropropane	Ave	0.1805	0.1887		0.0209	0.0200	4.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0974	0.1081		0.0222	0.0200	10.9	20.0
N-Propylbenzene	Ave	0.8654	0.8488		0.0196	0.0200	-1.9	20.0
2-Chlorotoluene	Ave	0.7278	0.7098		0.0195	0.0200	-2.5	20.0
1,3,5-Trimethylbenzene	Ave	2.371	2.444		0.0206	0.0200	3.1	20.0
4-Chlorotoluene	Ave	0.7886	0.7451		0.0189	0.0200	-5.5	20.0
tert-Butylbenzene	Ave	2.255	2.200		0.0195	0.0200	-2.4	20.0
1,2,4-Trimethylbenzene	Ave	2.455	2.539		0.0207	0.0200	3.4	20.0
sec-Butylbenzene	Ave	3.199	3.244		0.0203	0.0200	1.4	20.0
1,3-Dichlorobenzene	Ave	1.554	1.399	0.6000	0.0180	0.0200	-10.0	20.0
4-Isopropyltoluene	Ave	2.783	2.825		0.0203	0.0200	1.5	20.0
1,4-Dichlorobenzene	Ave	1.648	1.445	0.5000	0.0175	0.0200	-12.4	20.0
n-Butylbenzene	Ave	2.247	2.305		0.0205	0.0200	2.6	20.0
1,2-Dichlorobenzene	Ave	1.439	1.303	0.4000	0.0181	0.0200	-9.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVIS 240-330979/5 Calibration Date: 06/11/2018 10:44

Instrument ID: A3UX12 Calib Start Date: 06/05/2018 17:54

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/05/2018 20:44

Lab File ID: U1264342a.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1061	0.0959	0.0500	0.0181	0.0200	-9.7	50.0
1,2,4-Trichlorobenzene	Ave	0.9623	0.7725	0.2000	0.0161	0.0200	-19.7	50.0
Hexachlorobutadiene	Ave	0.3791	0.2775		0.0146	0.0200	-26.8*	20.0
Naphthalene	Ave	1.827	1.723		0.0189	0.0200	-5.7	50.0
1,2,3-Trichlorobenzene	Ave	0.8393	0.6725		0.0160	0.0200	-19.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2434	0.2489		0.0204	0.0200	2.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2094	0.2381		0.0227	0.0200	13.7	20.0
Toluene-d8 (Surr)	Ave	1.211	1.304		0.0215	0.0200	7.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4581	0.4876		0.0213	0.0200	6.4	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\U1264342a.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Jun-2018 10:44:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076809-005
Operator ID: 001765 Instrument ID: A3UX12
Sublist: chrom-8260_12*sub45

Method: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jun-2018 11:37:52 Calib Date: 05-Jun-2018 20:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\U1264198b.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK007

First Level Reviewer: bosworthh Date: 11-Jun-2018 11:37:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	100	1270407	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	82	1012695	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	93	565331	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	316148	20.0	20.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	98	302419	20.0	22.7	
$ 6 Toluene-d8 (Surr)	98	6.444	6.444	0.000	92	1320171	20.0	21.5	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	89	493761	20.0	21.3	
9 Dichlorodifluoromethane	85	1.391	1.391	0.000	100	357211	20.0	16.0	
10 Chloromethane	50	1.498	1.498	0.000	98	297682	20.0	20.5	
11 Vinyl chloride	62	1.593	1.593	0.000	97	333961	20.0	19.9	
12 Butadiene	54	1.616	1.616	0.000	85	291435	20.0	19.3	
13 Bromomethane	94	1.865	1.865	0.000	91	312498	20.0	18.6	
14 Chloroethane	64	1.948	1.948	0.000	99	239323	20.0	20.7	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	99	539741	20.0	20.5	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	98	571876	20.0	18.1	
17 Ethyl ether	59	2.409	2.409	0.000	83	192035	20.0	21.2	
18 Acrolein	56	2.539	2.539	0.000	98	146818	100.0	102.6	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	94	404633	20.0	20.8	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	97	313278	20.0	18.1	
22 Acetone	43	2.669	2.669	0.000	100	83794	40.0	43.3	
23 Iodomethane	142	2.752	2.752	0.000	100	480360	20.0	17.6	
24 Carbon disulfide	76	2.800	2.800	0.000	99	891484	20.0	18.7	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	81	295544	20.0	21.0	
27 Methyl acetate	43	2.953	2.953	0.000	94	205530	40.0	39.2	
28 Methylene Chloride	49	3.036	3.036	0.000	82	300081	20.0	21.2	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	209510	200.0	207.1	
30 Acrylonitrile	53	3.261	3.261	0.000	99	556007	200.0	212.7	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	87	362745	20.0	20.1	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	765274	20.0	21.1	
33 Hexane	57	3.498	3.498	0.000	86	342429	20.0	19.9	
34 1,1-Dichloroethane	63	3.640	3.640	0.000	97	418019	20.0	21.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Vinyl acetate	43	3.675	3.675	0.000	97	272890	20.0	27.2	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	81	327863	20.0	18.5	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	77	444301	20.0	20.3	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	94	48153	40.0	43.8	
45 Chlorobromomethane	49	4.326	4.326	0.000	84	162395	20.0	19.2	
46 Tetrahydrofuran	42	4.362	4.362	0.000	77	74014	40.0	42.1	
47 Chloroform	83	4.397	4.397	0.000	95	493256	20.0	19.7	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	96	495358	20.0	19.6	
49 Cyclohexane	84	4.586	4.586	0.000	79	477942	20.0	18.8	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	94	405882	20.0	20.4	
51 Carbon tetrachloride	117	4.681	4.681	0.000	91	416765	20.0	18.9	
52 Isobutyl alcohol	41	4.788	4.788	0.000	93	95428	500.0	474.4	
53 Benzene	78	4.859	4.859	0.000	95	1157135	20.0	20.6	
54 1,2-Dichloroethane	62	4.870	4.870	0.000	98	313347	20.0	20.5	
56 n-Heptane	57	5.072	5.072	0.000	78	214083	20.0	18.6	
58 Trichloroethene	130	5.403	5.403	0.000	96	335530	20.0	17.8	
60 Methylcyclohexane	83	5.557	5.557	0.000	80	545128	20.0	18.9	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	88	220780	20.0	20.2	
63 Dibromomethane	174	5.699	5.699	0.000	93	151634	20.0	16.4	
64 1,4-Dioxane	88	5.710	5.710	0.000	84	32388	400.0	339.2	
65 Dichlorobromomethane	83	5.829	5.829	0.000	99	373214	20.0	20.4	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	91	237172	40.0	46.9	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	97	395164	20.0	20.0	
69 4-Methyl-2-pentanone (MIBK	43	6.349	6.349	0.000	89	277681	40.0	42.8	
70 Toluene	91	6.503	6.503	0.000	99	1365414	20.0	20.5	
71 trans-1,3-Dichloropropene	75	6.704	6.704	0.000	89	345259	20.0	19.8	
72 Ethyl methacrylate	69	6.775	6.775	0.000	83	282433	20.0	21.4	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	90	224266	20.0	19.4	
75 Tetrachloroethene	166	6.988	6.988	0.000	96	335672	20.0	16.8	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	84	374673	20.0	20.5	
77 2-Hexanone	43	7.095	7.095	0.000	92	201026	40.0	46.3	
79 Chlorodibromomethane	129	7.225	7.225	0.000	88	262303	20.0	19.1	
80 Ethylene Dibromide	107	7.332	7.332	0.000	98	228653	20.0	19.7	
82 Chlorobenzene	112	7.781	7.781	0.000	98	914363	20.0	19.0	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	94	311909	20.0	19.6	
84 Ethylbenzene	106	7.876	7.876	0.000	97	522389	20.0	19.9	
85 m-Xylene & p-Xylene	106	7.982	7.982	0.000	100	652513	20.0	19.9	
86 o-Xylene	106	8.361	8.361	0.000	95	620013	20.0	20.1	
87 Styrene	104	8.373	8.373	0.000	94	1038747	20.0	20.2	
88 Bromoform	173	8.550	8.550	0.000	91	137583	20.0	18.0	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	1678335	20.0	20.5	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	73	278286	20.0	21.2	
92 Bromobenzene	156	9.000	9.000	0.000	87	378938	20.0	17.8	
93 1,2,3-Trichloropropane	110	9.047	9.047	0.000	83	106650	20.0	20.9	
94 trans-1,4-Dichloro-2-buten	53	9.047	9.047	0.000	73	61095	20.0	22.2	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	479869	20.0	19.6	
96 2-Chlorotoluene	126	9.189	9.189	0.000	98	401244	20.0	19.5	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	95	1381605	20.0	20.6	
98 4-Chlorotoluene	126	9.296	9.296	0.000	96	421247	20.0	18.9	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	1243784	20.0	19.5	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	96	1435229	20.0	20.7	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	1834108	20.0	20.3	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	47	U	330	47
71-55-6	1,1,1-Trichloroethane	80	U	330	80
79-34-5	1,1,2,2-Tetrachloroethane	43	U	330	43
76-13-1	1,1,2-Trichlorotrifluoroethane	140	U	330	140
75-34-3	1,1-Dichloroethane	57	U	330	57
75-35-4	1,1-Dichloroethene	63	U	330	63
563-58-6	1,1-Dichloropropene	47	U	330	47
87-61-6	1,2,3-Trichlorobenzene	180	U	330	180
96-18-4	1,2,3-Trichloropropane	80	U	330	80
526-73-8	1,2,3-Trimethylbenzene	47	U	1700	47
120-82-1	1,2,4-Trichlorobenzene	87	U	330	87
95-63-6	1,2,4-Trimethylbenzene	23	U	330	23
96-12-8	1,2-Dibromo-3-Chloropropane	300	U	670	300
95-50-1	1,2-Dichlorobenzene	50	U	330	50
107-06-2	1,2-Dichloroethane	70	U	330	70
78-87-5	1,2-Dichloropropane	50	U	330	50
541-73-1	1,3-Dichlorobenzene	50	U	330	50
142-28-9	1,3-Dichloropropane	70	U	330	70
106-46-7	1,4-Dichlorobenzene	53	U	330	53
594-20-7	2,2-Dichloropropane	100	U	330	100
78-93-3	2-Butanone (MEK)	390	U	3300	390
110-75-8	2-Chloroethyl vinyl ether	87	U	3300	87
95-49-8	2-Chlorotoluene	50	U	330	50
591-78-6	2-Hexanone	180	U	3300	180
106-43-4	4-Chlorotoluene	30	U	330	30
99-87-6	4-Isopropyltoluene	43	U	330	43
108-10-1	4-Methyl-2-pentanone (MIBK)	140	U	3300	140
67-64-1	Acetone	1800	U	3300	1800
71-43-2	Benzene	43	U	330	43
108-86-1	Bromobenzene	40	U	330	40
75-25-2	Bromoform	250	U	330	250
74-83-9	Bromomethane	140	U	330	140
75-15-0	Carbon disulfide	93	U	330	93
56-23-5	Carbon tetrachloride	87	U	330	87
108-90-7	Chlorobenzene	47	U	330	47
124-48-1	Chlorodibromomethane	130	U	330	130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: U1264357a.D

Analysis Method: 8260C | Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: | Dilution Factor: 333.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330979 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	280	U	330	280
67-66-3	Chloroform	43	U	330	43
74-87-3	Chloromethane	67	U	330	67
156-59-2	cis-1,2-Dichloroethene	8400		330	53
10061-01-5	cis-1,3-Dichloropropene	200	U	330	200
74-95-3	Dibromomethane	30	U	330	30
74-97-5	Bromochloromethane	47	U	330	47
75-71-8	Dichlorodifluoromethane	120	U	330	120
75-27-4	Bromodichloromethane	57	U	330	57
75-65-0	tert-Butyl alcohol	560	U	17000	560
100-41-4	Ethylbenzene	37	U	330	37
87-68-3	Hexachlorobutadiene	280	U	330	280
108-20-3	Diisopropyl ether	57	U	3300	57
98-82-8	Isopropylbenzene	30	U	330	30
1634-04-4	Methyl tert-butyl ether	23	U	330	23
75-09-2	Methylene Chloride	870	U	1700	870
179601-23-1	m-Xylene & p-Xylene	27	U	670	27
91-20-3	Naphthalene	110	U	330	110
104-51-8	n-Butylbenzene	47	U	330	47
103-65-1	N-Propylbenzene	50	U	330	50
95-47-6	o-Xylene	30	U	330	30
135-98-8	sec-Butylbenzene	43	U	330	43
100-42-5	Styrene	33	U	330	33
994-05-8	Tert-amyl methyl ether	37	U	1700	37
637-92-3	Ethyl tert-butyl ether	50	U	1700	50
127-18-4	Tetrachloroethene	50	U	330	50
108-88-3	Toluene	47	U	330	47
156-60-5	trans-1,2-Dichloroethene	63	J	330	63
10061-02-6	trans-1,3-Dichloropropene	220	U	330	220
79-01-6	Trichloroethene	890		330	33
75-69-4	Trichlorofluoromethane	150	U	330	150
108-05-4	Vinyl acetate	63	U *	670	63
75-01-4	Vinyl chloride	2100		330	67
1330-20-7	Xylenes, Total	50	U	670	50
98-06-6	tert-Butylbenzene	47	U	330	47
106-93-4	1,2-Dibromoethane	40	U	330	40

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4

Matrix: Water Lab File ID: U1264357a.D

Analysis Method: 8260C Date Collected: 05/31/2018 12:01

Sample wt/vol: 5(mL) Date Analyzed: 06/11/2018 17:44

Soil Aliquot Vol: Dilution Factor: 333.33

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 330979 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	113		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		69-124
460-00-4	4-Bromofluorobenzene (Surr)	109		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		61-138

TestAmerica Canton
Recovery Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\U1264357a.D
Lims ID: 240-96479-B-4
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 11-Jun-2018 17:44:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 333.3300
Sample Info: 240-0076809-020
Operator ID: 001765 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 12-Jun-2018 09:22:06 Calib Date: 05-Jun-2018 20:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\U1264198b.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK007

First Level Reviewer: bosworthh Date: 12-Jun-2018 09:22:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	20.0	20.8	104.13
$ 5 1,2-Dichloroethane-d4 (Surr)	20.0	24.1	120.26
$ 6 Toluene-d8 (Surr)	20.0	22.6	113.09
$ 7 4-Bromofluorobenzene (Surr)	20.0	21.8	108.91

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\U1264357a.D
Lims ID: 240-96479-B-4
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 11-Jun-2018 17:44:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 333.3300
Sample Info: 240-0076809-020
Operator ID: 001765 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 12-Jun-2018 09:22:06 Calib Date: 05-Jun-2018 20:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\U1264198b.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK007

First Level Reviewer: bosworthh Date: 12-Jun-2018 09:22:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	99	1105692	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	83	834730	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	97	391363	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	92	280295	20.8	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	95	278386	24.1	
$ 6 Toluene-d8 (Surr)	98	6.444	6.444	0.000	92	1143041	22.6	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	88	416453	21.8	
9 Dichlorodifluoromethane	85		1.391				ND	
10 Chloromethane	50		1.498				ND	
11 Vinyl chloride	62	1.593	1.593	0.000	98	91511	6.27	
13 Bromomethane	94		1.865				ND	
14 Chloroethane	64		1.948				ND	
16 Trichlorofluoromethane	101		2.161				ND	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	84	2850	0.1681	
20 1,1,2-Trichloro-1,2,2-trif	101		2.634				ND	
22 Acetone	43		2.669				ND	
24 Carbon disulfide	76		2.800				ND	
28 Methylene Chloride	49	3.036	3.036	0.000	71	4059	0.3299	
29 2-Methyl-2-propanol	59		3.155				ND	
32 trans-1,2-Dichloroethene	61	3.285	3.273	0.012	91	2973	0.1897	
31 Methyl tert-butyl ether	73		3.285				ND	
34 1,1-Dichloroethane	63		3.640				ND	
35 Vinyl acetate	43		3.675				ND	
36 Isopropyl ether	87		3.687				ND	
38 Tert-butyl ethyl ether	59		3.995				ND	
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	79	390139	25.2	
39 2,2-Dichloropropane	77		4.125				ND	
41 2-Butanone (MEK)	72		4.149				ND	U
45 Chlorobromomethane	49		4.326				ND	
47 Chloroform	83		4.397				ND	
48 1,1,1-Trichloroethane	97		4.551				ND	
51 Carbon tetrachloride	117		4.681				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
50 1,1-Dichloropropene	75		4.681				ND	
53 Benzene	78		4.859				ND	
54 1,2-Dichloroethane	62		4.870				ND	
55 Tert-amyl methyl ether	73		4.953				ND	
58 Trichloroethene	130	5.403	5.403	0.000	96	43786	2.68	
61 1,2-Dichloropropane	63		5.592				ND	
63 Dibromomethane	174		5.699				ND	
65 Dichlorobromomethane	83		5.829				ND	
67 2-Chloroethyl vinyl ether	63		6.089				ND	
68 cis-1,3-Dichloropropene	75		6.219				ND	
69 4-Methyl-2-pentanone (MIBK	43		6.349				ND	
70 Toluene	91		6.503				ND	
71 trans-1,3-Dichloropropene	75		6.704				ND	
75 Tetrachloroethene	166		6.988				ND	
76 1,3-Dichloropropane	76		7.024				ND	
77 2-Hexanone	43		7.095				ND	
79 Chlorodibromomethane	129		7.225				ND	
80 Ethylene Dibromide	107		7.332				ND	
82 Chlorobenzene	112		7.781				ND	
83 1,1,1,2-Tetrachloroethane	131		7.852				ND	
84 Ethylbenzene	106		7.876				ND	
85 m-Xylene & p-Xylene	106		7.982				ND	
86 o-Xylene	106		8.361				ND	
87 Styrene	104		8.373				ND	
88 Bromoform	173		8.550				ND	
89 Isopropylbenzene	105		8.704				ND	
92 Bromobenzene	156		9.000				ND	
91 1,1,2,2-Tetrachloroethane	83		9.000				ND	
93 1,2,3-Trichloropropane	110		9.047				ND	
95 N-Propylbenzene	120		9.107				ND	
96 2-Chlorotoluene	126		9.189				ND	
98 4-Chlorotoluene	126		9.296				ND	
99 tert-Butylbenzene	119		9.592				ND	
101 1,2,4-Trimethylbenzene	105		9.639				ND	
102 sec-Butylbenzene	105		9.805				ND	
103 1,3-Dichlorobenzene	146		9.911				ND	
104 4-Isopropyltoluene	119		9.947				ND	
105 1,4-Dichlorobenzene	146		9.994				ND	
106 1,2,3-Trimethylbenzene	105		10.053				ND	
108 n-Butylbenzene	91		10.349				ND	
109 1,2-Dichlorobenzene	146		10.361				ND	
110 1,2-Dibromo-3-Chloropropan	157		11.142				ND	
112 1,2,4-Trichlorobenzene	180		11.946				ND	
113 Hexachlorobutadiene	225		12.124				ND	
114 Naphthalene	128		12.195				ND	
115 1,2,3-Trichlorobenzene	180		12.443				ND	
S 126 Xylenes, Total	106		16.020				ND	
T 128 Chlorodifluoromethane TIC	51		1.140				ND	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264343.D

Lab ID: LCS 240-330979/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.8	74	42-141	
Bromodichloromethane	20.0	20.7	104	79-125	
tert-Butyl alcohol	200	220	110	52-136	
Ethylbenzene	20.0	21.3	106	80-120	
Hexachlorobutadiene	20.0	16.5	82	36-146	
Isopropylbenzene	20.0	21.6	108	80-128	
Methyl tert-butyl ether	20.0	22.4	112	73-120	
Methylene Chloride	20.0	22.1	111	64-140	
m-Xylene & p-Xylene	20.0	21.1	105	80-120	
Naphthalene	20.0	21.0	105	31-127	
n-Butylbenzene	20.0	22.0	110	60-137	
N-Propylbenzene	20.0	20.8	104	76-120	
o-Xylene	20.0	21.4	107	80-120	
sec-Butylbenzene	20.0	21.5	108	76-124	
Styrene	20.0	20.9	105	80-121	
Tetrachloroethene	20.0	17.8	89	80-122	
Toluene	20.0	21.5	107	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	74-124	
trans-1,3-Dichloropropene	20.0	21.9	110	67-120	
Trichloroethene	20.0	18.8	94 ✓	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	29.2	146	42-141	*
Vinyl chloride	20.0	19.8	99	65-124	
Xylenes, Total	40.0	42.5	106	80-120	
tert-Butylbenzene	20.0	21.0	105	79-120	
1,2-Dibromoethane	20.0	21.1	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\U1264343.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Jun-2018 11:07:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076809-006
Operator ID: 001765 Instrument ID: A3UX12

Method: \\ChromNA\Canton\ChromData\A3UX12\20180611-76809.b\8260_12.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Jun-2018 09:47:35 Calib Date: 05-Jun-2018 20:44:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\U1264198b.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK007

First Level Reviewer: bosworthh Date: 11-Jun-2018 11:39:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.095	5.095	0.000	100	1226528	20.0	20.0	
* 2 Chlorobenzene-d5	117	7.758	7.758	0.000	82	954342	20.0	20.0	
* 3 1,4-Dichlorobenzene-d4	152	9.970	9.970	0.000	94	524556	20.0	20.0	
$ 4 Dibromofluoromethane (Surr	111	4.527	4.527	0.000	91	319587	20.0	21.4	
$ 5 1,2-Dichloroethane-d4 (Sur	65	4.811	4.811	0.000	97	305864	20.0	23.8	
$ 6 Toluene-d8 (Surr)	98	6.444	6.444	0.000	91	1315610	20.0	22.8	
$ 7 4-Bromofluorobenzene (Surr	95	8.858	8.858	0.000	90	482432	20.0	22.1	
9 Dichlorodifluoromethane	85	1.391	1.391	0.000	99	319951	20.0	14.8	
10 Chloromethane	50	1.498	1.498	0.000	98	273020	20.0	19.4	
11 Vinyl chloride	62	1.593	1.593	0.000	99	321117	20.0	19.8	
12 Butadiene	54	1.616	1.616	0.000	85	257719	20.0	17.7	
13 Bromomethane	94	1.865	1.865	0.000	90	299100	20.0	18.5	
14 Chloroethane	64	1.948	1.948	0.000	99	228990	20.0	20.5	
15 Dichlorofluoromethane	67	2.125	2.125	0.000	98	547673	20.0	21.5	
16 Trichlorofluoromethane	101	2.161	2.161	0.000	98	572075	20.0	18.7	
17 Ethyl ether	59	2.421	2.409	0.012	83	201630	20.0	23.0	
18 Acrolein	56	2.539	2.539	0.000	99	83118	100.0	60.1	
21 1,1-Dichloroethene	61	2.610	2.610	0.000	95	422996	20.0	22.5	
20 1,1,2-Trichloro-1,2,2-trif	101	2.634	2.634	0.000	98	329920	20.0	19.7	
22 Acetone	43	2.669	2.669	0.000	99	84499	40.0	45.4	
23 Iodomethane	142	2.752	2.752	0.000	100	497140	20.0	18.9	
24 Carbon disulfide	76	2.800	2.800	0.000	99	900653	20.0	19.5	
26 3-Chloro-1-propene	41	2.930	2.930	0.000	79	297813	20.0	22.0	
27 Methyl acetate	43	2.953	2.953	0.000	94	210046	40.0	41.5	
28 Methylene Chloride	49	3.036	3.036	0.000	85	301791	20.0	22.1	
29 2-Methyl-2-propanol	59	3.155	3.155	0.000	99	215045	200.0	220.2	
30 Acrylonitrile	53	3.261	3.261	0.000	100	579309	200.0	229.5	
32 trans-1,2-Dichloroethene	61	3.273	3.273	0.000	89	378182	20.0	21.8	
31 Methyl tert-butyl ether	73	3.285	3.285	0.000	92	781605	20.0	22.4	
33 Hexane	57	3.498	3.498	0.000	86	331894	20.0	19.9	
34 1,1-Dichloroethane	63	3.628	3.640	-0.012	98	416427	20.0	22.1	
35 Vinyl acetate	43	3.675	3.675	0.000	97	282598	20.0	29.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 cis-1,2-Dichloroethene	96	4.125	4.125	0.000	80	329069	20.0	19.2	
39 2,2-Dichloropropane	77	4.125	4.125	0.000	77	443541	20.0	21.0	
41 2-Butanone (MEK)	72	4.149	4.149	0.000	96	46127	40.0	43.4	
45 Chlorobromomethane	49	4.326	4.326	0.000	82	167803	20.0	20.6	
46 Tetrahydrofuran	42	4.373	4.362	0.011	77	73714	40.0	43.5	
47 Chloroform	83	4.397	4.397	0.000	95	505246	20.0	20.9	
48 1,1,1-Trichloroethane	97	4.551	4.551	0.000	97	491154	20.0	20.1	
49 Cyclohexane	84	4.586	4.586	0.000	78	495209	20.0	20.2	
50 1,1-Dichloropropene	75	4.681	4.681	0.000	93	399388	20.0	20.8	
51 Carbon tetrachloride	117	4.681	4.681	0.000	94	425641	20.0	20.0	
52 Isobutyl alcohol	41	4.788	4.788	0.000	89	98232	500.0	505.8	
53 Benzene	78	4.859	4.859	0.001	94	1134348	20.0	20.9	
54 1,2-Dichloroethane	62	4.870	4.870	0.000	98	307666	20.0	20.9	
56 n-Heptane	57	5.072	5.072	0.000	79	212901	20.0	19.3	
58 Trichloroethene	130	5.403	5.403	0.000	97	341982	20.0	18.8	
60 Methylcyclohexane	83	5.557	5.557	0.000	81	544717	20.0	19.5	
61 1,2-Dichloropropane	63	5.592	5.592	0.000	92	234529	20.0	22.3	
63 Dibromomethane	174	5.699	5.699	0.000	94	152158	20.0	17.1	
64 1,4-Dioxane	88	5.710	5.710	0.000	87	32314	400.0	350.5	
65 Dichlorobromomethane	83	5.829	5.829	0.000	99	366635	20.0	20.7	
67 2-Chloroethyl vinyl ether	63	6.089	6.089	0.000	92	118062	20.0	24.2	
68 cis-1,3-Dichloropropene	75	6.219	6.219	0.000	97	408312	20.0	21.4	
69 4-Methyl-2-pentanone (MIBK	43	6.349	6.349	0.000	91	284179	40.0	45.4	
70 Toluene	91	6.503	6.503	0.000	99	1348629	20.0	21.5	
71 trans-1,3-Dichloropropene	75	6.704	6.704	0.000	89	360524	20.0	21.9	
72 Ethyl methacrylate	69	6.775	6.775	0.000	83	280591	20.0	22.6	
74 1,1,2-Trichloroethane	97	6.870	6.870	0.000	90	240041	20.0	22.0	
75 Tetrachloroethene	166	7.000	6.988	0.012	95	333962	20.0	17.8	
76 1,3-Dichloropropane	76	7.024	7.024	0.000	82	378421	20.0	21.9	
77 2-Hexanone	43	7.095	7.095	0.000	91	202567	40.0	49.5	
79 Chlorodibromomethane	129	7.225	7.225	0.000	89	268391	20.0	20.7	
80 Ethylene Dibromide	107	7.332	7.332	0.000	96	230320	20.0	21.1	
82 Chlorobenzene	112	7.781	7.781	0.000	98	918127	20.0	20.2	
83 1,1,1,2-Tetrachloroethane	131	7.852	7.852	0.000	94	302781	20.0	20.2	
84 Ethylbenzene	106	7.876	7.876	0.000	97	526532	20.0	21.3	
85 m-Xylene & p-Xylene	106	7.982	7.982	0.000	100	651757	20.0	21.1	
86 o-Xylene	106	8.361	8.361	0.000	95	622683	20.0	21.4	
87 Styrene	104	8.373	8.373	0.000	94	1016800	20.0	20.9	
88 Bromoform	173	8.550	8.550	0.000	93	146188	20.0	20.3	
89 Isopropylbenzene	105	8.704	8.704	0.000	95	1667386	20.0	21.6	
91 1,1,2,2-Tetrachloroethane	83	9.000	9.000	0.000	74	286877	20.0	23.6	
92 Bromobenzene	156	9.000	9.000	0.000	87	379076	20.0	19.2	
93 1,2,3-Trichloropropane	110	9.047	9.047	0.000	83	107712	20.0	22.8	
94 trans-1,4-Dichloro-2-buten	53	9.047	9.047	0.000	86	64384	20.0	25.2	
95 N-Propylbenzene	120	9.107	9.107	0.000	98	471489	20.0	20.8	
96 2-Chlorotoluene	126	9.189	9.189	0.000	98	405553	20.0	21.2	
97 1,3,5-Trimethylbenzene	105	9.272	9.272	0.000	95	1358989	20.0	21.9	
98 4-Chlorotoluene	126	9.296	9.296	0.000	96	415481	20.0	20.1	
99 tert-Butylbenzene	119	9.592	9.592	0.000	90	1243867	20.0	21.0	
101 1,2,4-Trimethylbenzene	105	9.639	9.639	0.000	95	1399542	20.0	21.7	
102 sec-Butylbenzene	105	9.805	9.805	0.000	93	1806213	20.0	21.5	
103 1,3-Dichlorobenzene	146	9.911	9.911	0.000	98	774106	20.0	19.0	

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264365.D

Lab ID: 240-96479-5 MS Client ID: MSA-MW-5-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2500	18 U	2240	90	67-142	
1,1,1-Trichloroethane	2500	30 U	2320	93	57-156	
1,1,2,2-Tetrachloroethane	2500	16 U	2520	101	51-123	
1,1,2-Trichlorotrifluoroethane	2500	51 U	2130	85	58-137	
1,1-Dichloroethane	2500	21 U	2590	104	69-122	
1,1-Dichloroethene	2500	24 U	2660	106	62-127	
1,1-Dichloropropene	2500	18 U	2420	97	55-136	
1,2,3-Trichlorobenzene	2500	68 U	1870	75	40-139	
1,2,3-Trichloropropane	2500	30 U	2300	92	41-152	
1,2,4-Trichlorobenzene	2500	33 U	1840	73	26-138	
1,2,4-Trimethylbenzene	2500	8.8 U	2480	99	64-120	
1,2-Dibromo-3-Chloropropane	2500	110 U	2040	82	48-130	
1,2-Dichlorobenzene	2500	19 U	2140	85	70-120	
1,2-Dichloroethane	2500	26 U	2450	98	64-138	
1,2-Dichloropropane	2500	19 U	2610	104	72-131	
1,3-Dichlorobenzene	2500	19 U	2160	87	71-120	
1,3-Dichloropropane	2500	26 U	2450	98	58-137	
1,4-Dichlorobenzene	2500	20 U	2090	84	72-120	
2,2-Dichloropropane	2500	39 U	2300	92	34-153	
2-Butanone (MEK)	5000	150 U	5550	111	34-153	
2-Chloroethyl vinyl ether	2500	33 U	2080	83	10-120	
2-Chlorotoluene	2500	19 U	2340	94	52-134	
2-Hexanone	5000	68 U	5020	100	21-184	
4-Chlorotoluene	2500	11 U	2310	92	52-133	
4-Isopropyltoluene	2500	16 U	2460	98	70-120	
4-Methyl-2-pentanone (MIBK)	5000	53 U	4910	98	53-147	
Acetone	5000	680 U	4850	97	19-133	
Benzene	2500	16 U	2510	100	69-127	
Bromobenzene	2500	15 U	2080	83	59-131	
Bromoform	2500	95 U	1940	78	61-135	
Bromomethane	2500	53 U	2270	91	10-148	
Carbon disulfide	2500	35 U	2280	91	46-143	
Carbon tetrachloride	2500	33 U	2140	85	53-175	
Chlorobenzene	2500	18 U	2320	93	76-120	
Chlorodibromomethane	2500	49 U	2160	86	62-131	
Chloroethane	2500	100 U	2550	102	10-141	
Chloroform	2500	16 U	2450	98	74-125	
Chloromethane	2500	25 U	2400	96	34-127	
cis-1,2-Dichloroethene	2500	3400	5630	90	69-127	
cis-1,3-Dichloropropene	2500	76 U	2460	98	68-120	
Dibromomethane	2500	11 U	1930	77	73-120	
Bromochloromethane	2500	18 U	2360	95	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264365.D

Lab ID: 240-96479-5 MS Client ID: MSA-MW-5-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	2500	44 U	1570	63	45-130	
Bromodichloromethane	2500	21 U	2470	99	75-128	
tert-Butyl alcohol	25000	210 U	22100	88	70-130	
Ethylbenzene	2500	14 U	2440	98	72-121	
Hexachlorobutadiene	2500	100 U	1680	67	30-134	
Isopropylbenzene	2500	11 U	2460	98	70-132	
Methyl tert-butyl ether	2500	8.8 U	2510	100	67-125	
Methylene Chloride	2500	330 U	2670	107	52-137	
m-Xylene & p-Xylene	2500	10 U	2450	98	70-121	
Naphthalene	2500	40 U	2100	84	28-150	
n-Butylbenzene	2500	18 U	2440	97	38-133	
N-Propylbenzene	2500	19 U	2300	92	50-134	
o-Xylene	2500	11 U	2470	99	71-125	
sec-Butylbenzene	2500	16 U	2400	96	43-133	
Styrene	2500	13 U	2410	96	74-125	
Tetrachloroethene	2500	19 U	2020	81	69-126	
Toluene	2500	18 U	2540	102	69-125	
trans-1,2-Dichloroethene	2500	64 J	2620	102	66-131	
trans-1,3-Dichloropropene	2500	84 U	2320	93	59-120	
Trichloroethene	2500	13 U	2190	87	68-129	
Trichlorofluoromethane	2500	56 U	2270	91	28-172	
Vinyl acetate	2500	24 U	3250	130	51-134	
Vinyl chloride	2500	590	3030	97	55-123	
Xylenes, Total	5000	19 U	4920	98	71-122	
tert-Butylbenzene	2500	18 U	2350	94	48-131	
1,2-Dibromoethane	2500	15 U	2280	91	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264366.D

Lab ID: 240-96479-5 MSD Client ID: MSA-MW-5-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	2500	2520	101	12	18	67-142	
1,1,1-Trichloroethane	2500	2470	99	6	13	57-156	
1,1,2,2-Tetrachloroethane	2500	2810	112	11	17	51-123	
1,1,2-Trichlorotrifluoroethane	2500	2190	88	3	35	58-137	
1,1-Dichloroethane	2500	2740	110	6	11	69-122	
1,1-Dichloroethene	2500	2720	109	2	14	62-127	
1,1-Dichloropropene	2500	2510	100	4	35	55-136	
1,2,3-Trichlorobenzene	2500	2190	88	16	35	40-139	
1,2,3-Trichloropropane	2500	2840	114	21	12	41-152	F2
1,2,4-Trichlorobenzene	2500	2120	85	15	35	26-138	
1,2,4-Trimethylbenzene	2500	2790	112	12	22	64-120	
1,2-Dibromo-3-Chloropropane	2500	2390	95	16	31	48-130	
1,2-Dichlorobenzene	2500	2510	100	16	19	70-120	
1,2-Dichloroethane	2500	2610	104	6	11	64-138	
1,2-Dichloropropane	2500	2750	110	5	12	72-131	
1,3-Dichlorobenzene	2500	2450	98	12	18	71-120	
1,3-Dichloropropane	2500	2700	108	10	35	58-137	
1,4-Dichlorobenzene	2500	2410	96	14	17	72-120	
2,2-Dichloropropane	2500	2460	99	7	35	34-153	
2-Butanone (MEK)	5000	5650	113	2	23	34-153	
2-Chloroethyl vinyl ether	2500	2200	88	5	35	10-120	
2-Chlorotoluene	2500	2640	105	12	35	52-134	
2-Hexanone	5000	5840	117	15	12	21-184	F2
4-Chlorotoluene	2500	2570	103	11	35	52-133	
4-Isopropyltoluene	2500	2750	110	11	22	70-120	
4-Methyl-2-pentanone (MIBK)	5000	5200	104	6	16	53-147	
Acetone	5000	5130	103	6	35	19-133	
Benzene	2500	2650	106	5	10	69-127	
Bromobenzene	2500	2440	98	16	35	59-131	
Bromoform	2500	2260	90	15	13	61-135	F2
Bromomethane	2500	2220	89	2	35	10-148	
Carbon disulfide	2500	2400	96	5	18	46-143	
Carbon tetrachloride	2500	2350	94	10	17	53-175	
Chlorobenzene	2500	2550	102	9	12	76-120	
Chlorodibromomethane	2500	2460	98	13	15	62-131	
Chloroethane	2500	2500	100	2	35	10-141	
Chloroform	2500	2560	102	4	11	74-125	
Chloromethane	2500	2410	97	1	25	34-127	
cis-1,2-Dichloroethene	2500	5760	95	2	11	69-127	
cis-1,3-Dichloropropene	2500	2570	103	5	13	68-120	
Dibromomethane	2500	2060	82	7	16	73-120	
Bromochloromethane	2500	2430	97	3	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1264366.D

Lab ID: 240-96479-5 MSD Client ID: MSA-MW-5-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	2500	1480	59	6	34	45-130	
Bromodichloromethane	2500	2600	104	5	13	75-128	
tert-Butyl alcohol	25000	22500	90	2	35	70-130	
Ethylbenzene	2500	2670	107	9	15	72-121	
Hexachlorobutadiene	2500	2020	81	19	35	30-134	
Isopropylbenzene	2500	2670	107	8	16	70-132	
Methyl tert-butyl ether	2500	2660	106	6	12	67-125	
Methylene Chloride	2500	2730	109	2	12	52-137	
m-Xylene & p-Xylene	2500	2660	107	8	15	70-121	
Naphthalene	2500	2440	98	15	35	28-150	
n-Butylbenzene	2500	2720	109	11	35	38-133	
N-Propylbenzene	2500	2730	109	17	35	50-134	
o-Xylene	2500	2720	109	10	15	71-125	
sec-Butylbenzene	2500	2750	110	13	35	43-133	
Styrene	2500	2670	107	10	14	74-125	
Tetrachloroethene	2500	2250	90	11	18	69-126	
Toluene	2500	2830	113	11	14	69-125	
trans-1,2-Dichloroethene	2500	2730	106	4	11	66-131	
trans-1,3-Dichloropropene	2500	2580	103	10	14	59-120	
Trichloroethene	2500	2310	92	5	12	68-129	
Trichlorofluoromethane	2500	2100	84	8	26	28-172	
Vinyl acetate	2500	3450	138	6	12	51-134	F1
Vinyl chloride	2500	3030	97	0	12	55-123	
Xylenes, Total	5000	5380	108	9	14	71-122	
tert-Butylbenzene	2500	2670	107	13	35	48-131	
1,2-Dibromoethane	2500	2570	103	12	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\BFB3856.D

Injection Date: 05-Jun-2018 17:08:30 Instrument ID: A3UX12

Lims ID: BFB

Client ID:

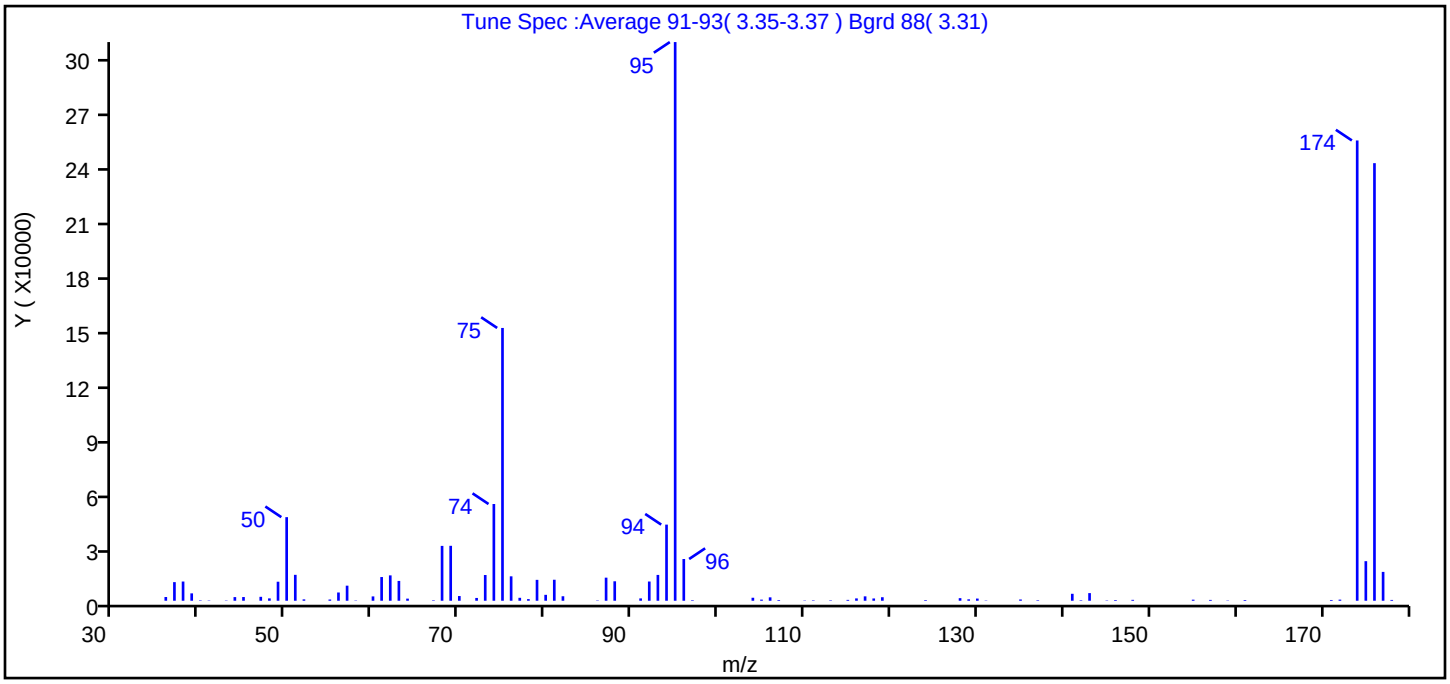
Operator ID: 001904 ALS Bottle#: 2 Worklist Smp#: 2

Injection Vol: 1.0 mL Dil. Factor: 1.0000

Method: 8260_12 Limit Group: MSV 8260C ICAL

Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.0 √
75	30 to 60% of m/z 95	48.8
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	82.4
175	5 to 9% of m/z 174	7.1 (8.6)
176	Greater than 95% but less than 101% of m/z 174	78.3 (95.1)
177	5 to 9% of m/z 176	5.2 (6.6)

Data File: \\ChromNA\Canton\ChromData\A3UX12\20180605-76642.b\BFB3856.D\8260_12.rslt\spectra.d
Injection Date: 05-Jun-2018 17:08:30
Spectrum: Tune Spec :Average 91-93(3.35-3.37) Bgrd 88(3.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2061	63.00	10941	93.00	14255	135.00	690
37.00	10274	64.00	1167	94.00	42040	137.00	297
38.00	10608	67.00	278	95.00	308544	141.00	3838
39.00	4070	68.00	30288	96.00	23048	142.00	271
40.00	240	69.00	30336	97.00	306	143.00	4210
41.00	183	70.00	2594	104.00	1654	145.00	187
43.00	175	72.00	1539	105.00	611	146.00	384
44.00	2010	73.00	14203	106.00	1878	148.00	495
45.00	2041	74.00	53416	107.00	389	155.00	584
47.00	2159	75.00	150656	110.00	167	157.00	462
48.00	1295	76.00	13483	111.00	248	159.00	167
49.00	10505	77.00	1623	113.00	245	161.00	397
50.00	46160	78.00	901	115.00	475	171.00	413
51.00	14305	79.00	11534	116.00	1290	172.00	603
52.00	751	80.00	3262	117.00	2424	174.00	254208
55.00	679	81.00	11594	118.00	1253	175.00	21848
56.00	4554	82.00	2474	119.00	1940	176.00	241664
57.00	8318	86.00	193	124.00	362	177.00	15927
58.00	174	87.00	12745	128.00	1420	178.00	444
60.00	2387	88.00	10737	129.00	780		
61.00	13087	91.00	1291	130.00	1200		
62.00	14004	92.00	10617	131.00	170		

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
DMW-7I-053118	240-96479-2	64	54	68	63	85	79
DMW-7D-053118	240-96479-3	59	48	61	63	72	83
DMW-7S-053118	240-96479-4	71	55	67	63	78	73
MSA-MW-5-053118	240-96479-5	70	53	72	70	91	86
	MB 240-329844/6-A	67	55	62	59	67	83
	LCS 240-329844/7-A	69	51	77	75	88	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: 80606019.D Lab Sample ID: MB 240-329844/6-A

Matrix: Water Date Extracted: 06/04/2018 07:15

Instrument ID: A4AG2 Date Analyzed: 06/06/2018 10:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-329844/7-A	80606020.D	06/06/2018 11:20
DMW-7I-053118	240-96479-2	80606012.D	06/06/2018 12:09
DMW-7D-053118	240-96479-3	80606013.D	06/06/2018 12:34
MSA-MW-5-053118	240-96479-5	80606015.D	06/06/2018 13:23
DMW-7S-053118	240-96479-4	80607006.D	06/07/2018 09:56

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329844/6-A

Matrix: Water | Lab File ID: 80606019.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 250(mL) | Date Analyzed: 06/06/2018 10:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330212 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	59		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	67		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80606020.D

Lab ID: LCS 240-329844/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.3	45	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: 80605001.D DFTPP Injection Date: 06/05/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:56

Analysis Batch No.: 330024

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	52.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	46.9	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	56.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	28.5	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.3	
442	40.0 - 110.0% of mass 198	71.2	
443	15.0 - 24.0% of mass 442	13.8	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-330024/2	80605002.D	06/05/2018	07:13
	STD8 240-330024/3	80605003.D	06/05/2018	07:38
	STD7 240-330024/4	80605004.D	06/05/2018	08:02
	STD6 240-330024/5	80605005.D	06/05/2018	08:27
	STD5 240-330024/6	80605006.D	06/05/2018	08:52
	STD4 240-330024/7	80605007.D	06/05/2018	09:16
	STD3 240-330024/8	80605008.D	06/05/2018	09:41
	STD2 240-330024/9	80605009.D	06/05/2018	10:06
	STD1 240-330024/10	80605010.D	06/05/2018	10:30
	ICV 240-330024/11	80605011.D	06/05/2018	10:55

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-330024/10	80605010.D
Level 2	STD2 240-330024/9	80605009.D
Level 3	STD3 240-330024/8	80605008.D
Level 4	STD4 240-330024/7	80605007.D
Level 5	STD5 240-330024/6	80605006.D
Level 6	STD6 240-330024/5	80605005.D
Level 7	STD7 240-330024/4	80605004.D
Level 8	STD8 240-330024/3	80605003.D
Level 9	STD9 240-330024/2	80605002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2300	0.3049 0.2330	0.2667 0.2272	0.2367 0.2335	0.2125	Ave		0.2431				12.0		20.0			
N-Nitrosodimethylamine	0.9564	0.8551 1.0177	0.8513 1.0235	0.8483 1.0649	0.9599	Ave		0.9471				9.1		20.0			
Pyridine	0.6888 0.6969	0.6957 0.7395	0.6822 0.7900	0.6290 0.7759	0.6342	Ave		0.7036				8.0		20.0			
Benzaldehyde	+++++ 1.2335	1.7208 1.0785	1.7153 0.9292	1.7443 +++++	1.4428	Qua	61.042	1.5133	-0.000150		0.0100				1.0000		0.9900
Phenol	1.5638	1.8833 1.4513	1.9101 1.3631	1.8912 1.4361	1.5502	Ave		1.6311			0.8000	13.9		20.0			
Aniline	2.8290	2.7390 2.7274	3.0750 2.6112	3.2696 2.7277	2.8594	Ave		2.8548				7.6		20.0			
Bis(2-chloroethyl)ether	2.0280	2.2913 1.9737	2.2688 1.8819	2.2296 2.0009	2.0283	Ave		2.0878			0.7000	7.3		20.0			
2-Chlorophenol	1.5474	1.5429 1.4534	1.5017 1.4612	1.6189 1.5155	1.5222	Ave		1.5204			0.8000	3.5		20.0			
n-Decane	1.7060	1.7465 1.7523	1.6794 1.7329	1.6595 1.6998	1.7530	Ave		1.7162				2.1		20.0			
1,3-Dichlorobenzene	1.5913	1.5771 1.6438	1.6017 1.6614	1.5942 1.6593	1.6107	Ave		1.6174				2.0		20.0			
1,4-Dichlorobenzene	1.6894	1.7149 1.7118	1.6818 1.7049	1.6518 1.7077	1.6677	Ave		1.6912				1.3		20.0			
Benzyl alcohol	1.0791	1.1514 1.1617	1.2094 1.1221	1.1302 1.2001	0.9040	Ave		1.1197				8.6		20.0			
1,2-Dichlorobenzene	1.7149	1.8066 1.7267	1.7169 1.6824	1.7353 1.7265	1.7196	Ave		1.7286				2.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4026	1.7510 1.4132	1.6564 1.4296	1.6179 1.5683	1.3550	Ave		1.5243			0.7000	9.4		20.0			
bis (2-chloroisopropyl) ether	3.3845	4.2455 3.1813	4.0383 2.9491	4.0816 2.9731	3.5389	Ave		3.5490				14.5		20.0			
Indene	3.3573	3.4921 3.2702	3.5310 3.0592	3.5674 3.0787	3.3700	Ave		3.3407				5.8		20.0			
3 & 4 Methylphenol	1.2538	1.6928 1.4270	1.6694 1.4638	1.4484 1.6162	1.0917	Ave		1.4579				14.2		20.0			
N-Nitrosodi-n-propylamine	1.5964	1.9033 1.4903	1.7219 1.3765	1.7599 1.4228	1.6230	Ave		1.6118			0.5000	11.1		20.0			
Acetophenone	2.6495	3.1347 2.5676	3.0563 2.4198	3.0405 2.4724	2.6250	Ave		2.7457			0.0100	10.4		20.0			
Hexachloroethane	0.6942	0.7215 0.6957	0.6703 0.6860	0.6873 0.6967	0.7015	Ave		0.6941			0.3000	2.1		20.0			
Nitrobenzene	0.4278	0.4077 0.4340	0.4136 0.4296	0.4290 0.4271	0.4343	Ave		0.4254			0.2000	2.3		20.0			
Isophorone	0.7494	0.6895 0.7500	0.6692 0.7379	0.7209 0.7427	0.7765	Ave		0.7295			0.4000	4.8		20.0			
2,4-Dimethylphenol	0.3278	0.2890 0.3561	0.2901 0.3629	0.2687 0.3717	0.2708	Ave		0.3171			0.2000	13.4		20.0			
2-Nitrophenol	0.1957	0.1572 0.2027	0.1616 0.2083	0.1766 0.2108	0.1907	Ave		0.1879			0.1000	11.0		20.0			
Benzoic acid	0.1791	+++++ 0.1957	0.0315 0.1812	0.0588 0.1967	0.1549	Lin1	-41.51	0.2006							0.9960		0.9900
Bis(2-chloroethoxy)methane	0.4557	0.4538 0.4617	0.4639 0.4582	0.4755 0.4617	0.4777	Ave		0.4635			0.3000	1.9		20.0			
2,4-Dichlorophenol	0.2097	0.1902 0.2458	0.1994 +++++	0.1848 +++++	0.1686	Ave		0.1997		*	0.2000	13.3		20.0			
1,2,4-Trichlorobenzene	0.2857	0.2753 0.2999	0.2690 0.3079	0.2746 0.3153	0.2870	Ave		0.2893				5.8		20.0			
Naphthalene	1.1200 1.0902	1.0662 1.1330	1.0511 1.1270	1.0983 1.1257	1.1123	Ave		1.1027			0.7000	2.6		20.0			
4-Chloroaniline	0.5904	0.3938 0.6058	0.5098 0.5679	0.5324 0.5671	0.5875	Ave		0.5443			0.0100	12.6		20.0			
2,6-Dichlorophenol	0.2682	0.2220 0.2800	0.2211 0.2860	0.2224 0.2927	0.2419	Ave		0.2543				12.1		20.0			
Hexachlorobutadiene	0.1470	0.1430 0.1579	0.1377 0.1603	0.1419 0.1638	0.1496	Ave		0.1501			0.0100	6.3		20.0			
Caprolactam	0.1019 0.1097	0.0994 0.1027	0.1141 0.1202	0.1235 0.1208	0.1220	Ave		0.1127			0.0100	8.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3050	0.1576 0.3123	0.1710 0.3091	0.1944 0.3151	0.2994	Lin1	-11.93	0.3170			0.2000				0.9980		0.9900
2-Methylnaphthalene	0.6681 0.7363	0.6903 0.7564	0.6841 0.7708	0.7015 0.7816	0.7418	Ave		0.7257			0.4000	5.6		20.0			
1-Methylnaphthalene	0.5999 0.6886	0.6399 0.7095	0.6566 0.7181	0.6735 0.7278	0.6990	Ave		0.6792				6.1		20.0			
Hexachlorocyclopentadiene	0.3509	0.2538 0.3857	0.2626 0.3973	0.2847 0.4197	0.3271	Ave		0.3352			0.0500	19.0		20.0			
1,2,4,5-Tetrachlorobenzene	0.5816	0.4862 0.6065	0.4810 0.6292	0.4788 0.6459	0.5273	Ave		0.5546			0.0100	12.6		20.0			
2,4,6-Trichlorophenol	0.3789	0.2267 0.4029	0.2463 0.4027	0.2898 0.4141	0.3639	Lin1	-13.81	0.4090			0.2000				0.9980		0.9900
2,4,5-Trichlorophenol	0.3900	0.1459 0.4114	0.1323 0.4095	0.2104 0.4165	0.3704	Lin1	-21.91	0.4192			0.2000				0.9960		0.9900
1,1'-Biphenyl	1.6522 1.7219	1.6513 1.7918	1.6280 1.7872	1.6573 1.8374	1.7278	Ave		1.7172			0.0100	4.4		20.0			
2-Chloronaphthalene	1.3190 1.2836	1.2161 1.3275	1.1566 1.3353	1.2296 1.3777	1.2809	Ave		1.2807			0.8000	5.4		20.0			
2-Nitroaniline	0.4851	0.3612 0.4901	0.4038 0.4735	0.4547 0.4691	0.4927	Ave		0.4538			0.0100	10.4		20.0			
Dimethyl phthalate	1.4284	1.4060 1.4558	1.3928 1.4468	1.4155 1.4665	1.4300	Ave		1.4302			0.0100	1.8		20.0			
1,3-Dinitrobenzene	0.2371	0.1464 0.2434	0.1856 0.2387	0.2072 0.2437	0.2348	Ave		0.2171				16.2		20.0			
2,6-Dinitrotoluene	0.3307	0.2596 0.3359	0.2877 0.3332	0.3128 0.3404	0.3336	Ave		0.3167				9.1		20.0			
Acenaphthylene	1.5158 1.8884	1.6689 1.9259	1.7356 1.9391	1.7929 1.9893	1.9018	Ave		1.8175			0.9000	8.4		20.0			
3-Nitroaniline	0.3409	0.2140 0.3118	0.3231 0.2957	0.3471 0.2918	0.3468	Ave		0.3089			0.0100	14.3		20.0			
2,4-Dinitrophenol	0.1817	+++++ 0.2004	0.0819 0.2075	0.1178 0.2202	0.1676	Lin1	-34.02	0.2157			0.0100				0.9960		0.9900
4-Nitrophenol	0.2195	0.1291 0.2287	0.1688 0.2279	0.1769 0.2339	0.2036	Ave		0.1985				18.7		20.0			
Acenaphthene	1.4783 1.4107	1.3245 1.4608	1.3209 1.4562	1.3307 1.4750	1.3812	Ave		1.4042			0.9000	4.8		20.0			
2,4-Dinitrotoluene	0.4074	0.3240 0.4231	0.3678 0.4163	0.3988 0.4223	0.4136	Ave		0.3967			0.2000	8.7		20.0			
Dibenzofuran	1.7954 1.7846	1.6971 1.8476	1.7438 1.8482	1.7311 1.8788	1.7954	Ave		1.7913			0.8000	3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.2888	0.2048 0.3058	0.2392 0.3081	0.2662 0.3209	0.2880	Ave		0.2777			0.0100	14.1		20.0			
Hexadecane	1.1518	1.2117 1.1450	1.2200 1.1018	1.2260 1.0812	1.2074	Ave		1.1681				4.8		20.0			
Diethyl phthalate	1.5048	1.6321 1.5753	1.4831 1.5287	1.4967 1.5658	1.5209	Ave		1.5384			0.0100	3.2		20.0			
4-Chlorophenyl phenyl ether	0.6745	0.6287 0.7049	0.6459 0.7019	0.6275 0.7404	0.6510	Ave		0.6719			0.4000	6.1		20.0			
4-Nitroaniline	0.3175	0.2470 0.3059	0.3135 0.2808	0.3457 0.2677	0.3358	Ave		0.3017			0.0100	11.3		20.0			
Fluorene	1.4116 1.5147	1.4091 1.5831	1.4109 1.5909	1.3988 1.6254	1.4706	Ave		1.4906			0.9000	6.1		20.0			
4,6-Dinitro-2-methylphenol	0.1345	0.0506 0.1530	0.0724 0.1571	0.0893 0.1626	0.1177	Lin1	-16.32	0.1575			0.0100				0.9940		0.9900
Diphenylamine	0.7661	0.6442 0.7897	0.6577 0.8000	0.6807 0.7988	0.7259	Ave		0.7329				8.9		20.0			
N-Nitrosodiphenylamine	0.6512	0.5476 0.6712	0.5590 0.6800	0.5786 0.6790	0.6170	Ave		0.6229			0.0100	8.9		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.0969	0.9647 1.1002	0.9903 1.0676	1.0117 1.0570	1.0909	Ave		1.0482				4.9		20.0			
Azobenzene	1.0968	0.9640 1.1004	0.9969 1.0676	1.0126 1.0570	1.0906	Ave		1.0482				4.9		20.0			
4-Bromophenyl phenyl ether	0.2304	0.1866 0.2418	0.1905 0.2465	0.1930 0.2511	0.2116	Ave		0.2189			0.1000	12.2		20.0			
Atrazine	0.1748 0.2486	0.1894 0.2737	0.1978 +++++	0.2002 +++++	0.2238	Ave		0.2155			0.0100	16.3		20.0			
Hexachlorobenzene	0.2109 0.2469	0.1939 0.2777	0.2027 +++++	0.2078 +++++	0.2269	Ave		0.2238			0.1000	13.2		20.0			
n-Octadecane	0.7439	0.6144 0.7475	0.6685 0.7216	0.6822 0.7045	0.7280	Ave		0.7013				6.4		20.0			
Pentachlorophenol	0.1465	+++++ 0.1689	0.0848 0.1759	0.1064 0.1849	0.1238	Lin1	-27.16	0.1795			0.0500				0.9930		0.9900
Phenanthrene	1.2402 1.1888	1.0971 1.2703	1.0778 1.2654	1.1062 1.2715	1.1625	Ave		1.1867			0.7000	6.7		20.0			
Anthracene	1.0306 1.2296	1.0634 1.3107	1.1184 1.3051	1.1235 1.3256	1.1915	Ave		1.1887			0.7000	9.3		20.0			
Carbazole	0.9911	0.9543 1.0299	0.9824 1.0638	0.9214 1.0488	0.9407	Ave		0.9915			0.0100	5.2		20.0			
Di-n-butyl phthalate	1.4968	1.2285 1.5657	1.2241 1.5107	1.2787 1.5121	1.4016	Ave		1.4023			0.0100	10.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0386 1.2401	1.0070 1.3127	1.0311 1.2703	1.0243 1.2844	1.1117	Ave		1.1467			0.6000	11.2		20.0			
Benzidine	 0.5379	0.1600 0.5472	0.3151 0.6271	0.3390 0.6222	0.4585	Lin1	-62.64	0.6058							0.9930		0.9900
Pyrene	1.3247 1.3042	1.1858 1.3162	1.2325 1.2806	1.2058 1.3145	1.2530	Ave		1.2686			0.6000	4.1		20.0			
Butyl benzyl phthalate	 0.6615	0.5420 0.6843	0.5871 0.6925	0.5934 0.7031	0.6644	Ave		0.6410			0.0100	9.2		20.0			
Bis(2-ethylhexyl) phthalate	 0.9151	0.7852 0.9506	0.7770 0.9665	0.8684 0.9802	0.8948	Ave		0.8922			0.0100	8.7		20.0			
3,3'-Dichlorobenzidine	 0.4317	0.3297 0.4284	0.3892 0.4538	0.4110 0.4742	0.4455	Ave		0.4204			0.0100	10.7		20.0			
Benzo[a]anthracene	1.2593 1.2140	1.0577 1.2501	1.1128 1.2704	1.1292 1.2902	1.1954	Ave		1.1977			0.8000	6.7		20.0			
Chrysene	1.2062 1.1689	1.1008 1.1991	1.1579 1.2114	1.1479 1.2427	1.1764	Ave		1.1790			0.7000	3.5		20.0			
Di-n-octyl phthalate	 1.7206	1.1547 1.8002	1.3086 1.8108	1.4580 1.8931	1.6042	Ave		1.5938			0.0100	16.6		20.0			
Benzo[b]fluoranthene	1.1793 1.2668	1.1013 1.3629	1.0933 1.3177	1.1632 1.4144	1.2204	Ave		1.2355			0.7000	9.2		20.0			
Benzo[k]fluoranthene	1.2935 1.3293	1.1915 1.3543	1.2210 1.4010	1.2389 1.4039	1.3193	Ave		1.3059			0.7000	5.8		20.0			
Benzo[a]pyrene	1.0030 1.1998	0.9922 1.2636	1.0588 1.2704	1.1126 1.3206	1.1511	Ave		1.1525			0.7000	10.4		20.0			
Indeno[1,2,3-cd]pyrene	1.0187 1.3148	1.0202 1.3706	1.0988 1.4108	1.1947 1.4821	1.2755	Ave		1.2429			0.5000	13.7		20.0			
Dibenz(a,h)anthracene	0.7463 1.1346	0.8652 1.1961	0.9287 1.2389	1.0157 +++++	1.0751	Ave		1.0251			0.4000	16.6		20.0			
Benzo[g,h,i]perylene	0.8234 1.0440	0.8895 1.0634	0.9526 1.0815	0.9991 1.1195	1.0462	Ave		1.0021			0.5000	9.6		20.0			
2-Fluorophenol (Surr)	 0.7513	0.6647 0.6785	0.6421 0.7403	0.6751 0.7021	0.7196	Ave		0.6967				5.5		20.0			
Phenol-d5 (Surr)	 1.4268	1.7505 1.3300	1.6477 1.2635	1.6962 1.3099	1.3797	Ave		1.4755				13.0		20.0			
Nitrobenzene-d5 (Surr)	0.3583 0.4276	0.3704 0.4358	0.3967 0.4314	0.4135 0.4374	0.4366	Ave		0.4120				7.3		20.0			
2-Fluorobiphenyl (Surr)	1.4637 1.4321	1.3734 1.4870	1.3706 1.4909	1.3926 1.5364	1.4042	Ave		1.4390				4.1		20.0			
2,4,6-Tribromophenol (Surr)	 0.1732	0.1251 0.1761	0.1437 0.1802	0.1523 0.1843	0.1707	Ave		0.1632				12.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Terphenyl-d14 (Surr)	0.9455 0.8686	0.7990 0.9111	0.7924 0.9366	0.8251 0.9602	0.8827	Ave		0.8801				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-330024/10	80605010.D
Level 2	STD2 240-330024/9	80605009.D
Level 3	STD3 240-330024/8	80605008.D
Level 4	STD4 240-330024/7	80605007.D
Level 5	STD5 240-330024/6	80605006.D
Level 6	STD6 240-330024/5	80605005.D
Level 7	STD7 240-330024/4	80605004.D
Level 8	STD8 240-330024/3	80605003.D
Level 9	STD9 240-330024/2	80605002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	68422	3516 112847	6542 154674	11782 187572	30840	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	284494	9860 492878	20883 696648	42226 855493	139332	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	3292 414584	16045 716334	33469 1075349	62622 1246667	184114	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	+++++ 733836	39684 1044675	84154 1264912	173650 +++++	418881	+++++ 2000	100 3000	200 4000	400 +++++	1000
Phenol	DCBd 4	Ave	465177	21716 702883	46857 927797	94137 1153635	225022	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	841554	31583 1320908	75432 1777293	162747 2191261	415072	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	603283	26420 955874	55656 1280881	110982 1607363	294423	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	460302	17791 703900	36839 994547	80585 1217478	220968	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	507478	20139 848648	41198 1179494	82602 1365510	254459	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	473359	18185 796100	39291 1130813	79356 1332975	233805	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	502539	19774 829012	41256 1160419	82219 1371801	242078	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	320999	13276 562634	29668 763717	56255 964101	131221	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	510131	20832 836230	42118 1145070	86376 1386927	249613	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	417231	20190 684421	40633 973066	80531 1259894	196696	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCBd 4	Ave	1006791	48954 1540730	99063 2007266	203166 2388392	513710	1000	50.0 1500	100 2000	200 2500	500
Indene	DCBd 4	Ave	1997418	80532 3167552	173239 4164438	355146 4946401	978373	2000	100 3000	200 4000	400 5000	1000
3 & 4 Methylphenol	DCBd 4	Ave	372958	19519 691115	40953 996303	72097 1298339	158468	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodi-n-propylamine	DCBd 4	Ave	474879	21946 721774	42239 936910	87602 1142983	235600	1000	50.0 1500	100 2000	200 2500	500
Acetophenone	DCBd 4	Ave	788138	36145 1243482	74973 1646977	151343 1986154	381041	1000	50.0 1500	100 2000	200 2500	500
Hexachloroethane	DCBd 4	Ave	206491	8319 336927	16442 466909	34209 559704	101825	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene	NPT	Ave	665884	29534 1039378	61315 1359312	127408 1642301	322664	1000	50.0 1500	100 2000	200 2500	500
Isophorone	NPT	Ave	1166381	49949 1795966	99201 2335200	214093 2855611	576980	1000	50.0 1500	100 2000	200 2500	500
2,4-Dimethylphenol	NPT	Ave	510149	20932 852825	43005 1148236	79802 1429324	201192	1000	50.0 1500	100 2000	200 2500	500
2-Nitrophenol	NPT	Ave	304603	11385 485396	23949 659155	52462 810601	141681	1000	50.0 1500	100 2000	200 2500	500
Benzoic acid	NPT	Lin1	557532	+++++ 937391	9334 1146894	34918 1512532	230182	2000	+++++ 3000	200 4000	400 5000	1000
Bis(2-chloroethoxy)methane	NPT	Ave	709215	32875 1105662	68766 1450068	141228 1775357	354912	1000	50.0 1500	100 2000	200 2500	500
2,4-Dichlorophenol	NPT	Ave	326446	13776 588623	29554 +++++	54885 +++++	125239	1000	50.0 1500	100 +++++	200 +++++	500
1,2,4-Trichlorobenzene	NPT	Ave	444582	19941 718145	39881 974366	81548 1212174	213225	1000	50.0 1500	100 2000	200 2500	500
Naphthalene	NPT	Ave	14965 1696814	77233 2713156	155804 3566487	326197 4328450	826482	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Chloroaniline	NPT	Ave	918818	28524 1450687	75572 1797101	158121 2180656	436534	1000	50.0 1500	100 2000	200 2500	500
2,6-Dichlorophenol	NPT	Ave	417440	16078 670509	32774 904913	66052 1125299	179747	1000	50.0 1500	100 2000	200 2500	500
Hexachlorobutadiene	NPT	Ave	228742	10355 378090	20415 507316	42140 629633	111179	1000	50.0 1500	100 2000	200 2500	500
Caprolactam	NPT	Ave	2723 341542	14407 491689	33812 761040	73381 928666	181365	20.0 2000	100 3000	200 4000	400 5000	1000
4-Chloro-3-methylphenol	NPT	Lin1	474689	11419 747870	25341 978293	57727 1211462	222461	1000	50.0 1500	100 2000	200 2500	500
2-Methylnaphthalene	NPT	Ave	8927 1145940	50006 1811463	101412 2439146	208330 3005211	551177	10.0 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8015 1071777	46353 1699012	97328 2272469	200023 2798318	519367	10.0 1000	50.0 1500	100 2000	200 2500	500
Hexachlorocyclopentadiene	ANT	Ave	 267087	9004 449998	19244 618255	42203 796191	120789	 1000	50.0 1500	100 2000	200 2500	500
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 442701	17245 707609	35254 979116	70965 1225266	194728	 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Trichlorophenol	ANT	Lin1	 288358	8040 470099	18054 626663	42960 785577	134394	 1000	50.0 1500	100 2000	200 2500	500
2,4,5-Trichlorophenol	ANT	Lin1	 296840	5174 480026	9700 637183	31189 790115	136781	 1000	50.0 1500	100 2000	200 2500	500
1,1'-Biphenyl	ANT	Ave	10279 1310616	58572 2090549	119328 2781125	245650 3485589	638055	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Chloronaphthalene	ANT	Ave	8206 976957	43135 1548810	84770 2077887	182248 2613558	473013	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Nitroaniline	ANT	Ave	 369231	12812 571865	29598 736792	67395 889955	181949	 1000	50.0 1500	100 2000	200 2500	500
Dimethyl phthalate	ANT	Ave	 1087216	49872 1698576	102084 2251425	209812 2781888	528082	 1000	50.0 1500	100 2000	200 2500	500
1,3-Dinitrobenzene	ANT	Ave	 180481	5193 283932	13607 371414	30718 462282	86721	 1000	50.0 1500	100 2000	200 2500	500
2,6-Dinitrotoluene	ANT	Ave	 251716	9210 391899	21085 518578	46359 645664	123178	 1000	50.0 1500	100 2000	200 2500	500
Acenaphthylene	ANT	Ave	9430 1437276	59197 2246988	127210 3017469	265742 3773774	702332	10.0 1000	50.0 1500	100 2000	200 2500	500
3-Nitroaniline	ANT	Ave	 259473	7592 363775	23680 460222	51446 553483	128089	 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrophenol	ANT	Lin1	 276555	+++++ 467518	12000 645719	34916 835534	123782	 2000	+++++ 3000	200 4000	400 5000	1000
4-Nitrophenol	ANT	Ave	 334182	9156 533695	24738 709197	52436 887577	150407	 2000	100 3000	200 4000	400 5000	1000
Acenaphthene	ANT	Ave	9197 1073706	46980 1704349	96819 2265989	197239 2798007	510074	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrotoluene	ANT	Ave	 310107	11492 493612	26961 647880	59108 801189	152757	 1000	50.0 1500	100 2000	200 2500	500
Dibenzofuran	ANT	Ave	11170 1358312	60199 2155632	127812 2876095	256579 3564062	663014	10.0 1000	50.0 1500	100 2000	200 2500	500
2,3,4,6-Tetrachlorophenol	ANT	Ave	 219797	7263 356786	17534 479460	39460 608727	106366	 1000	50.0 1500	100 2000	200 2500	500
Hexadecane	ANT	Ave	 876642	42982 1335975	89418 1714494	181720 2050984	445881	 1000	50.0 1500	100 2000	200 2500	500
Diethyl phthalate	ANT	Ave	 1145307	57892 1837953	108707 2378843	221848 2970344	561677	 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	513344	22301 822411	47344 1092319	93008 1404481	240419	1000	50.0 1500	100 2000	200 2500	500
4-Nitroaniline	ANT	Ave	241639	8761 356941	22976 436983	51243 507856	123991	1000	50.0 1500	100 2000	200 2500	500
Fluorene	ANT	Ave	8782 1152849	49982 1847110	103414 2475702	207332 3083349	543070	10.0 1000	50.0 1500	100 2000	200 2500	500
4,6-Dinitro-2-methylphenol	PHN	Lin1	336104	6570 579915	19062 795398	47667 1017165	148769	2000	100 3000	200 4000	400 5000	1000
Diphenylamine	PHN	Ave	813580	35563 1272261	73629 1720951	154366 2124260	390079	850	42.5 1275	85.0 1700	170 2125	425
N-Nitrosodiphenylamine	PHN	Ave	813580	35563 1272261	73629 1720951	154366 2124260	390079	1000	50.0 1500	100 2000	200 2500	500
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1370562	62653 2085499	130440 2701854	269922 3306867	689713	1000	50.0 1500	100 2000	200 2500	500
Azobenzene	PHN	Ave	1370400	62605 2085810	131300 2702034	270156 3306867	689538	1000	50.0 1500	100 2000	200 2500	500
4-Bromophenyl phenyl ether	PHN	Ave	287865	12121 458284	25085 623943	51488 785600	133757	1000	50.0 1500	100 2000	200 2500	500
Atrazine	PHN	Ave	4210 621198	24595 1037432	52099 +++++	106842 +++++	282978	20.0 2000	100 3000	200 +++++	400 +++++	1000
Hexachlorobenzene	PHN	Ave	2540 308443	12591 526430	26695 +++++	55442 +++++	143433	10.0 1000	50.0 1500	100 +++++	200 +++++	500
n-Octadecane	PHN	Ave	929500	39903 1416885	88054 1826254	182015 2203888	460276	1000	50.0 1500	100 2000	200 2500	500
Pentachlorophenol	PHN	Lin1	366159	+++++ 640114	22344 890402	56772 1156645	156527	2000	+++++ 3000	200 4000	400 5000	1000
Phenanthrene	PHN	Ave	14934 1485327	71250 2407892	141966 3202399	295121 3977939	735009	10.0 1000	50.0 1500	100 2000	200 2500	500
Anthracene	PHN	Ave	12410 1536293	69058 2484466	147312 3303014	299735 4146948	753301	10.0 1000	50.0 1500	100 2000	200 2500	500
Carbazole	PHN	Ave	1238291	61972 1952227	129395 2692273	245817 3281184	594733	1000	50.0 1500	100 2000	200 2500	500
Di-n-butyl phthalate	PHN	Ave	1870192	79781 2967691	161228 3823453	341147 4730635	886127	1000	50.0 1500	100 2000	200 2500	500
Fluoranthene	PHN	Ave	12506 1549384	65397 2488270	135807 3214894	273278 4018091	702875	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzidine	CRY	Lin1	1290909	17611 2027726	70472 3080396	154888 3790579	519100	2000	100 3000	200 4000	400 5000	1000
Pyrene	CRY	Ave	12737 1564939	65254 2438741	137834 3145561	275421 4004408	709307	10.0 1000	50.0 1500	100 2000	200 2500	500
Butyl benzyl phthalate	CRY	Ave	793755	29825 1267920	65654 1700895	135546 2141904	376113	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1098027	43210 1761242	86895 2373984	198365 2986008	506527	1000	50.0 1500	100 2000	200 2500	500
3,3'-Dichlorobenzidine	CRY	Ave	1035966	36291 1587378	87062 2229439	187757 2889205	504337	2000	100 3000	200 4000	400 5000	1000
Benzo[a]anthracene	CRY	Ave	12108 1456698	58204 2316128	124454 3120480	257927 3930374	676668	10.0 1000	50.0 1500	100 2000	200 2500	500
Chrysene	CRY	Ave	11597 1402621	60575 2221631	129500 2975436	262200 3785622	665927	10.0 1000	50.0 1500	100 2000	200 2500	500
Di-n-octyl phthalate	PRY	Ave	1801315	57061 2878600	133339 3958407	294759 5054693	806961	1000	50.0 1500	100 2000	200 2500	500
Benzo[b]fluoranthene	PRY	Ave	10408 1326207	54419 2179302	111406 2880484	235149 3776563	613880	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[k]fluoranthene	PRY	Ave	11416 1391665	58877 2165590	124417 3062653	250464 3748521	663631	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[a]pyrene	PRY	Ave	8852 1256071	49027 2020639	107886 2777245	224926 3526072	579018	10.0 1000	50.0 1500	100 2000	200 2500	500
Indeno[1,2,3-cd]pyrene	PRY	Ave	8991 1376424	50410 2191616	111968 3084056	241534 3957279	641596	10.0 1000	50.0 1500	100 2000	200 2500	500
Dibenz(a,h)anthracene	PRY	Ave	6587 1187845	42752 1912626	94633 2708358	205342 +++++	540798	10.0 1000	50.0 1500	100 2000	200 +++++	500
Benzo[g,h,i]perylene	PRY	Ave	7267 1092958	43955 1700466	97069 2364172	201974 2989053	526258	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorophenol (Surr)	DCBd 4	Ave	223487	7664 328620	15751 503894	33603 563993	104451	1000	50.0 1500	100 2000	200 2500	500
Phenol-d5 (Surr)	DCBd 4	Ave	424417	20185 644126	40420 859950	84432 1052238	200277	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene-d5 (Surr)	NPT	Ave	4787 665577	26829 1043530	58804 1365217	122809 1681848	324431	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorobiphenyl (Surr)	ANT	Ave	9106 1090004	48716 1734925	100457 2320000	206414 2914466	518552	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Tribromophenol (Surr)	ANT	Ave	131827	4438 205503	10534 280425	22575 349702	63046	1000	50.0 1500	100 2000	200 2500	500
Terphenyl-d14 (Surr)	CRY	Ave	9091 1042225	43968 1688026	88623 2300573	188468 2925018	499686	10.0 1000	50.0 1500	100 2000	200 2500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330024/11 Calibration Date: 06/05/2018 10:55

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80605011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2516		1.04	1.00	3.5	30.0
N-Nitrosodimethylamine	Ave	0.9471	0.9580		1.01	1.00	1.1	30.0
Pyridine	Ave	0.7036	0.7317		2.08	2.00	4.0	30.0
Benzaldehyde	Qua		1.232	0.0100	1.98	2.00	-1.2	30.0
Phenol	Ave	1.631	1.547	0.8000	0.949	1.00	-5.1	30.0
Aniline	Ave	2.855	2.801		0.981	1.00	-1.9	30.0
Bis(2-chloroethyl)ether	Ave	2.088	1.981	0.7000	0.949	1.00	-5.1	30.0
2-Chlorophenol	Ave	1.520	1.461	0.8000	0.961	1.00	-3.9	30.0
n-Decane	Ave	1.716	1.787		1.04	1.00	4.1	30.0
1,3-Dichlorobenzene	Ave	1.617	1.570		0.970	1.00	-3.0	30.0
1,4-Dichlorobenzene	Ave	1.691	1.655		0.978	1.00	-2.2	30.0
Benzyl alcohol	Ave	1.120	1.033		0.923	1.00	-7.7	30.0
1,2-Dichlorobenzene	Ave	1.729	1.684		0.974	1.00	-2.6	30.0
2-Methylphenol	Ave	1.524	1.369	0.7000	0.898	1.00	-10.2	30.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.206		0.903	1.00	-9.7	30.0
Indene	Ave	3.341	3.152		1.89	2.00	-5.6	30.0
3 & 4 Methylphenol	Ave	1.458	1.140		0.782	1.00	-21.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.577	0.5000	0.978	1.00	-2.2	30.0
Acetophenone	Ave	2.746	2.651	0.0100	0.966	1.00	-3.4	30.0
Hexachloroethane	Ave	0.6941	0.6853	0.3000	0.987	1.00	-1.3	30.0
Nitrobenzene	Ave	0.4254	0.4235	0.2000	0.995	1.00	-0.5	30.0
Isophorone	Ave	0.7295	0.7499	0.4000	1.03	1.00	2.8	30.0
2,4-Dimethylphenol	Ave	0.3171	0.3010	0.2000	0.949	1.00	-5.1	30.0
2-Nitrophenol	Ave	0.1879	0.1872	0.1000	0.996	1.00	-0.4	30.0
Benzoic acid	Lin1		0.1511		1.71	2.00	-14.3	30.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4495	0.3000	0.970	1.00	-3.0	30.0
2,4-Dichlorophenol	Ave	0.1997	0.1925*	0.2000	0.963	1.00	-3.7	30.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2773		0.959	1.00	-4.1	30.0
Naphthalene	Ave	1.103	1.077	0.7000	0.977	1.00	-2.3	30.0
4-Chloroaniline	Ave	0.5443	0.5866	0.0100	1.08	1.00	7.8	30.0
2,6-Dichlorophenol	Ave	0.2543	0.2577		1.01	1.00	1.3	30.0
Hexachlorobutadiene	Ave	0.1501	0.1506	0.0100	1.00	1.00	0.3	30.0
Caprolactam	Ave	0.1127	0.1046	0.0100	1.86	2.00	-7.2	30.0
4-Chloro-3-methylphenol	Lin1		0.3012	0.2000	0.988	1.00	-1.2	30.0
2-Methylnaphthalene	Ave	0.7257	0.7204	0.4000	0.993	1.00	-0.7	30.0
1-Methylnaphthalene	Ave	0.6792	0.6761		0.995	1.00	-0.5	30.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3625	0.0500	1.08	1.00	8.1	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5593	0.0100	1.01	1.00	0.8	30.0
2,4,6-Trichlorophenol	Lin1		0.3721	0.2000	0.944	1.00	-5.6	30.0
2,4,5-Trichlorophenol	Lin1		0.3824	0.2000	0.965	1.00	-3.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330024/11 Calibration Date: 06/05/2018 10:55

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80605011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.717	1.698	0.0100	0.989	1.00	-1.1	30.0
2-Chloronaphthalene	Ave	1.281	1.268	0.8000	0.990	1.00	-1.0	30.0
2-Nitroaniline	Ave	0.4538	0.4755	0.0100	1.05	1.00	4.8	30.0
Dimethyl phthalate	Ave	1.430	1.404	0.0100	0.982	1.00	-1.8	30.0
1,3-Dinitrobenzene	Ave	0.2171	0.2281		1.05	1.00	5.1	30.0
2,6-Dinitrotoluene	Ave	0.3167	0.3234		1.02	1.00	2.1	30.0
Acenaphthylene	Ave	1.818	2.014	0.9000	1.11	1.00	10.8	30.0
3-Nitroaniline	Ave	0.3089	0.3469	0.0100	1.12	1.00	12.3	30.0
2,4-Dinitrophenol	Lin1		0.1621	0.0100	1.66	2.00	-17.0	30.0
4-Nitrophenol	Ave	0.1985	0.2122		2.14	2.00	6.9	30.0
Acenaphthene	Ave	1.404	1.364	0.9000	0.971	1.00	-2.9	30.0
2,4-Dinitrotoluene	Ave	0.3967	0.3966	0.2000	1.00	1.00	-0.0	30.0
Dibenzofuran	Ave	1.791	1.755	0.8000	0.980	1.00	-2.0	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.2777	0.2876	0.0100	1.04	1.00	3.6	30.0
Hexadecane	Ave	1.168	1.161		0.994	1.00	-0.6	30.0
Diethyl phthalate	Ave	1.538	1.505	0.0100	0.978	1.00	-2.2	30.0
4-Chlorophenyl phenyl ether	Ave	0.6719	0.6588	0.4000	0.981	1.00	-1.9	30.0
4-Nitroaniline	Ave	0.3017	0.3189	0.0100	1.06	1.00	5.7	30.0
Fluorene	Ave	1.491	1.519	0.9000	1.02	1.00	1.9	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1361	0.0100	1.83	2.00	-8.4	30.0
Diphenylamine	Ave	0.7329	0.7396		0.858	0.850	0.9	30.0
N-Nitrosodiphenylamine	Ave	0.6229	0.6287	0.0100	1.01	1.00	0.9	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.047	1.078		1.03	1.00	2.9	30.0
Azobenzene	Ave	1.048	1.079		1.03	1.00	2.9	30.0
4-Bromophenyl phenyl ether	Ave	0.2189	0.2159	0.1000	0.986	1.00	-1.4	30.0
Atrazine	Ave	0.2155	0.2360	0.0100	2.19	2.00	9.5	30.0
Hexachlorobenzene	Ave	0.2238	0.2388	0.1000	1.07	1.00	6.7	30.0
n-Octadecane	Ave	0.7013	0.7257		1.03	1.00	3.5	30.0
Pentachlorophenol	Lin1		0.1460	0.0500	1.78	2.00	-11.1	30.0
Phenanthrene	Ave	1.187	1.147	0.7000	0.966	1.00	-3.4	30.0
Anthracene	Ave	1.189	1.173	0.7000	0.987	1.00	-1.3	30.0
Carbazole	Ave	0.9915	0.9379	0.0100	0.946	1.00	-5.4	30.0
Di-n-butyl phthalate	Ave	1.402	1.452	0.0100	1.04	1.00	3.6	30.0
Fluoranthene	Ave	1.147	1.179	0.6000	1.03	1.00	2.8	30.0
Benzidine	Lin1		0.4216		1.50	2.00	-25.2	30.0
Pyrene	Ave	1.269	1.276	0.6000	1.01	1.00	0.6	30.0
Butyl benzyl phthalate	Ave	0.6410	0.6470	0.0100	1.01	1.00	0.9	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8922	0.8745	0.0100	0.980	1.00	-2.0	30.0
3,3'-Dichlorobenzidine	Ave	0.4204	0.4157	0.0100	1.98	2.00	-1.1	30.0
Benzo[a]anthracene	Ave	1.198	1.165	0.8000	0.972	1.00	-2.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-330024/11 Calibration Date: 06/05/2018 10:55

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80605011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.179	1.157	0.7000	0.981	1.00	-1.9	30.0
Di-n-octyl phthalate	Ave	1.594	1.652	0.0100	1.04	1.00	3.6	30.0
Benzo[b]fluoranthene	Ave	1.235	1.239	0.7000	1.00	1.00	0.3	30.0
Benzo[k]fluoranthene	Ave	1.306	1.289	0.7000	0.987	1.00	-1.3	30.0
Benzo[a]pyrene	Ave	1.152	1.169	0.7000	1.01	1.00	1.4	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.243	1.213	0.5000	0.976	1.00	-2.4	30.0
Dibenz(a,h)anthracene	Ave	1.025	1.070	0.4000	1.04	1.00	4.4	30.0
Benzo[g,h,i]perylene	Ave	1.002	0.9575	0.5000	0.955	1.00	-4.5	30.0
2-Fluorophenol (Surr)	Ave	0.6967	0.7426		1.07	1.00	6.6	30.0
Phenol-d5 (Surr)	Ave	1.476	1.456		0.987	1.00	-1.3	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4120	0.4425		1.07	1.00	7.4	30.0
2-Fluorobiphenyl (Surr)	Ave	1.439	1.491		1.04	1.00	3.6	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1632	0.1764		1.08	1.00	8.1	30.0
Terphenyl-d14 (Surr)	Ave	0.8801	0.9115		1.04	1.00	3.6	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: 80606001.D DFTPP Injection Date: 06/06/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:55

Analysis Batch No.: 330212

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	50.3	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	45.2	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.8	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	10.7	
442	40.0 - 110.0% of mass 198	72.2	
443	15.0 - 24.0% of mass 442	13.7	(19.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-330212/2	80606002.D	06/06/2018	07:14
	STD6 240-330212/3	80606003.D	06/06/2018	07:40
	MB 240-329844/6-A	80606019.D	06/06/2018	10:56
	LCS 240-329844/7-A	80606020.D	06/06/2018	11:20
DMW-7I-053118	240-96479-2	80606012.D	06/06/2018	12:09
DMW-7D-053118	240-96479-3	80606013.D	06/06/2018	12:34
MSA-MW-5-053118	240-96479-5	80606015.D	06/06/2018	13:23

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330212/2 Calibration Date: 06/06/2018 07:14

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80606002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2495		1.03	1.00	2.7	20.0
N-Nitrosodimethylamine	Ave	0.9471	0.8829		0.932	1.00	-6.8	20.0
Pyridine	Ave	0.7036	0.6989		1.99	2.00	-0.7	20.0
Benzaldehyde	Qua		1.228	0.0100	1.97	2.00	-1.6	20.0
Phenol	Ave	1.631	1.388	0.8000	0.851	1.00	-14.9	20.0
Aniline	Ave	2.855	2.973		1.04	1.00	4.1	20.0
Bis(2-chloroethyl)ether	Ave	2.088	2.138	0.7000	1.02	1.00	2.4	20.0
2-Chlorophenol	Ave	1.520	1.473	0.8000	0.969	1.00	-3.1	20.0
n-Decane	Ave	1.716	1.620		0.944	1.00	-5.6	20.0
1,3-Dichlorobenzene	Ave	1.617	1.558		0.963	1.00	-3.7	20.0
1,4-Dichlorobenzene	Ave	1.691	1.636		0.968	1.00	-3.2	20.0
Benzyl alcohol	Ave	1.120	1.230		1.10	1.00	9.9	20.0
1,2-Dichlorobenzene	Ave	1.729	1.725		0.998	1.00	-0.2	20.0
2-Methylphenol	Ave	1.524	1.464	0.7000	0.961	1.00	-3.9	20.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.572		1.01	1.00	0.6	20.0
Indene	Ave	3.341	3.425		2.05	2.00	2.5	20.0
3 & 4 Methylphenol	Ave	1.458	1.562		1.07	1.00	7.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.718	0.5000	1.07	1.00	6.6	20.0
Acetophenone	Ave	2.746	2.944	0.0100	1.07	1.00	7.2	20.0
Hexachloroethane	Ave	0.6941	0.6852	0.3000	0.987	1.00	-1.3	20.0
Nitrobenzene	Ave	0.4254	0.4268	0.2000	1.00	1.00	0.3	20.0
Isophorone	Ave	0.7295	0.7663	0.4000	1.05	1.00	5.0	20.0
2,4-Dimethylphenol	Ave	0.3171	0.3456	0.2000	1.09	1.00	9.0	20.0
2-Nitrophenol	Ave	0.1879	0.2016	0.1000	1.07	1.00	7.3	20.0
Benzoic acid	Lin1		0.1901		2.10	2.00	5.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4638	0.3000	1.00	1.00	0.0	20.0
2,4-Dichlorophenol	Ave	0.1997	0.2389	0.2000	1.20	1.00	19.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2774		0.959	1.00	-4.1	20.0
Naphthalene	Ave	1.103	1.115	0.7000	1.01	1.00	1.2	20.0
4-Chloroaniline	Ave	0.5443	0.6021	0.0100	1.11	1.00	10.6	20.0
2,6-Dichlorophenol	Ave	0.2543	0.2750		1.08	1.00	8.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1510	0.0100	1.01	1.00	0.6	20.0
Caprolactam	Ave	0.1127	0.1188	0.0100	2.11	2.00	5.4	20.0
4-Chloro-3-methylphenol	Lin1		0.3130	0.2000	1.03	1.00	2.5	20.0
2-Methylnaphthalene	Ave	0.7257	0.7452	0.4000	1.03	1.00	2.7	20.0
1-Methylnaphthalene	Ave	0.6792	0.6990		1.03	1.00	2.9	20.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3616	0.0500	1.08	1.00	7.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5823	0.0100	1.05	1.00	5.0	20.0
2,4,6-Trichlorophenol	Lin1		0.3839	0.2000	0.973	1.00	-2.7	20.0
2,4,5-Trichlorophenol	Lin1		0.3953	0.2000	0.995	1.00	-0.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330212/2 Calibration Date: 06/06/2018 07:14

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80606002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.717	1.724	0.0100	1.00	1.00	0.4	20.0
2-Chloronaphthalene	Ave	1.281	1.280	0.8000	1.00	1.00	-0.0	20.0
2-Nitroaniline	Ave	0.4538	0.4722	0.0100	1.04	1.00	4.1	20.0
Dimethyl phthalate	Ave	1.430	1.416	0.0100	0.990	1.00	-1.0	20.0
1,3-Dinitrobenzene	Ave	0.2171	0.2367		1.09	1.00	9.0	20.0
2,6-Dinitrotoluene	Ave	0.3167	0.3275		1.03	1.00	3.4	20.0
Acenaphthylene	Ave	1.818	1.899	0.9000	1.04	1.00	4.5	20.0
3-Nitroaniline	Ave	0.3089	0.3284	0.0100	1.06	1.00	6.3	20.0
2,4-Dinitrophenol	Lin1		0.1856	0.0100	1.88	2.00	-6.1	20.0
4-Nitrophenol	Ave	0.1985	0.2145		2.16	2.00	8.0	20.0
Acenaphthene	Ave	1.404	1.395	0.9000	0.994	1.00	-0.6	20.0
2,4-Dinitrotoluene	Ave	0.3967	0.4149	0.2000	1.05	1.00	4.6	20.0
Dibenzofuran	Ave	1.791	1.811	0.8000	1.01	1.00	1.1	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2777	0.2980	0.0100	1.07	1.00	7.3	20.0
Hexadecane	Ave	1.168	1.155		0.989	1.00	-1.1	20.0
Diethyl phthalate	Ave	1.538	1.513	0.0100	0.983	1.00	-1.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.6719	0.6710	0.4000	0.999	1.00	-0.1	20.0
4-Nitroaniline	Ave	0.3017	0.3224	0.0100	1.07	1.00	6.8	20.0
Fluorene	Ave	1.491	1.526	0.9000	1.02	1.00	2.4	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1386	0.0100	1.86	2.00	-6.8	20.0
Diphenylamine	Ave	0.7329	0.7650		0.887	0.850	4.4	20.0
N-Nitrosodiphenylamine	Ave	0.6229	0.6503	0.0100	1.04	1.00	4.4	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.047	1.072		1.02	1.00	2.3	20.0
Azobenzene	Ave	1.048	1.072		1.02	1.00	2.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2189	0.2285	0.1000	1.04	1.00	4.4	20.0
Atrazine	Ave	0.2155	0.2532	0.0100	2.35	2.00	17.5	20.0
Hexachlorobenzene	Ave	0.2238	0.2505	0.1000	1.12	1.00	11.9	20.0
n-Octadecane	Ave	0.7013	0.7252		1.03	1.00	3.4	20.0
Pentachlorophenol	Lin1		0.1507	0.0500	1.83	2.00	-8.5	20.0
Phenanthrene	Ave	1.187	1.173	0.7000	0.989	1.00	-1.1	20.0
Anthracene	Ave	1.189	1.228	0.7000	1.03	1.00	3.3	20.0
Carbazole	Ave	0.9915	1.072	0.0100	1.08	1.00	8.1	20.0
Di-n-butyl phthalate	Ave	1.402	1.496	0.0100	1.07	1.00	6.7	20.0
Fluoranthene	Ave	1.147	1.238	0.6000	1.08	1.00	8.0	20.0
Benzidine	Lin1		0.6120		2.12	2.00	6.2	20.0
Pyrene	Ave	1.269	1.325	0.6000	1.04	1.00	4.5	20.0
Butyl benzyl phthalate	Ave	0.6410	0.6680	0.0100	1.04	1.00	4.2	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8922	0.9339	0.0100	1.05	1.00	4.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4204	0.4614	0.0100	2.19	2.00	9.7	20.0
Benzo[a]anthracene	Ave	1.198	1.227	0.8000	1.02	1.00	2.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330212/2 Calibration Date: 06/06/2018 07:14

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80606002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.179	1.181	0.7000	1.00	1.00	0.2	20.0
Di-n-octyl phthalate	Ave	1.594	1.690	0.0100	1.06	1.00	6.0	20.0
Benzo[b]fluoranthene	Ave	1.235	1.238	0.7000	1.00	1.00	0.2	20.0
Benzo[k]fluoranthene	Ave	1.306	1.293	0.7000	0.990	1.00	-1.0	20.0
Benzo[a]pyrene	Ave	1.152	1.192	0.7000	1.03	1.00	3.4	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.243	1.358	0.5000	1.09	1.00	9.2	20.0
Dibenz(a,h)anthracene	Ave	1.025	1.166	0.4000	1.14	1.00	13.7	20.0
Benzo[g,h,i]perylene	Ave	1.002	1.084	0.5000	1.08	1.00	8.2	20.0
2-Fluorophenol (Surr)	Ave	0.6967	0.7137		1.02	1.00	2.4	20.0
Phenol-d5 (Surr)	Ave	1.476	1.268		0.859	1.00	-14.1	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4120	0.4265		1.04	1.00	3.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.439	1.437		0.998	1.00	-0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1632	0.1723		1.06	1.00	5.6	20.0
Terphenyl-d14 (Surr)	Ave	0.8801	0.8656		0.984	1.00	-1.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab File ID: 80607001.D DFTPP Injection Date: 06/07/2018

Instrument ID: A4AG2 DFTPP Injection Time: 08:01

Analysis Batch No.: 330413

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	45.0	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	29.0	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	75.1	
443	15.0 - 24.0% of mass 442	14.4	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-330413/2	80607002.D	06/07/2018	08:18
DMW-7S-053118	240-96479-4	80607006.D	06/07/2018	09:56

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330413/2 Calibration Date: 06/07/2018 08:18

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80607002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2787		1.15	1.00	14.7	20.0
N-Nitrosodimethylamine	Ave	0.9471	0.9829		1.04	1.00	3.8	20.0
Pyridine	Ave	0.7036	0.8278		2.35	2.00	17.6	20.0
Benzaldehyde	Qua		1.235	0.0100	1.98	2.00	-0.8	20.0
Phenol	Ave	1.631	1.336	0.8000	0.819	1.00	-18.1	20.0
Aniline	Ave	2.855	2.466		0.864	1.00	-13.6	20.0
Bis(2-chloroethyl)ether	Ave	2.088	2.078	0.7000	0.995	1.00	-0.5	20.0
2-Chlorophenol	Ave	1.520	1.451	0.8000	0.955	1.00	-4.5	20.0
n-Decane	Ave	1.716	1.771		1.03	1.00	3.2	20.0
1,3-Dichlorobenzene	Ave	1.617	1.629		1.01	1.00	0.7	20.0
1,4-Dichlorobenzene	Ave	1.691	1.684		0.996	1.00	-0.4	20.0
Benzyl alcohol	Ave	1.120	1.013		0.905	1.00	-9.5	20.0
1,2-Dichlorobenzene	Ave	1.729	1.687		0.976	1.00	-2.4	20.0
2-Methylphenol	Ave	1.524	1.189	0.7000	0.780	1.00	-22.0*	20.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.297		0.929	1.00	-7.1	20.0
Indene	Ave	3.341	3.256		1.95	2.00	-2.5	20.0
3 & 4 Methylphenol	Ave	1.458	1.161		0.796	1.00	-20.4*	20.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.528	0.5000	0.948	1.00	-5.2	20.0
Acetophenone	Ave	2.746	2.718	0.0100	0.990	1.00	-1.0	20.0
Hexachloroethane	Ave	0.6941	0.6817	0.3000	0.982	1.00	-1.8	20.0
Nitrobenzene	Ave	0.4254	0.4235	0.2000	0.996	1.00	-0.4	20.0
Isophorone	Ave	0.7295	0.7383	0.4000	1.01	1.00	1.2	20.0
2,4-Dimethylphenol	Ave	0.3171	0.3129	0.2000	0.987	1.00	-1.3	20.0
2-Nitrophenol	Ave	0.1879	0.2005	0.1000	1.07	1.00	6.7	20.0
Benzoic acid	Lin1		0.1892		2.09	2.00	4.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4523	0.3000	0.976	1.00	-2.4	20.0
2,4-Dichlorophenol	Ave	0.1997	0.2049	0.2000	1.03	1.00	2.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2818		0.974	1.00	-2.6	20.0
Naphthalene	Ave	1.103	1.102	0.7000	1.00	1.00	-0.0	20.0
4-Chloroaniline	Ave	0.5443	0.5908	0.0100	1.09	1.00	8.5	20.0
2,6-Dichlorophenol	Ave	0.2543	0.2668		1.05	1.00	4.9	20.0
Hexachlorobutadiene	Ave	0.1501	0.1514	0.0100	1.01	1.00	0.8	20.0
Caprolactam	Ave	0.1127	0.1183	0.0100	2.10	2.00	4.9	20.0
4-Chloro-3-methylphenol	Lin1		0.3015	0.2000	0.989	1.00	-1.1	20.0
2-Methylnaphthalene	Ave	0.7257	0.7330	0.4000	1.01	1.00	1.0	20.0
1-Methylnaphthalene	Ave	0.6792	0.6905		1.02	1.00	1.7	20.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3649	0.0500	1.09	1.00	8.8	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5838	0.0100	1.05	1.00	5.3	20.0
2,4,6-Trichlorophenol	Lin1		0.3956	0.2000	1.00	1.00	0.1	20.0
2,4,5-Trichlorophenol	Lin1		0.3977	0.2000	1.00	1.00	0.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330413/2 Calibration Date: 06/07/2018 08:18

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80607002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.717	1.724	0.0100	1.00	1.00	0.4	20.0
2-Chloronaphthalene	Ave	1.281	1.320	0.8000	1.03	1.00	3.1	20.0
2-Nitroaniline	Ave	0.4538	0.4815	0.0100	1.06	1.00	6.1	20.0
Dimethyl phthalate	Ave	1.430	1.433	0.0100	1.00	1.00	0.2	20.0
1,3-Dinitrobenzene	Ave	0.2171	0.2457		1.13	1.00	13.2	20.0
2,6-Dinitrotoluene	Ave	0.3167	0.3356		1.06	1.00	6.0	20.0
Acenaphthylene	Ave	1.818	1.925	0.9000	1.06	1.00	5.9	20.0
3-Nitroaniline	Ave	0.3089	0.3561	0.0100	1.15	1.00	15.3	20.0
2,4-Dinitrophenol	Lin1		0.1980	0.0100	1.99	2.00	-0.3	20.0
4-Nitrophenol	Ave	0.1985	0.2133		2.15	2.00	7.4	20.0
Acenaphthene	Ave	1.404	1.401	0.9000	0.998	1.00	-0.2	20.0
2,4-Dinitrotoluene	Ave	0.3967	0.4193	0.2000	1.06	1.00	5.7	20.0
Dibenzofuran	Ave	1.791	1.813	0.8000	1.01	1.00	1.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2777	0.2952	0.0100	1.06	1.00	6.3	20.0
Hexadecane	Ave	1.168	1.163		0.995	1.00	-0.5	20.0
Diethyl phthalate	Ave	1.538	1.506	0.0100	0.979	1.00	-2.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.6719	0.6893	0.4000	1.03	1.00	2.6	20.0
4-Nitroaniline	Ave	0.3017	0.3506	0.0100	1.16	1.00	16.2	20.0
Fluorene	Ave	1.491	1.536	0.9000	1.03	1.00	3.0	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1402	0.0100	1.88	2.00	-5.8	20.0
Diphenylamine	Ave	0.7329	0.7677		0.890	0.850	4.8	20.0
N-Nitrosodiphenylamine	Ave	0.6229	0.6526	0.0100	1.05	1.00	4.8	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.047	1.061		1.01	1.00	1.3	20.0
Azobenzene	Ave	1.048	1.061		1.01	1.00	1.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2189	0.2319	0.1000	1.06	1.00	5.9	20.0
Atrazine	Ave	0.2155	0.2403	0.0100	2.23	2.00	11.5	20.0
Hexachlorobenzene	Ave	0.2238	0.2539	0.1000	1.13	1.00	13.4	20.0
n-Octadecane	Ave	0.7013	0.7178		1.02	1.00	2.3	20.0
Pentachlorophenol	Lin1		0.1462	0.0500	1.78	2.00	-11.0	20.0
Phenanthrene	Ave	1.187	1.167	0.7000	0.984	1.00	-1.6	20.0
Anthracene	Ave	1.189	1.216	0.7000	1.02	1.00	2.3	20.0
Carbazole	Ave	0.9915	1.043	0.0100	1.05	1.00	5.2	20.0
Di-n-butyl phthalate	Ave	1.402	1.484	0.0100	1.06	1.00	5.8	20.0
Fluoranthene	Ave	1.147	1.211	0.6000	1.06	1.00	5.6	20.0
Benzidine	Lin1		0.5516		1.92	2.00	-3.8	20.0
Pyrene	Ave	1.269	1.218	0.6000	0.960	1.00	-4.0	20.0
Butyl benzyl phthalate	Ave	0.6410	0.6457	0.0100	1.01	1.00	0.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8922	0.9101	0.0100	1.02	1.00	2.0	20.0
3,3'-Dichlorobenzidine	Ave	0.4204	0.4442	0.0100	2.11	2.00	5.6	20.0
Benzo[a]anthracene	Ave	1.198	1.187	0.8000	0.991	1.00	-0.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330413/2 Calibration Date: 06/07/2018 08:18

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80607002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.179	1.126	0.7000	0.955	1.00	-4.5	20.0
Di-n-octyl phthalate	Ave	1.594	1.612	0.0100	1.01	1.00	1.1	20.0
Benzo[b]fluoranthene	Ave	1.235	1.209	0.7000	0.979	1.00	-2.1	20.0
Benzo[k]fluoranthene	Ave	1.306	1.217	0.7000	0.932	1.00	-6.8	20.0
Benzo[a]pyrene	Ave	1.152	1.143	0.7000	0.992	1.00	-0.8	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.243	1.314	0.5000	1.06	1.00	5.7	20.0
Dibenz(a,h)anthracene	Ave	1.025	1.126	0.4000	1.10	1.00	9.8	20.0
Benzo[g,h,i]perylene	Ave	1.002	1.062	0.5000	1.06	1.00	6.0	20.0
2-Fluorophenol (Surr)	Ave	0.6967	0.8108		1.16	1.00	16.4	20.0
Phenol-d5 (Surr)	Ave	1.476	1.217		0.825	1.00	-17.5	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4120	0.4243		1.03	1.00	3.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.439	1.447		1.01	1.00	0.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1632	0.1742		1.07	1.00	6.7	20.0
Terphenyl-d14 (Surr)	Ave	0.8801	0.8309		0.944	1.00	-5.6	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330024/5 Date Analyzed: 06/05/2018 08:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80605005.D Heated Purge: (Y/N) N

Calibration ID: 45481

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		118988	6.84	622548	7.91	304450	9.41
UPPER LIMIT		237976	7.34	1245096	8.41	608900	9.91
LOWER LIMIT		59494	6.34	311274	7.41	152225	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330024/11		120047	6.84	627864	7.91	308528	9.41
STD6 240-330212/2 CCVIS		106434	6.84	598525	7.91	299304	9.41
STD6 240-330413/2 CCVIS		110000	6.82	570985	7.89	277037	9.39

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330024/5 Date Analyzed: 06/05/2018 08:27

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80605005.D Heated Purge: (Y/N) N

Calibration ID: 45481

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		499779	10.69	479970	13.66	418758	16.03
UPPER LIMIT		999558	11.19	959940	14.16	837516	16.53
LOWER LIMIT		249890	10.19	239985	13.16	209379	15.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-330024/11		517210	10.69	486260	13.66	409600	16.03
STD6 240-330212/2 CCVIS		493480	10.69	467111	13.65	436876	16.02
STD6 240-330413/2 CCVIS		463354	10.68	464601	13.64	441656	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330212/2 Date Analyzed: 06/06/2018 07:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80606002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		106434	6.84	598525	7.91	299304	9.41
UPPER LIMIT		212868	7.34	1197050	8.41	598608	9.91
LOWER LIMIT		53217	6.34	299263	7.41	149652	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-330212/3 CCV		87904	6.84	555980	7.91	283959	9.41
MB 240-329844/6-A		91030	6.84	573292	7.91	278785	9.40
LCS 240-329844/7-A		95741	6.84	547212	7.91	273439	9.40
240-96479-2	DMW-7I-053118	90092	6.84	535941	7.91	266946	9.40
240-96479-3	DMW-7D-053118	89556	6.84	543486	7.91	248857	9.40
240-96479-5	MSA-MW-5-053118	74106	6.84	498106	7.91	265562	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330212/2 Date Analyzed: 06/06/2018 07:14

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80606002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		493480	10.69	467111	13.65	436876	16.02
UPPER LIMIT		986960	11.19	934222	14.15	873752	16.52
LOWER LIMIT		246740	10.19	233556	13.15	218438	15.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-330212/3 CCV		492184	10.69	412638	13.65	387727	16.02
MB 240-329844/6-A		565180	10.69	450490	13.64	432435	16.02
LCS 240-329844/7-A		459836	10.69	439989	13.65	397036	16.02
240-96479-2	DMW-7I-053118	543388	10.69	478926	13.65	465226	16.02
240-96479-3	DMW-7D-053118	534851	10.69	443100	13.64	433223	16.02
240-96479-5	MSA-MW-5-053118	527577	10.69	450675	13.64	427839	16.02

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330413/2 Date Analyzed: 06/07/2018 08:18

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80607002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		110000	6.82	570985	7.89	277037	9.39
UPPER LIMIT		220000	7.32	1141970	8.39	554074	9.89
LOWER LIMIT		55000	6.32	285493	7.39	138519	8.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96479-4	DMW-7S-053118	99230	6.82	571267	7.89	284311	9.39

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD6 240-330413/2 Date Analyzed: 06/07/2018 08:18

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80607002.D Heated Purge: (Y/N) N

Calibration ID: 45484

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		463354	10.68	464601	13.64	441656	16.01
UPPER LIMIT		926708	11.18	929202	14.14	883312	16.51
LOWER LIMIT		231677	10.18	232301	13.14	220828	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-96479-4	DMW-7S-053118	579072	10.68	506173	13.63	480704	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

Initial Calibration: 6/5/2018

IS AREA	COMPOUND OF INTEREST AREA	IS AMOUNT PPB	COMPOUND AMOUNT PPB	RRF
95580	NA	400	NA	NA
92246	3516	400	50	0.3049
98124	6542	400	100	0.2667
99553	11782	400	200	0.2367
116128	30840	400	500	0.2125
118988	68422	400	1000	0.2300
129148	112847	400	1500	0.2330
136127	154674	400	2000	0.2272
128532	187572	400	2500	0.2335

AVERAGE RRF 0.2431

%RSD 12.0198

SAMPLE CALC **SAMPLE ID** **DMW-7S-053118**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
99230	2.5	67630	400	5	0.2431	53.92
		Amt Injected (uL)		**VOLUME OF SAMPLE (mL)**		
		5		260		

SAMPLE CALC **SAMPLE ID** **LCS**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
95741	1	41663	400	5	0.2431	716.13
		Amt Injected (uL)		**VOLUME OF SAMPLE (mL)**		14.32250371
		5		250		

CCV RRF 6/06/18 @ 07:14

IS AREA	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	COMPOUND AMOUNT PPB	RRF
106434	66398	400	1000	0.2495

% DIFFERENCE CCV
-2.662298236

SAMPLE CALC **SAMPLE ID** **SURROGATE NITROBENZENE-D5**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB
571267	2.5	253836	400	1000	0.4120	431.40
		Amt Injected (ul)		**VOLUME OF SAMPLE(ML)**		
		2.5		1000		

		Dilution Factor	Amount Added
SURROGATE %R	67.41	2.5	1600

LCS %R	SPIKE AMOUNT (PPB)	LCS CONCENTRATION
44.76	32	14.32

TUNE % ABDUNDANCE	RAW ABUNDANCE m/z 198	RAW ABUNDANCE m/z 127	TUNE ON 6/05/18@06:56
56.02	807104	452160	

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-330024/10	80605010.D
Level 2	STD2 240-330024/9	80605009.D
Level 3	STD3 240-330024/8	80605008.D
Level 4	STD4 240-330024/7	80605007.D
Level 5	STD5 240-330024/6	80605006.D
Level 6	STD6 240-330024/5	80605005.D
Level 7	STD7 240-330024/4	80605004.D
Level 8	STD8 240-330024/3	80605003.D
Level 9	STD9 240-330024/2	80605002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2300	0.3049 0.2330	0.2667 0.2272	0.2367 0.2335	0.2125	Ave		0.2431	✓			12.0	✓	20.0			
N-Nitrosodimethylamine	0.9564	0.8551 1.0177	0.8513 1.0235	0.8483 1.0649	0.9599	Ave		0.9471				9.1		20.0			
Pyridine	0.6888 0.6969	0.6957 0.7395	0.6822 0.7900	0.6290 0.7759	0.6342	Ave		0.7036				8.0		20.0			
Benzaldehyde	+++++ 1.2335	1.7208 1.0785	1.7153 0.9292	1.7443 +++++	1.4428	Qua	61.042	1.5133	-0.000150		0.0100				1.0000		0.9900
Phenol	1.5638	1.8833 1.4513	1.9101 1.3631	1.8912 1.4361	1.5502	Ave		1.6311			0.8000	13.9		20.0			
Aniline	2.8290	2.7390 2.7274	3.0750 2.6112	3.2696 2.7277	2.8594	Ave		2.8548				7.6		20.0			
Bis(2-chloroethyl)ether	2.0280	2.2913 1.9737	2.2688 1.8819	2.2296 2.0009	2.0283	Ave		2.0878			0.7000	7.3		20.0			
2-Chlorophenol	1.5474	1.5429 1.4534	1.5017 1.4612	1.6189 1.5155	1.5222	Ave		1.5204			0.8000	3.5		20.0			
n-Decane	1.7060	1.7465 1.7523	1.6794 1.7329	1.6595 1.6998	1.7530	Ave		1.7162				2.1		20.0			
1,3-Dichlorobenzene	1.5913	1.5771 1.6438	1.6017 1.6614	1.5942 1.6593	1.6107	Ave		1.6174				2.0		20.0			
1,4-Dichlorobenzene	1.6894	1.7149 1.7118	1.6818 1.7049	1.6518 1.7077	1.6677	Ave		1.6912				1.3		20.0			
Benzyl alcohol	1.0791	1.1514 1.1617	1.2094 1.1221	1.1302 1.2001	0.9040	Ave		1.1197				8.6		20.0			
1,2-Dichlorobenzene	1.7149	1.8066 1.7267	1.7169 1.6824	1.7353 1.7265	1.7196	Ave		1.7286				2.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 330024

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/05/2018 07:13 Calibration End Date: 06/05/2018 10:30 Calibration ID: 45481

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0386 1.2401	1.0070 1.3127	1.0311 1.2703	1.0243 1.2844	1.1117	Ave		1.1467			0.6000	11.2		20.0			
Benzidine	 0.5379	0.1600 0.5472	0.3151 0.6271	0.3390 0.6222	0.4585	Lin1	-62.64	0.6058							0.9930		0.9900
Pyrene	1.3247 1.3042	1.1858 1.3162	1.2325 1.2806	1.2058 1.3145	1.2530	Ave		1.2686			0.6000	4.1		20.0			
Butyl benzyl phthalate	 0.6615	0.5420 0.6843	0.5871 0.6925	0.5934 0.7031	0.6644	Ave		0.6410			0.0100	9.2		20.0			
Bis(2-ethylhexyl) phthalate	 0.9151	0.7852 0.9506	0.7770 0.9665	0.8684 0.9802	0.8948	Ave		0.8922			0.0100	8.7		20.0			
3,3'-Dichlorobenzidine	 0.4317	0.3297 0.4284	0.3892 0.4538	0.4110 0.4742	0.4455	Ave		0.4204			0.0100	10.7		20.0			
Benzo[a]anthracene	1.2593 1.2140	1.0577 1.2501	1.1128 1.2704	1.1292 1.2902	1.1954	Ave		1.1977			0.8000	6.7		20.0			
Chrysene	1.2062 1.1689	1.1008 1.1991	1.1579 1.2114	1.1479 1.2427	1.1764	Ave		1.1790			0.7000	3.5		20.0			
Di-n-octyl phthalate	 1.7206	1.1547 1.8002	1.3086 1.8108	1.4580 1.8931	1.6042	Ave		1.5938			0.0100	16.6		20.0			
Benzo[b]fluoranthene	1.1793 1.2668	1.1013 1.3629	1.0933 1.3177	1.1632 1.4144	1.2204	Ave		1.2355			0.7000	9.2		20.0			
Benzo[k]fluoranthene	1.2935 1.3293	1.1915 1.3543	1.2210 1.4010	1.2389 1.4039	1.3193	Ave		1.3059			0.7000	5.8		20.0			
Benzo[a]pyrene	1.0030 1.1998	0.9922 1.2636	1.0588 1.2704	1.1126 1.3206	1.1511	Ave		1.1525			0.7000	10.4		20.0			
Indeno[1,2,3-cd]pyrene	1.0187 1.3148	1.0202 1.3706	1.0988 1.4108	1.1947 1.4821	1.2755	Ave		1.2429			0.5000	13.7		20.0			
Dibenz(a,h)anthracene	0.7463 1.1346	0.8652 1.1961	0.9287 1.2389	1.0157 +++++	1.0751	Ave		1.0251			0.4000	16.6		20.0			
Benzo[g,h,i]perylene	0.8234 1.0440	0.8895 1.0634	0.9526 1.0815	0.9991 1.1195	1.0462	Ave		1.0021			0.5000	9.6		20.0			
2-Fluorophenol (Surr)	 0.7513	0.6647 0.6785	0.6421 0.7403	0.6751 0.7021	0.7196	Ave		0.6967				5.5		20.0			
Phenol-d5 (Surr)	 1.4268	1.7505 1.3300	1.6477 1.2635	1.6962 1.3099	1.3797	Ave		1.4755				13.0		20.0			
Nitrobenzene-d5 (Surr)	0.3583 0.4276	0.3704 0.4358	0.3967 0.4314	0.4135 0.4374	0.4366	Ave		0.4120				7.3		20.0			
2-Fluorobiphenyl (Surr)	1.4637 1.4321	1.3734 1.4870	1.3706 1.4909	1.3926 1.5364	1.4042	Ave		1.4390				4.1		20.0			
2,4,6-Tribromophenol (Surr)	 0.1732	0.1251 0.1761	0.1437 0.1802	0.1523 0.1843	0.1707	Ave		0.1632				12.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605002.D
Lims ID: std9 l1lvi
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 05-Jun-2018 07:13:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-002
Misc. Info.: STD9 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:13 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 07:37:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	128532	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	615209	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	303519	400.0	400.0	
* 4 Phenanthrene-d10	188	10.698	10.698	0.000	98	500552	400.0	400.0	
* 5 Chrysene-d12	240	13.663	13.663	0.000	99	487413	400.0	400.0	
* 6 Perylene-d12	264	16.039	16.039	0.000	97	427200	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.763	0.000	95	563993	2500.0	2519.3	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	1052238	2500.0	2219.3	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	93	1681848	2500.0	2654.4	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	100	2914466	2500.0	2669.2	
$ 11 2,4,6-Tribromophenol	330	10.086	10.086	0.000	94	349702	2500.0	2823.6	
$ 12 Terphenyl-d14	244	12.204	12.204	0.000	100	2925018	2500.0	2727.4	
26 1,4-Dioxane	88	4.375	4.375	0.000	99	187572	2500.0	2401.6	
27 N-Nitrosodimethylamine	74	4.628	4.628	0.000	86	855493	2500.0	2810.9	
28 Pyridine	79	4.687	4.687	0.000	91	1246667	5000.0	5514.2	
42 Benzaldehyde	77		6.475				ND	ND	U
43 Phenol	94	6.493	6.493	0.000	98	1153635	2500.0	2201.0	
44 Aniline	93	6.557	6.557	0.000	96	2191261	2500.0	2388.7	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	94	1607363	2500.0	2395.9	
244 n-Decane	57	6.669	6.669	0.000	90	1365510	2500.0	2476.2	
47 2-Chlorophenol	128	6.669	6.669	0.000	90	1217478	2500.0	2492.0	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	97	1332975	2500.0	2564.7	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	92	1371801	2500.0	2524.3	
50 Benzyl alcohol	108	6.922	6.922	0.000	91	964101	2500.0	2679.5	
52 2-Methylphenol	108	6.993	6.993	0.000	97	1259894	2500.0	2572.3	
51 1,2-Dichlorobenzene	146	6.993	6.993	0.000	95	1386927	2500.0	2496.9	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	92	2388392	2500.0	2094.3	
53 Indene	115	7.063	7.063	0.000	92	4946401	5000.0	4607.8	
55 3 & 4 Methylphenol	108	7.116	7.116	0.000	0	1298339	2500.0	2771.5	
57 N-Nitrosodi-n-propylamine	70	7.134	7.134	0.000	92	1142983	2500.0	2206.9	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605003.D
Lims ID: std8 l1lvi
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 05-Jun-2018 07:38:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-003
Misc. Info.: STD8 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:19 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 08:13:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	136127	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	632895	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	311230	400.0	400.0	
* 4 Phenanthrene-d10	188	10.698	10.698	0.000	98	506167	400.0	400.0	
* 5 Chrysene-d12	240	13.663	13.663	0.000	98	491245	400.0	400.0	
* 6 Perylene-d12	264	16.039	16.039	0.000	97	437211	400.0	400.0	
$ 7 2-Fluorophenol	112	5.769	5.763	0.006	95	503894	2000.0	2125.2	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	859950	2000.0	1712.5	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	91	1365217	2000.0	2094.4	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	100	2320000	2000.0	2072.1	
$ 11 2,4,6-Tribromophenol	330	10.087	10.086	0.000	95	280425	2000.0	2208.1	
$ 12 Terphenyl-d14	244	12.198	12.204	-0.006	100	2300573	2000.0	2128.4	
26 1,4-Dioxane	88	4.375	4.375	0.000	98	154674	2000.0	1869.9	
27 N-Nitrosodimethylamine	74	4.628	4.628	0.000	86	696648	2000.0	2161.3	
28 Pyridine	79	4.693	4.687	0.006	91	1075349	4000.0	4491.0	
42 Benzaldehyde	77	6.475	6.475	0.000	95	1264912	4000.0	4031.2	
43 Phenol	94	6.493	6.493	0.000	98	927797	2000.0	1671.4	
44 Aniline	93	6.557	6.557	0.000	96	1777293	2000.0	1829.4	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	94	1280881	2000.0	1802.7	
47 2-Chlorophenol	128	6.669	6.669	0.000	88	994547	2000.0	1922.1	
244 n-Decane	57	6.669	6.669	0.000	90	1179494	2000.0	2019.5	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	97	1130813	2000.0	2054.4	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	92	1160419	2000.0	2016.2	
50 Benzyl alcohol	108	6.922	6.922	0.000	90	763717	2000.0	2004.2	
51 1,2-Dichlorobenzene	146	6.993	6.993	0.000	94	1145070	2000.0	1946.5	
52 2-Methylphenol	108	6.993	6.993	0.000	95	973066	2000.0	1875.9	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	92	2007266	2000.0	1661.9	
53 Indene	115	7.063	7.063	0.000	91	4164438	4000.0	3662.9	
55 3 & 4 Methylphenol	108	7.110	7.116	-0.006	0	996303	2000.0	2008.1	
57 N-Nitrosodi-n-propylamine	70	7.134	7.134	0.000	89	936910	2000.0	1708.1	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605004.D
Lims ID: std7 l1lvi
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 05-Jun-2018 08:02:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-004
Misc. Info.: STD7 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:24 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 09:50:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	129148	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	638591	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	311132	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.698	-0.006	98	505462	400.0	400.0	
* 5 Chrysene-d12	240	13.657	13.663	-0.006	99	494082	400.0	400.0	
* 6 Perylene-d12	264	16.039	16.039	0.000	97	426419	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.763	0.000	95	328620	1500.0	1460.9	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	644126	1500.0	1352.1	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	91	1043530	1500.0	1586.6	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	100	1734925	1500.0	1550.0	
$ 11 2,4,6-Tribromophenol	330	10.087	10.086	0.001	95	205503	1500.0	1618.7	
$ 12 Terphenyl-d14	244	12.198	12.204	-0.006	100	1688026	1500.0	1552.7	
26 1,4-Dioxane	88	4.375	4.375	0.000	98	112847	1500.0	1437.9	
27 N-Nitrosodimethylamine	74	4.628	4.628	0.000	87	492878	1500.0	1611.8	
28 Pyridine	79	4.687	4.687	0.000	89	716334	3000.0	3153.3	
42 Benzaldehyde	77	6.475	6.475	0.000	95	1044675	3000.0	2981.3	
43 Phenol	94	6.493	6.493	0.000	98	702883	1500.0	1334.6	
44 Aniline	93	6.557	6.557	0.000	95	1320908	1500.0	1433.1	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	95	955874	1500.0	1418.0	
244 n-Decane	57	6.669	6.669	0.000	92	848648	1500.0	1531.6	
47 2-Chlorophenol	128	6.669	6.669	0.000	94	703900	1500.0	1433.9	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	96	796100	1500.0	1524.4	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	92	829012	1500.0	1518.2	
50 Benzyl alcohol	108	6.922	6.922	0.000	90	562634	1500.0	1556.3	
52 2-Methylphenol	108	6.993	6.993	0.000	97	684421	1500.0	1390.7	
51 1,2-Dichlorobenzene	146	6.993	6.993	0.000	95	836230	1500.0	1498.3	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	92	1540730	1500.0	1344.6	
53 Indene	115	7.063	7.063	0.000	91	3167552	3000.0	2936.7	
55 3 & 4 Methylphenol	108	7.110	7.116	-0.006	0	691115	1500.0	1468.2	
57 N-Nitrosodi-n-propylamine	70	7.134	7.134	0.000	92	721774	1500.0	1387.0	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605005.D
Lims ID: std6 l1lvi
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 05-Jun-2018 08:27:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-005
Misc. Info.: STD6 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:29 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 09:51:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	118988	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	622548	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	304450	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	499779	400.0	400.0	
* 5 Chrysene-d12	240	13.657	13.657	0.000	99	479970	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	418758	400.0	400.0	
$ 7 2-Fluorophenol	112	5.769	5.769	0.000	95	223487	1000.0	1078.4	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	424417	1000.0	966.9	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	91	665577	1000.0	1038.1	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	100	1090004	1000.0	995.2	
$ 11 2,4,6-Tribromophenol	330	10.081	10.081	0.000	88	131827	1000.0	1061.2	
$ 12 Terphenyl-d14	244	12.198	12.198	0.000	100	1042225	1000.0	986.9	
26 1,4-Dioxane	88	4.375	4.375	0.000	98	68422	1000.0	946.3	
27 N-Nitrosodimethylamine	74	4.628	4.628	0.000	87	284494	1000.0	1009.8	
28 Pyridine	79	4.687	4.687	0.000	89	414584	2000.0	1980.9	
42 Benzaldehyde	77	6.475	6.475	0.000	95	733836	2000.0	1979.2	
43 Phenol	94	6.493	6.493	0.000	98	465177	1000.0	958.7	
44 Aniline	93	6.557	6.557	0.000	95	841554	1000.0	991.0	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	95	603283	1000.0	971.4	
47 2-Chlorophenol	128	6.669	6.669	0.000	91	460302	1000.0	1017.7	
244 n-Decane	57	6.669	6.669	0.000	91	507478	1000.0	994.1	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	96	473359	1000.0	983.8	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	92	502539	1000.0	998.9	
50 Benzyl alcohol	108	6.916	6.916	0.000	90	320999	1000.0	963.7	
51 1,2-Dichlorobenzene	146	6.993	6.993	0.000	94	510131	1000.0	992.1	
52 2-Methylphenol	108	6.993	6.993	0.000	97	417231	1000.0	920.2	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	92	1006791	1000.0	953.6	
53 Indene	115	7.063	7.063	0.000	91	1997418	2000.0	2009.9	
55 3 & 4 Methylphenol	108	7.110	7.110	0.000	0	372958	1000.0	860.0	
57 N-Nitrosodi-n-propylamine	70	7.128	7.128	0.000	93	474879	1000.0	990.5	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605006.D
Lims ID: std5 l1lvi
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Jun-2018 08:52:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-006
Misc. Info.: STD5 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:33 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 09:52:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	116128	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	594412	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	96	295435	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	505792	400.0	400.0	
* 5 Chrysene-d12	240	13.657	13.657	0.000	98	452853	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	402413	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.769	-0.006	95	104451	500.0	516.4	
$ 8 Phenol-d5	99	6.475	6.481	-0.006	0	200277	500.0	467.5	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	90	324431	500.0	529.9	
$ 10 2-Fluorobiphenyl (Surr)	172	8.792	8.798	-0.006	100	518552	500.0	487.9	
$ 11 2,4,6-Tribromophenol	330	10.081	10.081	0.000	87	63046	500.0	523.0	
$ 12 Terphenyl-d14	244	12.198	12.198	0.000	99	499686	500.0	501.5	
26 1,4-Dioxane	88	4.363	4.375	-0.012	97	30840	500.0	437.0	
27 N-Nitrosodimethylamine	74	4.622	4.628	-0.006	86	139332	500.0	506.7	
28 Pyridine	79	4.681	4.687	-0.006	91	184114	1000.0	901.3	
42 Benzaldehyde	77	6.475	6.475	0.000	94	418881	1000.0	1015.6	
43 Phenol	94	6.487	6.493	-0.006	98	225022	500.0	475.2	
44 Aniline	93	6.557	6.557	0.000	96	415072	500.0	500.8	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	93	294423	500.0	485.7	
244 n-Decane	57	6.669	6.669	0.000	92	254459	500.0	510.7	
47 2-Chlorophenol	128	6.669	6.669	0.000	87	220968	500.0	500.6	
48 1,3-Dichlorobenzene	146	6.798	6.804	-0.006	95	233805	500.0	497.9	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	91	242078	500.0	493.0	
50 Benzyl alcohol	108	6.916	6.916	0.000	89	131221	500.0	403.7	
52 2-Methylphenol	108	6.993	6.993	0.000	97	196696	500.0	444.5	
51 1,2-Dichlorobenzene	146	6.987	6.993	-0.006	94	249613	500.0	497.4	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	91	513710	500.0	498.6	
53 Indene	115	7.057	7.063	-0.006	90	978373	1000.0	1008.8	
55 3 & 4 Methylphenol	108	7.110	7.110	0.000	0	158468	500.0	374.4	
57 N-Nitrosodi-n-propylamine	70	7.128	7.128	0.000	93	235600	500.0	503.5	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605007.D
Lims ID: std4 l1lvi
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 05-Jun-2018 09:16:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-007
Misc. Info.: STD4 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:37 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 09:54:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	97	99553	400.0	400.0	
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	593991	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	296441	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	533597	400.0	400.0	
* 5 Chrysene-d12	240	13.651	13.657	-0.006	98	456843	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	404329	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.769	-0.006	95	33603	200.0	193.8	
$ 8 Phenol-d5	99	6.475	6.481	-0.006	0	84432	200.0	229.9	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	92	122809	200.0	200.7	
$ 10 2-Fluorobiphenyl (Surr)	172	8.792	8.798	-0.006	100	206414	200.0	193.6	
$ 11 2,4,6-Tribromophenol	330	10.081	10.081	0.000	86	22575	200.0	186.6	
$ 12 Terphenyl-d14	244	12.192	12.198	-0.006	99	188468	200.0	187.5	
26 1,4-Dioxane	88	4.363	4.375	-0.012	96	11782	200.0	194.8	
27 N-Nitrosodimethylamine	74	4.622	4.628	-0.006	86	42226	200.0	179.1	
28 Pyridine	79	4.681	4.687	-0.006	91	62622	400.0	357.6	
42 Benzaldehyde	77	6.475	6.475	0.000	92	173650	400.0	440.0	
43 Phenol	94	6.487	6.493	-0.006	97	94137	200.0	231.9	
44 Aniline	93	6.557	6.557	0.000	96	162747	200.0	229.1	
45 Bis(2-chloroethyl)ether	93	6.575	6.581	-0.006	92	110982	200.0	213.6	
47 2-Chlorophenol	128	6.669	6.669	0.000	91	80585	200.0	213.0	
244 n-Decane	57	6.669	6.669	0.000	93	82602	200.0	193.4	
48 1,3-Dichlorobenzene	146	6.798	6.804	-0.006	95	79356	200.0	197.1	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	91	82219	200.0	195.3	
50 Benzyl alcohol	108	6.916	6.916	0.000	89	56255	200.0	201.9	
51 1,2-Dichlorobenzene	146	6.987	6.993	-0.006	89	86376	200.0	200.8	
52 2-Methylphenol	108	6.993	6.993	0.000	95	80531	200.0	212.3	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	91	203166	200.0	230.0	
53 Indene	115	7.057	7.063	-0.006	91	355146	400.0	427.1	
55 3 & 4 Methylphenol	108	7.110	7.110	0.000	0	72097	200.0	198.7	
57 N-Nitrosodi-n-propylamine	70	7.128	7.128	0.000	93	87602	200.0	218.4	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605008.D
Lims ID: std3 l1lvi
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Jun-2018 09:41:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-008
Misc. Info.: STD3 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:42 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 10:06:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.839	6.840	-0.001	97	98124	400.0	400.0	a
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	592926	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	293182	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	526850	400.0	400.0	
* 5 Chrysene-d12	240	13.657	13.657	0.000	98	447343	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	407592	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.769	-0.006	96	15751	100.0	92.2	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	40420	100.0	111.7	
$ 9 Nitrobenzene-d5	82	7.286	7.287	-0.001	91	58804	100.0	96.3	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	100	100457	100.0	95.2	
$ 11 2,4,6-Tribromophenol	330	10.080	10.081	-0.001	86	10534	100.0	88.1	
$ 12 Terphenyl-d14	244	12.198	12.198	0.000	99	88623	100.0	90.0	
26 1,4-Dioxane	88	4.369	4.375	-0.006	96	6542	100.0	109.7	
27 N-Nitrosodimethylamine	74	4.622	4.628	-0.006	88	20883	100.0	89.9	
28 Pyridine	79	4.687	4.687	0.000	89	33469	200.0	193.9	
42 Benzaldehyde	77	6.475	6.475	0.000	93	84154	200.0	189.9	
43 Phenol	94	6.487	6.493	-0.006	97	46857	100.0	117.1	
44 Aniline	93	6.557	6.557	0.000	95	75432	100.0	107.7	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	94	55656	100.0	108.7	
244 n-Decane	57	6.669	6.669	0.000	94	41198	100.0	97.9	
47 2-Chlorophenol	128	6.669	6.669	0.000	88	36839	100.0	98.8	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	96	39291	100.0	99.0	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	94	41256	100.0	99.4	
50 Benzyl alcohol	108	6.916	6.916	0.000	90	29668	100.0	108.0	
52 2-Methylphenol	108	6.992	6.993	-0.001	94	40633	100.0	108.7	
51 1,2-Dichlorobenzene	146	6.992	6.993	-0.001	89	42118	100.0	99.3	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	91	99063	100.0	113.8	
53 Indene	115	7.057	7.063	-0.006	90	173239	200.0	211.4	
55 3 & 4 Methylphenol	108	7.110	7.110	0.000	0	40953	100.0	114.5	
57 N-Nitrosodi-n-propylamine	70	7.128	7.128	0.000	94	42239	100.0	106.8	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605009.D
Lims ID: std2 l1lvi
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Jun-2018 10:06:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-009
Misc. Info.: STD2 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:46 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 10:34:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	98	92246	400.0	400.0	a
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	579497	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	283769	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	519545	400.0	400.0	
* 5 Chrysene-d12	240	13.657	13.657	0.000	99	440242	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	395314	400.0	400.0	
$ 7 2-Fluorophenol	112	5.763	5.769	-0.006	95	7664	50.0	47.7	
$ 8 Phenol-d5	99	6.481	6.481	0.000	0	20185	50.0	59.3	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	92	26829	50.0	45.0	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	99	48716	50.0	47.7	
$ 11 2,4,6-Tribromophenol	330	10.081	10.081	0.000	87	4438	50.0	38.3	
$ 12 Terphenyl-d14	244	12.192	12.198	-0.006	99	43968	50.0	45.4	
26 1,4-Dioxane	88	4.363	4.375	-0.012	95	3516	50.0	62.7	
27 N-Nitrosodimethylamine	74	4.622	4.628	-0.006	86	9860	50.0	45.1	
28 Pyridine	79	4.687	4.687	0.000	92	16045	100.0	98.9	
42 Benzaldehyde	77	6.475	6.475	0.000	92	39684	100.0	73.9	
43 Phenol	94	6.487	6.493	-0.006	97	21716	50.0	57.7	
44 Aniline	93	6.557	6.557	0.000	96	31583	50.0	48.0	
45 Bis(2-chloroethyl)ether	93	6.581	6.581	0.000	95	26420	50.0	54.9	
47 2-Chlorophenol	128	6.669	6.669	0.000	87	17791	50.0	50.7	
244 n-Decane	57	6.669	6.669	0.000	92	20139	50.0	50.9	
48 1,3-Dichlorobenzene	146	6.804	6.804	0.000	95	18185	50.0	48.8	
49 1,4-Dichlorobenzene	146	6.857	6.857	0.000	93	19774	50.0	50.7	
50 Benzyl alcohol	108	6.916	6.916	0.000	90	13276	50.0	51.4	
51 1,2-Dichlorobenzene	146	6.993	6.993	0.000	90	20832	50.0	52.3	
52 2-Methylphenol	108	6.993	6.993	0.000	93	20190	50.0	57.4	
54 2,2'-oxybis[1-chloropropan	45	7.022	7.022	0.000	90	48954	50.0	59.8	
53 Indene	115	7.057	7.063	-0.006	91	80532	100.0	104.5	
55 3 & 4 Methylphenol	108	7.110	7.110	0.000	0	19519	50.0	58.1	
57 N-Nitrosodi-n-propylamine	70	7.128	7.128	0.000	93	21946	50.0	59.0	

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605010.D
Lims ID: std1 l1lvi
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Jun-2018 10:30:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076611-010
Misc. Info.: STD1 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 05:50:51 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 05-Jun-2018 10:57:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.840	6.840	0.000	98	95580	400.0	400.0	a
* 2 Naphthalene-d8	136	7.910	7.910	0.000	100	534466	400.0	400.0	
* 3 Acenaphthene-d10	164	9.410	9.410	0.000	97	248852	400.0	400.0	
* 4 Phenanthrene-d10	188	10.692	10.692	0.000	98	481651	400.0	400.0	
* 5 Chrysene-d12	240	13.651	13.657	-0.006	98	384595	400.0	400.0	
* 6 Perylene-d12	264	16.033	16.033	0.000	97	353030	400.0	400.0	
$ 9 Nitrobenzene-d5	82	7.287	7.287	0.000	95	4787	10.0	8.70	
$ 10 2-Fluorobiphenyl (Surr)	172	8.798	8.798	0.000	99	9106	10.0	10.2	
$ 12 Terphenyl-d14	244	12.198	12.198	0.000	99	9091	10.0	10.7	
28 Pyridine	79	4.693	4.687	0.006	96	3292	20.0	19.6	
42 Benzaldehyde	77		6.475				ND	ND	U
74 Naphthalene	128	7.928	7.928	0.000	96	14965	10.0	10.2	
83 Caprolactam	113	8.210	8.222	-0.012	73	2723	20.0	18.1	
86 2-Methylnaphthalene	142	8.510	8.504	0.006	91	8927	10.0	9.21	
87 1-Methylnaphthalene	142	8.598	8.592	0.006	90	8015	10.0	8.83	
99 1,1'-Biphenyl	154	8.892	8.887	0.005	96	10279	10.0	9.62	
100 2-Chloronaphthalene	162	8.928	8.928	0.000	96	8206	10.0	10.3	
108 Acenaphthylene	152	9.292	9.292	0.000	98	9430	10.0	8.34	
111 Acenaphthene	153	9.439	9.439	0.000	95	9197	10.0	10.5	
115 Dibenzofuran	168	9.581	9.581	0.000	95	11170	10.0	10.0	
124 Fluorene	166	9.875	9.875	0.000	92	8782	10.0	9.47	
141 Atrazine	200	10.351	10.357	-0.006	82	4210	20.0	16.2	
140 Hexachlorobenzene	284	10.369	10.369	0.000	89	2540	10.0	9.42	
148 Phenanthrene	178	10.716	10.716	0.000	96	14934	10.0	10.5	
149 Anthracene	178	10.757	10.757	0.000	99	12410	10.0	8.67	
159 Fluoranthene	202	11.839	11.839	0.000	98	12506	10.0	9.06	
161 Pyrene	202	12.098	12.098	0.000	95	12737	10.0	10.4	
178 Benzo[a]anthracene	228	13.639	13.639	0.000	65	12108	10.0	10.5	
179 Chrysene	228	13.692	13.698	-0.006	98	11597	10.0	10.2	
183 Benzo[b]fluoranthene	252	15.368	15.374	-0.006	97	10408	10.0	9.55	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: 80607006.D

Analysis Method: 8270D | Date Collected: 05/31/2018 12:01

Extract. Method: 3510C | Date Extracted: 06/04/2018 07:15

Sample wt/vol: 260(mL) | Date Analyzed: 06/07/2018 09:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 2.5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330413 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	54		2.4	0.93

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	71		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180607-76693.b\80607006.D
Lims ID: 240-96479-G-4-A
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 07-Jun-2018 09:56:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 2.5000
Sample Info: 240-0076693-006
Misc. Info.: 240-96479-G-4-A
Operator ID: Instrument ID: A4AG2

Method: \\ChromNA\Canton\ChromData\A4AG2\20180607-76693.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 07-Jun-2018 10:33:06 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: hulat Date: 07-Jun-2018 10:31:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.824	6.824	0.000	98	99230	400.0	
* 2 Naphthalene-d8	136	7.894	7.894	0.000	100	571267	400.0	
* 3 Acenaphthene-d10	164	9.394	9.394	0.000	97	284311	400.0	
* 4 Phenanthrene-d10	188	10.676	10.682	-0.006	98	579072	400.0	
* 5 Chrysene-d12	240	13.629	13.635	-0.006	99	506173	400.0	
* 6 Perylene-d12	264	16.000	16.006	-0.006	97	480704	400.0	
$ 7 2-Fluorophenol	112	5.741	5.741	-0.001	94	78221	452.6	
$ 8 Phenol-d5	99	6.459	6.459	0.000	0	128227	350.3	
$ 9 Nitrobenzene-d5	82	7.271	7.271	0.000	92	253836	431.4	
$ 10 2-Fluorobiphenyl (Surr)	172	8.782	8.782	-0.001	100	410974	401.8	
$ 11 2,4,6-Tribromophenol	330	10.065	10.071	-0.006	86	58283	502.4	
$ 12 Terphenyl-d14	244	12.176	12.171	-0.001	100	519970	466.9	
26 1,4-Dioxane	88	4.330	4.330	0.000	97	67630	1121.6	

Reagents:

SMIS80PPMW_00017 Amount Added: 5.00 Units: uL Run Reagent

TestAmerica Canton
Recovery Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180607-76693.b\80607006.D
Lims ID: 240-96479-G-4-A
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 07-Jun-2018 09:56:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 2.5000
Sample Info: 240-0076693-006
Misc. Info.: 240-96479-G-4-A
Operator ID: Instrument ID: A4AG2

Method: \\ChromNA\Canton\ChromData\A4AG2\20180607-76693.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 07-Jun-2018 10:33:06 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: hulat Date: 07-Jun-2018 10:31:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	1600.0	452.6	70.72
$ 8 Phenol-d5	1600.0	350.3	54.74
$ 9 Nitrobenzene-d5	1600.0	431.4	67.41
$ 10 2-Fluorobiphenyl (Surr)	1600.0	401.8	62.78
$ 11 2,4,6-Tribromophenol	1600.0	502.4	78.50
$ 12 Terphenyl-d14	1600.0	466.9	72.95

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80606020.D

Lab ID: LCS 240-329844/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.3	45	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180606-76653.b\80606020.D
Lims ID: LCS 240-329844/7-A
Client ID:
Sample Type: LCS
Inject. Date: 06-Jun-2018 11:20:30 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076653-020
Misc. Info.: LCS 240-329844/7-A
Operator ID: Instrument ID: A4AG2

Method: \\ChromNA\Canton\ChromData\A4AG2\20180606-76653.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 12:45:06 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 06-Jun-2018 12:32:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.835	6.835	0.000	97	95741	400.0	400.0	
* 2 Naphthalene-d8	136	7.905	7.905	0.000	100	547212	400.0	400.0	
* 3 Acenaphthene-d10	164	9.399	9.405	-0.006	97	273439	400.0	400.0	
* 4 Phenanthrene-d10	188	10.687	10.687	0.000	98	459836	400.0	400.0	
* 5 Chrysene-d12	240	13.646	13.652	-0.006	99	439989	400.0	400.0	
* 6 Perylene-d12	264	16.022	16.022	0.000	97	397036	400.0	400.0	
$ 7 2-Fluorophenol	112	5.758	5.758	0.000	95	182783	1600.0	1096.1	
$ 8 Phenol-d5	99	6.476	6.426	0.000	0	290019	1600.0	821.2	
$ 9 Nitrobenzene-d5	82	7.282	7.282	0.000	91	698372	1600.0	1239.2	
$ 10 2-Fluorobiphenyl (Surr)	172	8.787	8.788	-0.006	100	1185707	1600.0	1205.4	
$ 11 2,4,6-Tribromophenol	330	10.075	10.069	-0.001	90	157931	1600.0	1415.5	
$ 12 Terphenyl-d14	244	12.187	12.188	-0.006	99	1288200	1600.0	1330.6	
26 1,4-Dioxane	88	4.370	4.325	0.012	98	41663	1600.0	716.1	
27 N-Nitrosodimethylamine	74	4.617	4.581	0.000	87	148759	1600.0	656.2	
28 Pyridine	79		4.676				ND	ND	U
42 Benzaldehyde	77	6.470	6.420	0.000	94	525489	1600.0	1696.6	
43 Phenol	94	6.487	6.437	-0.001	97	322512	1600.0	826.1	
44 Aniline	93		6.552				ND	ND	U
45 Bis(2-chloroethyl)ether	93	6.576	6.525	0.000	96	601377	1600.0	1203.4	
47 2-Chlorophenol	128	6.664	6.612	0.000	95	453152	1600.0	1245.2	
244 n-Decane	57	6.664	6.612	0.000	91	406756	1600.0	990.2	
48 1,3-Dichlorobenzene	146	6.799	6.741	0.005	96	378529	1600.0	977.8	
49 1,4-Dichlorobenzene	146	6.852	6.799	0.000	92	395932	1600.0	978.1	
50 Benzyl alcohol	108	6.911	6.858	0.000	90	304556	1600.0	1136.3	
52 2-Methylphenol	108	6.987	6.933	-0.001	97	469944	1600.0	1288.1	
51 1,2-Dichlorobenzene	146	6.982	6.933	-0.006	94	422206	1600.0	1020.4	
54 2,2'-oxybis[1-chloropropan	45	7.017	6.963	0.000	92	1028661	1600.0	1210.9	
53 Indene	115	7.052	6.998	0.000	91	1771831	3200.0	2215.9	
55 3 & 4 Methylphenol	108	7.105	7.111	0.000	0	463682	1600.0	1328.8	
57 N-Nitrosodi-n-propylamine	70	7.123	7.068	0.000	93	505755	1600.0	1311.0	
58 Acetophenone	105	7.146	7.091	-0.001	93	849799	1600.0	1293.1	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: STD6 240-330212/2 Calibration Date: 06/06/2018 07:14

Instrument ID: A4AG2 Calib Start Date: 06/05/2018 07:13

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/05/2018 10:30

Lab File ID: 80606002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2431	0.2495		1.03	1.00	2.7	20.0
N-Nitrosodimethylamine	Ave	0.9471	0.8829		0.932	1.00	-6.8	20.0
Pyridine	Ave	0.7036	0.6989		1.99	2.00	-0.7	20.0
Benzaldehyde	Qua		1.228	0.0100	1.97	2.00	-1.6	20.0
Phenol	Ave	1.631	1.388	0.8000	0.851	1.00	-14.9	20.0
Aniline	Ave	2.855	2.973		1.04	1.00	4.1	20.0
Bis(2-chloroethyl)ether	Ave	2.088	2.138	0.7000	1.02	1.00	2.4	20.0
2-Chlorophenol	Ave	1.520	1.473	0.8000	0.969	1.00	-3.1	20.0
n-Decane	Ave	1.716	1.620		0.944	1.00	-5.6	20.0
1,3-Dichlorobenzene	Ave	1.617	1.558		0.963	1.00	-3.7	20.0
1,4-Dichlorobenzene	Ave	1.691	1.636		0.968	1.00	-3.2	20.0
Benzyl alcohol	Ave	1.120	1.230		1.10	1.00	9.9	20.0
1,2-Dichlorobenzene	Ave	1.729	1.725		0.998	1.00	-0.2	20.0
2-Methylphenol	Ave	1.524	1.464	0.7000	0.961	1.00	-3.9	20.0
bis (2-chloroisopropyl) ether	Ave	3.549	3.572		1.01	1.00	0.6	20.0
Indene	Ave	3.341	3.425		2.05	2.00	2.5	20.0
3 & 4 Methylphenol	Ave	1.458	1.562		1.07	1.00	7.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.612	1.718	0.5000	1.07	1.00	6.6	20.0
Acetophenone	Ave	2.746	2.944	0.0100	1.07	1.00	7.2	20.0
Hexachloroethane	Ave	0.6941	0.6852	0.3000	0.987	1.00	-1.3	20.0
Nitrobenzene	Ave	0.4254	0.4268	0.2000	1.00	1.00	0.3	20.0
Isophorone	Ave	0.7295	0.7663	0.4000	1.05	1.00	5.0	20.0
2,4-Dimethylphenol	Ave	0.3171	0.3456	0.2000	1.09	1.00	9.0	20.0
2-Nitrophenol	Ave	0.1879	0.2016	0.1000	1.07	1.00	7.3	20.0
Benzoic acid	Lin1		0.1901		2.10	2.00	5.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.4635	0.4638	0.3000	1.00	1.00	0.0	20.0
2,4-Dichlorophenol	Ave	0.1997	0.2389	0.2000	1.20	1.00	19.6	20.0
1,2,4-Trichlorobenzene	Ave	0.2893	0.2774		0.959	1.00	-4.1	20.0
Naphthalene	Ave	1.103	1.115	0.7000	1.01	1.00	1.2	20.0
4-Chloroaniline	Ave	0.5443	0.6021	0.0100	1.11	1.00	10.6	20.0
2,6-Dichlorophenol	Ave	0.2543	0.2750		1.08	1.00	8.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1510	0.0100	1.01	1.00	0.6	20.0
Caprolactam	Ave	0.1127	0.1188	0.0100	2.11	2.00	5.4	20.0
4-Chloro-3-methylphenol	Lin1		0.3130	0.2000	1.03	1.00	2.5	20.0
2-Methylnaphthalene	Ave	0.7257	0.7452	0.4000	1.03	1.00	2.7	20.0
1-Methylnaphthalene	Ave	0.6792	0.6990		1.03	1.00	2.9	20.0
Hexachlorocyclopentadiene	Ave	0.3352	0.3616	0.0500	1.08	1.00	7.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5546	0.5823	0.0100	1.05	1.00	5.0	20.0
2,4,6-Trichlorophenol	Lin1		0.3839	0.2000	0.973	1.00	-2.7	20.0
2,4,5-Trichlorophenol	Lin1		0.3953	0.2000	0.995	1.00	-0.5	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180606-76653.b\80606002.D
Lims ID: std6 l1lvi
Client ID:
Sample Type: CCVIS
Inject. Date: 06-Jun-2018 07:14:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076653-002
Misc. Info.: STD6 L1LVI
Operator ID: Instrument ID: A4AG2
Sublist: chrom-LVI AG2 8270*sub20

Method: \\ChromNA\Canton\ChromData\A4AG2\20180606-76653.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 06-Jun-2018 11:02:31 Calib Date: 05-Jun-2018 14:11:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605019.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK008

First Level Reviewer: hulat Date: 06-Jun-2018 07:46:22

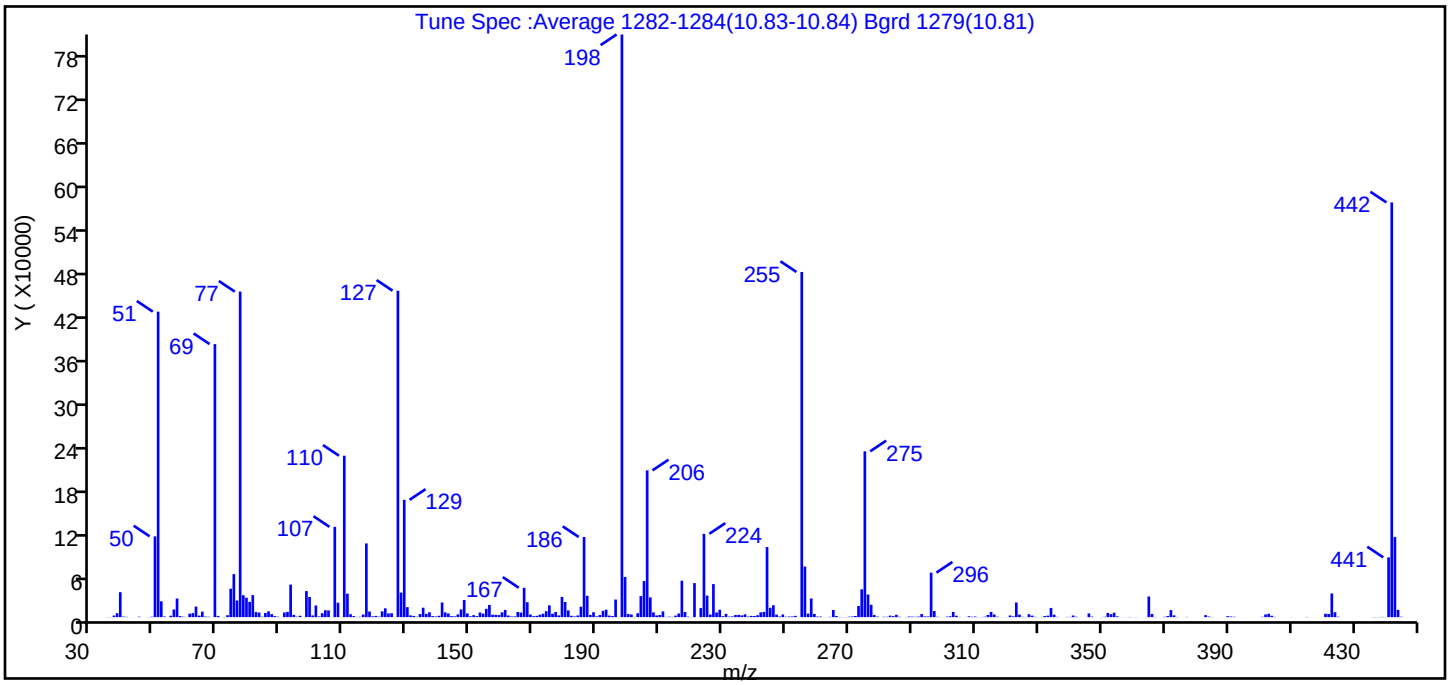
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ml	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.835	6.835	0.000	97	106434	400.0	400.0	
* 2 Naphthalene-d8	136	7.905	7.905	0.000	100	598525	400.0	400.0	
* 3 Acenaphthene-d10	164	9.405	9.405	0.000	97	299304	400.0	400.0	
* 4 Phenanthrene-d10	188	10.687	10.687	0.000	98	493480	400.0	400.0	
* 5 Chrysene-d12	240	13.652	13.652	0.000	99	467111	400.0	400.0	
* 6 Perylene-d12	264	16.022	16.022	0.000	97	436876	400.0	400.0	
$ 7 2-Fluorophenol	112	5.758	5.758	0.000	95	189906	1000.0	1024.4	
$ 8 Phenol-d5	99	6.476	6.476	0.000	0	337274	1000.0	859.0	
$ 9 Nitrobenzene-d5	82	7.282	7.282	0.000	91	638101	1000.0	1035.1	
$ 10 2-Fluorobiphenyl (Surr)	172	8.793	8.793	0.000	100	1074874	1000.0	998.3	
$ 11 2,4,6-Tribromophenol	330	10.076	10.076	0.000	88	128958	1000.0	1055.9	
$ 12 Terphenyl-d14	244	12.193	12.193	0.000	99	1010862	1000.0	983.5	
26 1,4-Dioxane	88	4.358	4.358	0.000	97	66398	1000.0	1026.6	
27 N-Nitrosodimethylamine	74	4.617	4.617	0.000	87	234912	1000.0	932.1	
28 Pyridine	79	4.676	4.676	0.000	88	371946	2000.0	1986.7	
42 Benzaldehyde	77	6.470	6.470	0.000	95	653739	2000.0	1968.3	
43 Phenol	94	6.488	6.488	0.000	97	369434	1000.0	851.2	
44 Aniline	93	6.552	6.552	0.000	96	791020	1000.0	1041.3	
45 Bis(2-chloroethyl)ether	93	6.576	6.576	0.000	94	568770	1000.0	1023.8	
47 2-Chlorophenol	128	6.664	6.664	0.000	90	391960	1000.0	968.9	
244 n-Decane	57	6.664	6.664	0.000	91	431001	1000.0	943.8	
48 1,3-Dichlorobenzene	146	6.794	6.794	0.000	95	414630	1000.0	963.4	
49 1,4-Dichlorobenzene	146	6.852	6.852	0.000	91	435418	1000.0	967.6	
50 Benzyl alcohol	108	6.911	6.911	0.000	90	327408	1000.0	1098.9	
52 2-Methylphenol	108	6.988	6.988	0.000	97	389592	1000.0	960.6	
51 1,2-Dichlorobenzene	146	6.988	6.988	0.000	95	459066	1000.0	998.1	
54 2,2'-oxybis[1-chloropropan	45	7.017	7.017	0.000	92	950338	1000.0	1006.3	
53 Indene	115	7.052	7.052	0.000	91	1822645	2000.0	2050.4	
55 3 & 4 Methylphenol	108	7.105	7.105	0.000	0	415551	1000.0	1071.2	
57 N-Nitrosodi-n-propylamine	70	7.123	7.123	0.000	90	457191	1000.0	1066.0	

MS Tune Report

TestAmerica Canton

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605001.D
Injection Date: 05-Jun-2018 06:56:30 Instrument ID: A4AG2
Lims ID: dftpp
Client ID:
Operator ID: ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: LVI AG2 8270 Limit Group: MSS 8270D ICAL
Tune Method: DFTPP Method CLP OLM4.2

151 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100 percent relative abundance	100
51	30.0 - 80.0 percent of mass 198	52.4
68	Less than 2.0 percent of mass 69	0.0 (0.0)
69	Present	46.9
70	Less than 2.0 percent of mass 69	0.2 (0.5)
127	25.0 - 75.0 percent of mass 198	56.0 ✓
197	Less than 1.0 percent of mass 198	0.0
199	5.0 - 9.0 percent of mass 198	6.9
275	10.0 - 30.0 percent of mass 198	28.5
365	Greater than 0.75 percent of mass 198	3.5
441	Present but less than mass 443	10.3 (74.5)
442	40.0 - 110.0 percent of mass 198	71.2
443	15.0 - 24.0 percent of mass 442	13.8 (19.3)

Report Date: 06-Jun-2018 05:50:11 Chrom Revision: 2.2 11-May-2018 08:54:46
Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605001.D\LVI AG2 8270.rslt\spectra.d
Injection Date: 05-Jun-2018 06:56:30
Spectrum: Tune Spec :Average 1282-1284(10.83-10.84) Bgrd 1279(10.81)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 345

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	59616	166.00	6281	256.00	70040	352.00	5812
76.00	23072	167.00	40680	257.00	4886	353.00	4100
77.00	450880	168.00	20728	258.00	25856	354.00	6154
78.00	30360	169.00	3575	259.00	4461	355.00	1100
79.00	26880	170.00	1347	260.00	813	356.00	105
80.00	21192	171.00	1822	261.00	776	357.00	74
81.00	30504	172.00	3422	262.00	72	358.00	54
82.00	7007	173.00	4743	263.00	87	359.00	311
83.00	6396	174.00	8282	264.00	479	360.00	63
84.00	560	175.00	16370	265.00	9900	361.00	212
85.00	5777	176.00	4710	266.00	1694	363.00	69
86.00	8044	177.00	7145	267.00	269	364.00	141
87.00	4165	178.00	2436	268.00	215	365.00	28632
88.00	1441	179.00	28040	269.00	244	366.00	4474
89.00	652	180.00	20968	270.00	600	367.00	199
90.00	63	181.00	9381	271.00	888	370.00	506
91.00	6430	182.00	1928	272.00	1594	371.00	1658
92.00	7315	183.00	897	273.00	15426	372.00	9811
93.00	45104	184.00	2327	274.00	38568	373.00	2447
94.00	3125	185.00	14450	275.00	229696	374.00	246
95.00	609	186.00	111000	276.00	31368	377.00	322
96.00	1923	187.00	29600	277.00	17128	383.00	2793
98.00	36112	188.00	3032	278.00	2873	384.00	877
99.00	27936	189.00	6859	279.00	717	385.00	278
100.00	2337	190.00	1078	281.00	516	390.00	1396
101.00	16178	191.00	2913	282.00	478	391.00	859
102.00	941	192.00	8767	283.00	2119	392.00	557
103.00	5371	193.00	10303	284.00	1435	393.00	104
104.00	9536	194.00	2177	285.00	3288	401.00	512
105.00	9330	195.00	1572	286.00	537	402.00	3744
107.00	125056	196.00	24368	288.00	171	403.00	4701
108.00	19968	198.00	807104	289.00	864	404.00	1895
110.00	223616	199.00	55712	290.00	680	405.00	325
111.00	32520	200.00	4432	291.00	436	410.00	83

Report Date: 06-Jun-2018 05:50:11 Chrom Revision: 2.2 11-May-2018 08:54:46
Data File: \\ChromNA\Canton\ChromData\A4AG2\20180605-76611.b\80605001.D\LVI AG2 8270.rslt\spectra.d
Injection Date: 05-Jun-2018 06:56:30
Spectrum: Tune Spec :Average 1282-1284(10.83-10.84) Bgrd 1279(10.81)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 345

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	4040	201.00	3727	292.00	825	415.00	291
113.00	1503	202.00	245	293.00	4238	416.00	50
114.00	285	203.00	5428	294.00	1013	421.00	4741
115.00	530	204.00	29144	295.00	979	422.00	4327
116.00	3634	205.00	49952	296.00	61688	423.00	32856
117.00	102128	206.00	203328	297.00	8457	424.00	6767
118.00	7781	207.00	27384	298.00	498	425.00	606
119.00	1059	208.00	6672	299.00	107	436.00	182
120.00	1682	209.00	2352	300.00	55	437.00	240
121.00	667	210.00	3001	301.00	694	438.00	242
122.00	8007	211.00	7917	302.00	1258	439.00	342
123.00	12204	212.00	307	303.00	7123	440.00	201
124.00	5090	213.00	644	304.00	1990	441.00	82776
125.00	5385	214.00	368	305.00	305	442.00	574464
127.00	452160	215.00	2147	307.00	55	443.00	111080
128.00	33976	216.00	5015	308.00	1201	444.00	10113
129.00	162496	217.00	50464	309.00	560	445.00	550
130.00	13843	218.00	7095	310.00	825		
131.00	2445	219.00	668	311.00	153		
132.00	1741	220.00	138	312.00	241		

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
DMW-7S-053118	240-96479-4	82
MSA-MW-5-053118	240-96479-5	80
	MB 240-329811/22	74
	MB 240-330022/10	85
	LCS 240-329811/23	85
	LCS 240-330022/11	87

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: MB 240-329811/22

Matrix: Water Date Extracted: 06/04/2018 18:51

Lab File ID:(1) A0060422.D Lab File ID:(2)

Date Analyzed:(1) 06/04/2018 18:51 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329811/23	06/04/2018 19:28	
MSA-MW-5-053118	240-96479-5	06/05/2018 04:10	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329811/22

Matrix: Water | Lab File ID: A0060422.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/04/2018 18:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 329811 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	74		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0060423.D

Lab ID: LCS 240-329811/23 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	819	102	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: MB 240-330022/10

Matrix: Water Date Extracted: 06/05/2018 11:59

Lab File ID:(1) A0060510.D Lab File ID:(2)

Date Analyzed:(1) 06/05/2018 11:59 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-330022/11	06/05/2018 12:37	
DMW-7S-053118	240-96479-4	06/05/2018 13:15	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-330022/10

Matrix: Water | Lab File ID: A0060510.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/05/2018 11:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 330022 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0060511.D

Lab ID: LCS 240-330022/11 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	924	115	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: CCVRT 240-329811/4 Date Analyzed: 06/04/2018 07:25

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0060404.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.39		
UPPER LIMIT				10.49		
LOWER LIMIT				10.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-329811/4		06/04/2018 07:25	A0060404.D	10.39		
CCV 240-329811/19		06/04/2018 16:59	A0060419.D	10.39		
MB 240-329811/22		06/04/2018 18:51	A0060422.D	10.39		
LCS 240-329811/23		06/04/2018 19:28	A0060423.D	10.39		
CCV 240-329811/32		06/05/2018 01:02	A0060432.D	10.39		
240-96479-5	MSA-MW-5-053118	06/05/2018 04:10	A0060437.D	10.39		
CCV 240-329811/38		06/05/2018 04:48	A0060438.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: CCVRT 240-330022/4 Date Analyzed: 06/05/2018 08:17

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0060504.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.39		
UPPER LIMIT				10.49		
LOWER LIMIT				10.29		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-330022/4		06/05/2018 08:17	A0060504.D	10.39		
CCV 240-330022/9		06/05/2018 11:22	A0060509.D	10.39		
MB 240-330022/10		06/05/2018 11:59	A0060510.D	10.39		
LCS 240-330022/11		06/05/2018 12:37	A0060511.D	10.39		
240-96479-4	DMW-7S-053118	06/05/2018 13:15	A0060512.D	10.39		
CCV 240-330022/19		06/05/2018 17:35	A0060519.D	10.39		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVRT 240-329811/4 Calibration Date: 06/04/2018 07:25

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060404.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		210465		855	800	6.9	20.0
C6-C12	Lin1		237428		840	800	5.0	20.0
Trifluorotoluene (Surr)	Lin1		267743		45.8	40.0	14.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVRT 240-329811/4 Calibration Date: 06/04/2018 07:25

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060404.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.94	17.04
C6-C12	13.23	6.94	19.52
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/19 Calibration Date: 06/04/2018 16:59

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060419.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		215253		876	800	9.5	20.0
C6-C12	Lin1		244495		868	800	8.4	20.0
Trifluorotoluene (Surr)	Lin1		265380		45.4	40.0	13.4	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/19 Calibration Date: 06/04/2018 16:59

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060419.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.94	17.04
C6-C12	13.23	6.94	19.56
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/32 Calibration Date: 06/05/2018 01:02

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060432.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		199492		809	800	1.1	20.0
C6-C12	Lin1		224817		790	800	-1.2	20.0
Trifluorotoluene (Surr)	Lin1		216061		36.7	40.0	-8.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/32 Calibration Date: 06/05/2018 01:02

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060432.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.94	17.04
C6-C12	13.25	6.94	19.56
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/38 Calibration Date: 06/05/2018 04:48

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060438.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		209641		852	800	6.5	20.0
C6-C12	Lin1		235633		833	800	4.1	20.0
Trifluorotoluene (Surr)	Lin1		206485		35.0	40.0	-12.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-329811/38 Calibration Date: 06/05/2018 04:48

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060438.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.94	17.04
C6-C12	13.25	6.94	19.56
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVRT 240-330022/4 Calibration Date: 06/05/2018 08:17

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060504.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		223796		912	800	14.0	20.0
C6-C12	Lin1		254264		906	800	13.2	20.0
Trifluorotoluene (Surr)	Lin1		237187		40.4	40.0	1.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVRT 240-330022/4 Calibration Date: 06/05/2018 08:17

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060504.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.95	17.04
C6-C12	13.24	6.95	19.53
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330022/9 Calibration Date: 06/05/2018 11:22

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060509.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		224263		914	800	14.2	20.0
C6-C12	Lin1		253127		901	800	12.7	20.0
Trifluorotoluene (Surr)	Lin1		244321		41.7	40.0	4.1	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330022/9 Calibration Date: 06/05/2018 11:22

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060509.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.95	17.04
C6-C12	13.24	6.95	19.53
Trifluorotoluene (Surr)	10.39	10.34	10.44

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330022/19 Calibration Date: 06/05/2018 17:35

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060519.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		230887		942	800	17.7	20.0
C6-C12	Lin1		261107		933	800	16.6	20.0
Trifluorotoluene (Surr)	Lin1		255886		43.7	40.0	9.2	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330022/19 Calibration Date: 06/05/2018 17:35

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060519.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.95	17.04
C6-C12	13.24	6.95	19.53
Trifluorotoluene (Surr)	10.39	10.34	10.44

Initial Calibration: **4/18/2018** GRO

COMPOUND OF INTEREST AREA	COMPOUND AMOUNT PPB	RRF
33354301	100	333543.0100
44591278	200	222956.3900
81639195	400	204097.9875
157804371	800	197255.4638
237127867	1200	197606.5558
305456948	1600	190910.5925
589106674	3200	184095.8356
930667774	4800	193889.1196

SAMPLE CALC **SAMPLE ID** **DMW-7S-053118**

DILUTION	COMPOUND OF INTEREST AREA	Sample Volume (ML)	AVE RRF	CONCENTRATION PPB
10	50458490	5	189290.1940	2325.72

Final Volume (ML)	Y-INTERCEPT
5	6434878.01

SAMPLE CALC **SAMPLE ID** **LCS 240-329811/23**

DILUTION	COMPOUND OF INTEREST AREA	Sample Volume (ML)	RRF	CONCENTRATION PPB
1	161528697	5	189290.1940	819.34

Final Volume (ML)	Y-INTERCEPT
5	6434878.01

LCS %R	SPIKE AMOUNT	LCS CONCENTRATION
102.38	800	819.00

SURROGATE %R **TRIFLUOROTOLUENE** **AMOUNT SURROGATE (PPB)** **40** **%R =** **81.6562926** **SAMPLE DMW-7S-053118**

DILUTION	COMPOUND OF INTEREST AREA	Final Volume (ML)	Volume Purged (ML)	RRF	CONCENTRATION PPB
1	7732415	5	5	226941.8390	32.66

Y-INTERCEPT
319923.315

CCV RRF ON 06/04/18 @ 07:25

COMPOUND OF INTEREST AREA	COMPOUND AMOUNT PPB	RRF
168372275	800	210465.3438

% DIFFERENCE CCV	CALC AMOUNT	SPIKE AMOUNT
-6.875	855.0000	800

FORM VI

GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA

CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041804.D
Lims ID: STD1 GAS
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Apr-2018 08:10:33 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-004
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:24 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: reedr Date: 19-Apr-2018 05:50:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.372	10.373	-0.001	1420776	4.00	4.85	
A 5 C6-C10	11.960	(6.888-17.031)		33354301	100.0	142.2	
A 1 C6-C12	13.212	(6.888-19.536)		43920328	100.0	123.2	

Reagents:

VGGASCALNEW_00024 Amount Added: 5.00 Units: uL
Gas Surr Cali_00023 Amount Added: 1.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041805.D
Lims ID: STD2 GAS
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Apr-2018 08:47:36 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-005
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:29 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: reedr Date: 18-Apr-2018 09:16:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.370	10.373	-0.003	1944745	8.00	7.16	
A 5 C6-C10	11.960	(6.888-17.031)		44591278	200.0	201.6	
A 1 C6-C12	13.212	(6.888-19.536)		55463455	200.0	179.8	

Reagents:

VGGASCALNEW_00024 Amount Added: 10.00 Units: uL
Gas Surr Cali_00023 Amount Added: 2.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041806.D
Lims ID: STD3 GAS
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Apr-2018 09:24:37 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-006
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:33 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: reedr Date: 18-Apr-2018 09:53:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.368	10.373	-0.005	4781241	20.0	19.7	
A 5 C6-C10	11.960	(6.888-17.031)		81639195	400.0	397.3	
A 1 C6-C12	13.212	(6.888-19.536)		92308420	400.0	360.6	

Reagents:

VGGASCALNEW_00024 Amount Added: 20.00 Units: uL
Gas Surr Cali_00023 Amount Added: 5.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041807.D
Lims ID: STD4 GAS
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 18-Apr-2018 10:02:25 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-007
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:38 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: reedr Date: 18-Apr-2018 12:21:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.373	10.373	0.000	9170418	40.0	39.0	
A 5 C6-C10	11.960	(6.888-17.031)		157804371	800.0	799.7	
A 1 C6-C12	13.212	(6.888-19.536)		176920348	800.0	775.9	

Reagents:

VGGASCALNEW_00024 Amount Added: 40.00 Units: uL
Gas Surr Cali_00023 Amount Added: 10.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041808.D
Lims ID: STD5 GAS
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Apr-2018 10:39:44 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-008
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:43 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.371	10.373	-0.002	17522730	80.0	75.8	
A 5 C6-C10	11.960	(6.888-17.031)		237127867	1200.0	1218.7	
A 1 C6-C12	13.212	(6.888-19.536)		264739378	1200.0	1206.9	

Reagents:

VGGASCALNEW_00024 Amount Added: 60.00 Units: uL
Gas Surr Cali_00023 Amount Added: 20.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041809.D
Lims ID: STD6 GAS
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Apr-2018 11:17:17 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-009
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:48 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.371	10.373	-0.002	43807262	200.0	191.6	
A 5 C6-C10	11.960	(6.888-17.031)		305456948	1600.0	1579.7	
A 1 C6-C12	13.212	(6.888-19.536)		339760877	1600.0	1575.1	

Reagents:

VGGASCALNEW_00024 Amount Added: 80.00 Units: uL
Gas Surr Cali_00023 Amount Added: 50.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041810.D
Lims ID: STD7 GAS
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Apr-2018 11:54:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-010
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:53 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.374	10.373	0.001	92627018	400.0	406.7	
A 5 C6-C10	11.960	(6.888-17.031)		589106674	3200.0	3078.2	
A 1 C6-C12	13.212	(6.888-19.536)		654009953	3200.0	3117.4	

Reagents:

VGGASCALNEW_00024 Amount Added: 160.00 Units: uL
Gas Surr Cali_00023 Amount Added: 100.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D
Lims ID: STD8 GAS
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 18-Apr-2018 12:32:11 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0075011-011
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 19-Apr-2018 05:54:58 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: reedr Date: 19-Apr-2018 05:18:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.376	10.373	0.003	138110563	600.0	607.2	
A 5 C6-C10	11.960	(6.888-17.031)		930667774	4800.0	4882.6	
A 1 C6-C12	13.212	(6.888-19.536)		1029672698	4800.0	4961.1	

Reagents:

VGGASCALNEW_00024 Amount Added: 240.00 Units: uL
Gas Surr Cali_00023 Amount Added: 150.00 Units: uL

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1
SDG No.:
Client Sample ID: DMW-7S-053118 Lab Sample ID: 240-96479-4
Matrix: Water Lab File ID: A0060512.D
Analysis Method: 8015C Date Collected: 05/31/2018 12:01
Sample wt/vol: 5(mL) Date Analyzed: 06/05/2018 13:15
Soil Aliquot Vol: Dilution Factor: 10
Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 330022 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	2300		1000	490

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	82		56-120

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180605-76610.b\A0060512.D
Lims ID: 240-96479-A-4
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 05-Jun-2018 13:15:06 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 240-0076610-012
Operator ID: Instrument ID: AFID

Method: \\ChromNA\Canton\ChromData\AFID\20180605-76610.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 06-Jun-2018 07:54:40 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.389	10.389	0.000	7732415	32.7	
A 5 C6-C10	11.991	(6.945-17.038)		50458490	232.6	

Reagents:

VGGASURROGATE_00046 Amount Added: 1.00 Units: uL Run Reagent

TestAmerica Canton
Recovery Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180605-76610.b\A0060512.D
Lims ID: 240-96479-A-4
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 05-Jun-2018 13:15:06 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 240-0076610-012
Operator ID: Instrument ID: AFID

Method: \\ChromNA\Canton\ChromData\AFID\20180605-76610.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 06-Jun-2018 07:54:40 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK011

Compound	Amount Added	Amount Recovered	% Rec.
$ 16 Trifluorotoluene (Surr)	40.0	32.7	81.66

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0060423.D

Lab ID: LCS 240-329811/23 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	819	102	√ 73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1
SDG No.:
Client Sample ID: Lab Sample ID: LCS 240-329811/23
Matrix: Water Lab File ID: A0060423.D
Analysis Method: 8015C Date Collected:
Sample wt/vol: 5(mL) Date Analyzed: 06/04/2018 19:28
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 329811 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	819		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180604-76559.b\A0060423.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-Jun-2018 19:28:20 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076559-023
Operator ID: Instrument ID: AFID

Method: \\ChromNA\Canton\ChromData\AFID\20180604-76559.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 05-Jun-2018 05:20:01 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK013

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.391	10.392	-0.001	7996399	40.0	33.8	
A 5 C6-C10	11.987	(6.939-17.040)		161528697	800.0	819.3	✓
A 1 C6-C12	13.230	(6.939-19.557)		185776800	800.0	819.4	

Reagents:

VGGASCHK_00080 Amount Added: 40.00 Units: uL
VGGASURROGATE_00046 Amount Added: 1.00 Units: uL Run Reagent

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVRT 240-329811/4 Calibration Date: 06/04/2018 07:25

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0060404.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		210465		855	800	6.9	20.0
C6-C12	Lin1		237428		840	800	5.0	20.0
Trifluorotoluene (Surr)	Lin1		267743		45.8	40.0	14.5	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180604-76559.b\A0060404.D
Lims ID: ccvrt gas
Client ID:
Sample Type: CCVRT
Inject. Date: 04-Jun-2018 07:25:33 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0076559-004
Operator ID: Instrument ID: AFID
Sublist: chrom-A80218015*sub15

Method: \\ChromNA\Canton\ChromData\AFID\20180604-76559.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 04-Jun-2018 11:13:34 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK026

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.390	10.390	0.000	10709713	40.0	45.8	
A 5 C6-C10	11.987	(6.937-17.038)		168372275	800.0	855.5	
A 1 C6-C12	13.230	(6.937-19.523)		189942281	800.0	839.8	

Reagents:

VGGASCALNEW_00024 Amount Added: 40.00 Units: uL
VGGASURROGATE_00046 Amount Added: 1.00 Units: uL Run Reagent

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
DMW-7S-053118	240-96479-4	81
MSA-MW-5-053118	240-96479-5	81
	MB 240-329956/8-A	78
	LCS 240-329956/9-A	83

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: MB 240-329956/8-A

Matrix: Water Date Extracted: 06/04/2018 14:06

Lab File ID:(1) R060508.D Lab File ID:(2)

Date Analyzed:(1) 06/05/2018 17:23 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-329956/9-A	06/05/2018 17:50	
DMW-7S-053118	240-96479-4	06/05/2018 19:12	
MSA-MW-5-053118	240-96479-5	06/05/2018 19:39	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-329956/8-A

Matrix: Water | Lab File ID: R060508.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 250(mL) | Date Analyzed: 06/05/2018 17:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R060509.D

Lab ID: LCS 240-329956/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1510	76	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Sample No.: CCV 240-330133/7 Date Analyzed: 06/05/2018 16:56

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R060507.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-330133/7 CCVRT		06/05/2018 16:56	R060507.D	8.42		
MB 240-329956/8-A		06/05/2018 17:23	R060508.D	8.42		
LCS 240-329956/9-A		06/05/2018 17:50	R060509.D	8.42		
240-96479-4	DMW-7S-053118	06/05/2018 19:12	R060512.D	8.42		
240-96479-5	MSA-MW-5-053118	06/05/2018 19:39	R060513.D	8.42		
CCV 240-330133/17		06/05/2018 21:28	R060517.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330133/7 Calibration Date: 06/05/2018 16:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	831614		97800	100000	-2.2	20.0
o-Terphenyl (Surr)	Ave	998632	954101		7640	8000	-4.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330133/7 Calibration Date: 06/05/2018 16:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060507.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330133/17 Calibration Date: 06/05/2018 21:28

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060517.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	831384		97700	100000	-2.3	20.0
o-Terphenyl (Surr)	Ave	998632	968072		7760	8000	-3.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330133/17 Calibration Date: 06/05/2018 21:28

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060517.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: RTC 240-330133/6 Date Analyzed: 06/05/2018 16:29

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R060506.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.79

Initial Calibration: 3/15/2018

COMPOUND OF INTEREST AREA	COMPOUND AMOUNT PPB	RRF
17761523	20	888076
32600967	40	815024
84037623	100	840376
170350754	200	851754
342974021	400	857435
	AVERAGE RRF	850533
	%RSD	3.1233

SAMPLE CALC **SAMPLE ID** **DMW-7S-053118**

DILUTION	COMPOUND OF INTEREST AREA	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB
1	40458235	5000	850533	914.77
	Amt Injected (ul)	**VOLUME OF SAMPLE**		
	1	260		

CCV RRF 6/05/18 @ 16:56

COMPOUND OF INTEREST AREA	COMPOUND AMOUNT PPB	RRF
83161401	100	831614.0100

% DIFFERENCE CCV 6/05/18 @ 16:56	CALC AMOUNT	SPIKE AMOUNT
2.224377399	97800	100000

SAMPLE CALC **SURROGATE O-TERPHENYL** **SAMPLE DMW-7S-053118**

DILUTION	COMPOUND OF INTEREST AREA	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB	
1	6502131	5000	998632.1750		
	Amt Injected (ul)	**VOLUME OF SAMPLE**		6.5110	ng/uL
	1	260			

SURROGATE %R 81.39 **SPIKE AMOUNT (PPB)** 8

SAMPLE CALC **SAMPLE ID** **LCS 240-329956/9-A**

DILUTION	COMPOUND OF INTEREST AREA	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB	
1	64423922	5000	850533.0755	1514.91	
	Amt Injected (ul)	**VOLUME OF SAMPLE**		75.7453459	ng/uL
	1	250			

LCS %R	SPIKE AMOUNT (PPB)	LCS CONCENTRATION
75.50	2000	1510.00

FORM VI

DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA

CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031507.D
Lims ID: STD1 DIESEL
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Mar-2018 17:54:05 ALS Bottle#: 57 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0074106-007
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 16-Mar-2018 12:22:58 Calib Date: 15-Mar-2018 19:43:06
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D

Column 1 : Det: GC FID1A
Process Host: XAWRK059

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A	32 Diesel						
	7.578	(3.364-11.792)		17761523	20.0	20.9	
$	37 o-Terphenyl						
	8.427	8.427	0.000	1517582	1.60	1.52	

Reagents:

SGDROCAL_00033 Amount Added: 2.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031508.D
Lims ID: STD2 DIESEL
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Mar-2018 18:21:21 ALS Bottle#: 58 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0074106-008
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 16-Mar-2018 12:23:00 Calib Date: 15-Mar-2018 19:43:06
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D

Column 1 : Det: GC FID1A
Process Host: XAWRK059

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A	32 Diesel						
	7.578	(3.364-11.792)		32600967	40.0	38.3	
$	37 o-Terphenyl						
	8.425	8.425	0.000	3251803	3.20	3.26	

Reagents:

SGDROCAL_00033 Amount Added: 4.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031509.D
Lims ID: STD3 DIESEL
Client ID:
Sample Type: ICRT Calib Level: 3
Inject. Date: 15-Mar-2018 18:48:29 ALS Bottle#: 59 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0074106-009
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 16-Mar-2018 12:23:02 Calib Date: 15-Mar-2018 19:43:06
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D

Column 1 : Det: GC FID1A
Process Host: XAWRK059

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A	32 Diesel						
	7.578	(3.364-11.792)		84037623	100.0	98.8	
$	37 o-Terphenyl						
	8.424	8.424	0.000	7809784	8.00	7.82	

Reagents:

SGDROCAL_00033 Amount Added: 10.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031510.D
Lims ID: STD4 DIESEL
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Mar-2018 19:15:56 ALS Bottle#: 60 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0074106-010
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 16-Mar-2018 12:23:04 Calib Date: 15-Mar-2018 19:43:06
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D

Column 1 : Det: GC FID1A
Process Host: XAWRK059

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A 32 Diesel						
7.578	(3.364-11.792)		170350754	200.0	200.3	
$ 37 o-Terphenyl						
8.427	8.424	0.003	16242913	16.0	16.3	

Reagents:

SGDROCAL_00033 Amount Added: 20.00 Units: uL

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D
Lims ID: STD5 DIESEL
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Mar-2018 19:43:06 ALS Bottle#: 61 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0074106-011
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 16-Mar-2018 12:23:07 Calib Date: 15-Mar-2018 19:43:06
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180315-74106.b\R0031511.D

Column 1 : Det: GC FID1A
Process Host: XAWRK059

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A 32 Diesel						
7.578	(3.364-11.792)		342974021	400.0	403.2	
$ 37 o-Terphenyl						
8.432	8.424	0.008	33186516	32.0	33.2	

Reagents:

SGDROCAL_00033 Amount Added: 40.00 Units: uL

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7S-053118 | Lab Sample ID: 240-96479-4

Matrix: Water | Lab File ID: R060512.D

Analysis Method: 8015C | Date Collected: 05/31/2018 12:01

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 260(mL) | Date Analyzed: 06/05/2018 19:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	910		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	81		37-130

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\R060512.D
Lims ID: 240-96479-H-4-A
Client ID: DMW-7S-053118
Sample Type: Client
Inject. Date: 05-Jun-2018 19:12:26 ALS Bottle#: 62 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076638-012
Operator ID: Instrument ID: A2HP14R

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 07-Jun-2018 12:25:34 Calib Date: 09-May-2018 13:50:52
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180509-75713.b\R050911.D

Column 1 : Det: GC FID1A
Process Host: XAWRK001

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ng/ul	Flags
A	32 Diesel					
	7.576	(3.367-11.785)		37576696	44.2	
A	36 C10-C32					
	8.245	(3.367-13.123)		40458235	47.6	
$	37 o-Terphenyl					
	8.419	8.420	-0.001	6502131	6.51	

TestAmerica Canton
Recovery Report

Data File:	\\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\R060512.D				
Lims ID:	240-96479-H-4-A				
Client ID:	DMW-7S-053118				
Sample Type:	Client				
Inject. Date:	05-Jun-2018 19:12:26	ALS Bottle#:	62	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	240-0076638-012				
Operator ID:		Instrument ID:	A2HP14R		
Method:	\\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\TPH14RLVI.m				
Limit Group:	GC 8015C-D TPH LVI ICAL				
Last Update:	07-Jun-2018 12:25:34	Calib Date:	09-May-2018 13:50:52		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Canton\ChromData\A2HP14R\20180509-75713.b\R050911.D				
Column 1 :			Det: GC FID1A		
Process Host:	XAWRK001				

Compound	Amount Added	Amount Recovered	% Rec.
$ 37 o-Terphenyl	8.00	6.51	81.39

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 240-330133/7 Calibration Date: 06/05/2018 16:56

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R060507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	831614		97800	100000	-2.2	20.0
o-Terphenyl (Surr)	Ave	998632	954101		7640	8000	-4.5	20.0

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\R060507.D
Lims ID: CCV DIESEL
Client ID:
Sample Type: CCVRT
Inject. Date: 05-Jun-2018 16:56:32 ALS Bottle#: 57 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076638-007
Operator ID: Instrument ID: A2HP14R
Sublist: chrom-TPH14RLVI*sub1

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 07-Jun-2018 12:25:34 Calib Date: 09-May-2018 13:50:52
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180509-75713.b\R050911.D

Column 1 : Det: GC FID1A
Process Host: XAWRK001

First Level Reviewer: mathenys Date: 06-Jun-2018 14:52:26

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A	32 Diesel						
	7.576	(3.367-11.785)		83161401	100.0	97.8	
$	37 o-Terphenyl						
	8.420	8.420	0.000	7632806	8.00	7.64	

Reagents:

SGDROCAL_00034 Amount Added: 10.00 Units: uL

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R060509.D

Lab ID: LCS 240-329956/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1510	76	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-329956/9-A

Matrix: Water | Lab File ID: R060509.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 06/04/2018 14:06

Sample wt/vol: 250(mL) | Date Analyzed: 06/05/2018 17:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 330133 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\R060509.D
Lims ID: LCS 240-329956/9-A
Client ID:
Sample Type: LCS
Inject. Date: 05-Jun-2018 17:50:59 ALS Bottle#: 59 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 240-0076638-009
Operator ID: Instrument ID: A2HP14R

Method: \\ChromNA\Canton\ChromData\A2HP14R\20180605-76638.b\TPH14RLVI.m
Limit Group: GC 8015C-D TPH LVI ICAL
Last Update: 07-Jun-2018 12:25:34 Calib Date: 09-May-2018 13:50:52
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A2HP14R\20180509-75713.b\R050911.D

Column 1 : Det: GC FID1A
Process Host: XAWRK001

First Level Reviewer: mathenys Date: 06-Jun-2018 14:52:48

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
A	32 Diesel						
	7.576	(3.367-11.785)		64423922	100.0	75.7 √	
$	37 o-Terphenyl						
	8.420	8.420	0.000	6648234	8.00	6.66	

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG No.:

Project: MSA GW 2018 - Dump Rd.

Client Sample ID	Lab Sample ID
DMW-7I-053118	240-96479-2
DMW-7D-053118	240-96479-3
DMW-7S-053118	240-96479-4
MSA-MW-5-053118	240-96479-5

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-331151/5 06/11/2018 14:45				CCV 240-331151/22 06/11/2018 16:34				CCV 240-331151/34 06/11/2018 17:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.9		40.0	100	49.6		50.0	99	50.4		50.0	101
Arsenic	40.5		40.0	101	50.4		50.0	101	49.8		50.0	100
Barium	39.9		40.0	100	49.7		50.0	99	49.8		50.0	100
Beryllium	40.2		40.0	101	55.1		50.0	110	55.2		50.0	110
Cadmium	40.3		40.0	101	49.9		50.0	100	50.3		50.0	101
Cobalt	40.5		40.0	101	50.2		50.0	100	50.7		50.0	101
Copper	41.5		40.0	104	50.3		50.0	101	51.6		50.0	103
Dissolved Iron	9950		10000	100	12200		12500	97	12200		12500	97
Dissolved Lead	40.7		40.0	102	50.2		50.0	100	51.3		50.0	103
Dissolved Manganese	199		200	100	253		250	101	253		250	101
Dissolved Molybdenum	39.1		40.0	98	50.8		50.0	102	51.2		50.0	102
Dissolved Nickel	39.5		40.0	99	50.5		50.0	101	51.3		50.0	103
Dissolved Selenium	40.2		40.0	101	50.2		50.0	100	49.6		50.0	99
Dissolved Silver	39.9		40.0	100	50.3		50.0	101	51.0		50.0	102
Dissolved Thallium	39.8		40.0	100	49.7		50.0	99	51.1		50.0	102
Dissolved Vanadium	39.8		40.0	100	49.6		50.0	99	50.4		50.0	101
Zinc	39.4		40.0	98	49.4		50.0	99	50.5		50.0	101
Chromium	39.6		40.0	99	49.7		50.0	99	50.6		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	CCV 240-331151/46 06/11/2018 19:08				CCV 240-331151/59 06/11/2018 20:32				CCV 240-331151/71 06/11/2018 21:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.8		50.0	102	50.8		50.0	102	50.9		50.0	102
Arsenic	50.4		50.0	101	49.9		50.0	100	50.1		50.0	100
Barium	50.0		50.0	100	49.6		50.0	99	50.5		50.0	101
Beryllium	55.0		50.0	110	55.6		50.0	111	58.8		50.0	118
Cadmium	49.8		50.0	100	50.7		50.0	101	50.2		50.0	100
Cobalt	51.3		50.0	103	50.3		50.0	101	50.1		50.0	100
Copper	51.9		50.0	104	50.7		50.0	101	50.1		50.0	100
Dissolved Iron	12100		12500	97	12000		12500	96	11700		12500	94
Dissolved Lead	51.0		50.0	102	49.8		50.0	100	51.6		50.0	103
Dissolved Manganese	257		250	103	262		250	105	252		250	101
Dissolved Molybdenum	51.2		50.0	102	50.6		50.0	101	50.5		50.0	101
Dissolved Nickel	51.9		50.0	104	50.5		50.0	101	50.6		50.0	101
Dissolved Selenium	51.3		50.0	103	48.2		50.0	96	51.3		50.0	103
Dissolved Silver	50.8		50.0	102	50.8		50.0	102	50.4		50.0	101
Dissolved Thallium	50.4		50.0	101	49.7		50.0	99	51.2		50.0	102
Dissolved Vanadium	50.0		50.0	100	48.9		50.0	98	49.5		50.0	99
Zinc	50.0		50.0	100	50.5		50.0	101	50.0		50.0	100
Chromium	50.1		50.0	100	49.7		50.0	99	49.5		50.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-331151/7 06/11/2018 14:58				CCVL 240-331151/48 06/11/2018 19:21				CCVL 240-331151/85 06/11/2018 23:18			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.92	J	2.00	96	1.95	J	2.00	97	1.95	J	2.00	97
Arsenic	4.88	J	5.00	98	4.68	J	5.00	94	5.01		5.00	100
Barium	4.77	J	5.00	95	4.86	J	5.00	97	4.92	J	5.00	98
Beryllium	1.02		1.00	102	1.07		1.00	107	1.38		1.00	138
Cadmium	1.00		1.00	100	0.899	J	1.00	90	0.971	J	1.00	97
Cobalt	0.992	J	1.00	99	1.02		1.00	102	0.972	J	1.00	97
Copper	1.97	J	2.00	99	1.98	J	2.00	99	1.82	J	2.00	91
Dissolved Iron	89.6	J	100	90	87.3	J	100	87	84.3	J	100	84
Dissolved Lead	1.01		1.00	101	1.02		1.00	102	1.04		1.00	104
Dissolved Manganese	4.05	J	5.00	81	4.23	J	5.00	85	4.44	J	5.00	89
Dissolved Molybdenum	4.75	J	5.00	95	4.88	J	5.00	98	4.64	J	5.00	93
Dissolved Nickel	1.74	J	2.00	87	1.67	J	2.00	84	1.62	J	2.00	81
Dissolved Selenium	4.78	J	5.00	96	4.83	J	5.00	97	5.20		5.00	104
Dissolved Silver	0.949	J	1.00	95	0.981	J	1.00	98	0.938	J	1.00	94
Dissolved Thallium	0.975	J	1.00	98	0.985	J	1.00	99	1.02		1.00	102
Dissolved Vanadium	4.97	J	5.00	99	4.87	J	5.00	97	4.87	J	5.00	97
Zinc	18.5	J	20.0	92	18.0	J	20.0	90	17.6	J	20.0	88

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-331451/5 06/12/2018 14:05				CCV 240-331451/22 06/12/2018 15:55				CCV 240-331451/34 06/12/2018 17:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Chromium	41.1		40.0	103	51.9		50.0	104	51.0		50.0	102
Antimony	40.4		40.0	101	51.1		50.0	102	50.4		50.0	101
Arsenic	41.2		40.0	103	50.3		50.0	101	50.4		50.0	101
Barium	40.7		40.0	102	50.1		50.0	100	49.8		50.0	100
Beryllium	40.1		40.0	100	50.4		50.0	101	52.0		50.0	104
Cadmium	40.6		40.0	101	50.6		50.0	101	50.9		50.0	102
Cobalt	40.9		40.0	102	51.5		50.0	103	51.4		50.0	103
Copper	42.1		40.0	105	51.7		50.0	103	51.8		50.0	104
Iron	10100		10000	101	12700		12500	102	12500		12500	100
Lead	41.7		40.0	104	51.4		50.0	103	50.9		50.0	102
Manganese	202		200	101	254		250	102	252		250	101
Molybdenum	39.8		40.0	100	51.4		50.0	103	51.4		50.0	103
Nickel	41.5		40.0	104	52.1		50.0	104	52.6		50.0	105
Selenium	41.2		40.0	103	49.9		50.0	100	51.7		50.0	103
Silver	40.5		40.0	101	51.2		50.0	102	50.7		50.0	101
Thallium	40.6		40.0	102	51.1		50.0	102	50.5		50.0	101
Vanadium	40.7		40.0	102	51.5		50.0	103	50.2		50.0	100
Zinc	40.2		40.0	101	50.5		50.0	101	50.8		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	CCV 240-331451/46 06/12/2018 18:29											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Chromium	50.7		50.0	101								
Antimony	50.5		50.0	101								
Arsenic	50.3		50.0	101								
Barium	50.4		50.0	101								
Beryllium	51.1		50.0	102								
Cadmium	49.5		50.0	99								
Cobalt	50.8		50.0	102								
Copper	51.2		50.0	102								
Iron	12300		12500	99								
Lead	50.6		50.0	101								
Manganese	253		250	101								
Molybdenum	50.8		50.0	102								
Nickel	51.9		50.0	104								
Selenium	51.6		50.0	103								
Silver	50.4		50.0	101								
Thallium	50.2		50.0	100								
Vanadium	50.2		50.0	100								
Zinc	50.9		50.0	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-331451/7 06/12/2018 14:18				CCVL 240-331451/48 06/12/2018 18:41							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Chromium	1.98	J	2.00	99	1.93	J	2.00	97				
Antimony	1.94	J	2.00	97	1.97	J	2.00	98				
Arsenic	4.87	J	5.00	97	4.98	J	5.00	100				
Barium	4.95	J	5.00	99	4.89	J	5.00	98				
Beryllium	0.994	J	1.00	99	0.932	J	1.00	93				
Cadmium	0.936	J	1.00	94	0.964	J	1.00	96				
Cobalt	1.02		1.00	102	1.02		1.00	102				
Copper	2.00		2.00	100	1.99	J	2.00	100				
Iron	97.1	J	100	97	97.1	J	100	97				
Lead	1.04		1.00	104	1.05		1.00	105				
Manganese	4.65	J	5.00	93	4.69	J	5.00	94				
Molybdenum	4.87	J	5.00	97	4.80	J	5.00	96				
Nickel	1.98	J	2.00	99	2.05		2.00	103				
Selenium	4.78	J	5.00	96	4.65	J	5.00	93				
Silver	1.03		1.00	103	0.996	J	1.00	100				
Thallium	1.01		1.00	101	1.02		1.00	102				
Vanadium	5.11		5.00	102	4.94	J	5.00	99				
Zinc	19.8	J	20.0	99	19.0	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTHgICV_00001_00347 Concentration Units: ug/L

CCV Source: MTHGCALW_01840

Analyte	ICV 240-329940/7-A 06/05/2018 07:49				CCV 240-329940/10-A 06/05/2018 14:44				CCV 240-329940/10-A 06/05/2018 15:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.09		5.00	102	5.16		5.00	103	5.09		5.00	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTHgICV_00001_00347 Concentration Units: ug/L

CCV Source: MTHGCALW_01840

Analyte	CCV 240-329940/10-A 06/05/2018 15:25											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.21		5.00	104								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-329940/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01840

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.234		117	50-150
Mercury	0.200	0.234		117	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-331151/6 06/11/2018 14:52		CCB 240-331151/23 06/11/2018 16:41		CCB 240-331151/35 06/11/2018 17:58		CCB 240-331151/47 06/11/2018 19:14	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.356	J	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.216	J	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-331151/60 06/11/2018 20:38		CCB 240-331151/72 06/11/2018 21:55					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U				
Arsenic	5.0	0.75	U	0.75	U				
Barium	5.0	2.2	U	2.2	U				
Beryllium	1.0	0.31	U	0.816	J				
Cadmium	1.0	0.21	U	0.21	U				
Cobalt	1.0	0.19	U	0.19	U				
Copper	2.0	1.7	U	1.7	U				
Dissolved Iron	100	47	U	47	U				
Dissolved Lead	1.0	0.45	U	0.45	U				
Dissolved Manganese	5.0	2.1	U	2.1	U				
Dissolved Molybdenum	5.0	1.1	U	1.1	U				
Dissolved Nickel	2.0	1.5	U	1.5	U				
Dissolved Selenium	5.0	0.89	U	0.89	U				
Dissolved Silver	1.0	0.053	U	0.053	U				
Dissolved Thallium	1.0	0.20	U	0.20	U				
Dissolved Vanadium	5.0	0.82	U	0.82	U				
Zinc	20	15	U	15	U				
Chromium	2.0	0.98	U	0.98	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-331451/6 06/12/2018 14:12		CCB 240-331451/23 06/12/2018 16:01		CCB 240-331451/35 06/12/2018 17:18		CCB 240-331451/47 06/12/2018 18:35	
		Found	C	Found	C	Found	C	Found	C
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-329940/8-A 06/05/2018 07:51		CCB 240-329940/11-A 06/05/2018 14:46		CCB 240-329940/11-A 06/05/2018 15:11		CCB 240-329940/11-A 06/05/2018 15:27	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329861/1-A

Instrument Code: I11 Batch No.: 331151

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329861/1-A

Instrument Code: I11 Batch No.: 331451

CAS No.	Analyte	Concentration	C	Q	Method
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-329865/1-A

Instrument Code: H3 Batch No.: 330279

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICSA 240-331151/8 Instrument ID: I11

Lab File ID: I11061118A.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0130**	
Arsenic		**0.0720**	
Barium		**-0.0420**	
Beryllium		**-0.0320**	
Cadmium		**0.369**	
Cobalt		**0.0490**	
Copper		**0.324**	
Dissolved Iron	**50000**	**49530**	**99**
Dissolved Lead		**0.0550**	
Dissolved Manganese		**-0.298**	
Dissolved Molybdenum	**1000**	**1000**	**100**
Dissolved Nickel		**-0.237**	
Dissolved Selenium		**0.0570**	
Dissolved Silver		**0.0050**	
Dissolved Thallium		**-0.0260**	
Dissolved Vanadium		**-0.0030**	
Zinc		**-1.72**	
Aluminum	*50000*	*50720*	*101*
Boron		*0.312*	
Calcium	*50000*	*47170*	*94*
Chromium		*-0.578*	
Magnesium	*50000*	*49610*	*99*
Potassium	*50000*	*50370*	*101*
Sodium	*50000*	*49970*	*100*
Strontium		*0.412*	
Tin		*-0.754*	
Titanium	*1000*	*974*	*97*
Tungsten		*0.106*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICSAB 240-331151/9 Instrument ID: I11

Lab File ID: I11061118A.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**101**	**101**
Barium	**100**	**98.2**	**98**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**98.6**	**99**
Cobalt	**100**	**97.8**	**98**
Copper	**100**	**97.9**	**98**
Dissolved Iron	**50000**	**48550**	**97**
Dissolved Lead	**100**	**99.1**	**99**
Dissolved Manganese	**100**	**99.6**	**100**
Dissolved Molybdenum	**1100**	**1086**	**99**
Dissolved Nickel	**100**	**97.0**	**97**
Dissolved Selenium	**100**	**97.9**	**98**
Dissolved Silver	**100**	**98.4**	**98**
Dissolved Thallium	**100**	**97.3**	**97**
Dissolved Vanadium	**100**	**95.5**	**96**
Zinc	**100**	**98.6**	**99**
Aluminum	*50000*	*50090*	*100*
Boron	*100*	*98.0*	*98*
Calcium	*50000*	*46420*	*93*
Chromium	*100*	*96.8*	*97*
Magnesium	*50000*	*49000*	*98*
Potassium	*50000*	*49310*	*99*
Sodium	*50000*	*49340*	*99*
Strontium	*100*	*98.4*	*98*
Tin	*100*	*99.7*	*100*
Titanium	*1100*	*1053*	*96*
Tungsten	*100*	*97.2*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICSA 240-331451/8 Instrument ID: I11

Lab File ID: I11061218B.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Chromium		**0.0230**	
Aluminum	*50000*	*49240*	*98*
Antimony		*0.0170*	
Arsenic		*-0.0180*	
Barium		*0.0080*	
Beryllium		*-0.0210*	
Boron		*0.0600*	
Cadmium		*0.384*	
Calcium	*50000*	*49240*	*98*
Cobalt		*0.0460*	
Copper		*0.301*	
Iron	*50000*	*49250*	*99*
Lead		*0.0650*	
Magnesium	*50000*	*49460*	*99*
Manganese		*0.0720*	
Molybdenum	*1000*	*1003*	*100*
Nickel		*0.107*	
Potassium	*50000*	*48200*	*96*
Selenium		*0.0090*	
Silver		*0.0040*	
Sodium	*50000*	*49640*	*99*
Strontium		*0.440*	
Thallium		*-0.0160*	
Tin		*-0.194*	
Titanium	*1000*	*977*	*98*
Tungsten		*0.0710*	
Vanadium		*0.0630*	
Zinc		*-0.276*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICSAB 240-331451/9 Instrument ID: I11

Lab File ID: I11061218B.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Chromium	**100**	**98.3**	**98**
Aluminum	*50000*	*49740*	*99*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*102*	*102*
Barium	*100*	*99.0*	*99*
Beryllium	*100*	*101*	*101*
Boron	*100*	*91.5*	*92*
Cadmium	*100*	*99.5*	*100*
Calcium	*50000*	*48860*	*98*
Cobalt	*100*	*99.6*	*100*
Copper	*100*	*100*	*100*
Iron	*50000*	*49450*	*99*
Lead	*100*	*99.4*	*99*
Magnesium	*50000*	*49930*	*100*
Manganese	*100*	*98.5*	*98*
Molybdenum	*1100*	*1096*	*100*
Nickel	*100*	*101*	*101*
Potassium	*50000*	*47890*	*96*
Selenium	*100*	*98.7*	*99*
Silver	*100*	*98.6*	*99*
Sodium	*50000*	*49650*	*99*
Strontium	*100*	*98.7*	*99*
Thallium	*100*	*98.1*	*98*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1068*	*97*
Tungsten	*100*	*99.6*	*100*
Vanadium	*100*	*98.3*	*98*
Zinc	*100*	*98.7*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329861/2-A

Lab Name: TestAmerica Canton | Job No.: 240-96479-1

Sample Matrix: Water | LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.4		99	80	120		6020A
Dissolved Antimony	100	99.4		99	80	120		6020A
Arsenic	1000	978		98	80	120		6020A
Dissolved Arsenic	1000	978		98	80	120		6020A
Barium	1000	972		97	80	120		6020A
Dissolved Barium	1000	972		97	80	120		6020A
Beryllium	1000	1150		115	80	120		6020A
Dissolved Beryllium	1000	1150		115	80	120		6020A
Cadmium	1000	1020		102	80	120		6020A
Dissolved Cadmium	1000	1020		102	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Copper	1000	1040		104	80	120		6020A
Dissolved Copper	1000	1040		104	80	120		6020A
Dissolved Iron	10000	9720		97	80	120		6020A
Iron	10000	9720		97	80	120		6020A
Dissolved Manganese	1000	1000		100	80	120		6020A
Manganese	1000	1000		100	80	120		6020A
Dissolved Molybdenum	100	97.9		98	80	120		6020A
Molybdenum	100	97.9		98	80	120		6020A
Dissolved Nickel	1000	1020		102	80	120		6020A
Nickel	1000	1020		102	80	120		6020A
Dissolved Lead	1000	1030		103	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Dissolved Selenium	1000	968		97	80	120		6020A
Selenium	1000	968		97	80	120		6020A
Dissolved Thallium	250	251		101	80	120		6020A
Thallium	250	251		101	80	120		6020A
Dissolved Vanadium	1000	965		97	80	120		6020A
Dissolved Zinc	1000	1030		103	80	120		6020A
Vanadium	1000	965		97	80	120		6020A
Zinc	1000	1030		103	80	120		6020A
Dissolved Silver	100	105		105	80	120		6020A
Silver	100	105		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329861/2-A

Lab Name: TestAmerica Canton Job No.: 240-96479-1

Sample Matrix: Water LCS Source: MTICPMSA_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Chromium	1000	1040		104	80	120		6020A
Dissolved Chromium	1000	1040		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-329865/2-A

Lab Name: TestAmerica Canton Job No.: 240-96479-1

Sample Matrix: Water LCS Source: MTHGCALW_01840

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.61		112	80	120		7470A
Mercury, Dissolved	5.00	5.61		112	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-96479-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-96479-1

SDG No.:

Instrument ID: I11 Date: 05/22/2018 10:50

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020A
Dissolved Antimony		1000	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		2000	6020A
Dissolved Cobalt		2000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		3000	6020A
Lead		3000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		500	6020A
Silver		500	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329861/1-A	06/04/2018 14:00	329861		50	50
LCS 240-329861/2-A	06/04/2018 14:00	329861		50	50
240-96479-2	06/04/2018 14:00	329861		50	50
240-96479-2	06/04/2018 14:00	329861		50	50
240-96479-3	06/04/2018 14:00	329861		50	50
240-96479-3	06/04/2018 14:00	329861		50	50
240-96479-4	06/04/2018 14:00	329861		50	50
240-96479-4	06/04/2018 14:00	329861		50	50
240-96479-5	06/04/2018 14:00	329861		50	50
240-96479-5	06/04/2018 14:00	329861		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-329865/1-A	06/04/2018 12:00	329865		50	50
LCS 240-329865/2-A	06/04/2018 12:00	329865		50	50
240-96479-2	06/04/2018 12:00	329865		50	50
240-96479-2	06/04/2018 12:00	329865		50	50
240-96479-3	06/04/2018 12:00	329865		50	50
240-96479-3	06/04/2018 12:00	329865		50	50
240-96479-4	06/04/2018 12:00	329865		50	50
240-96479-4	06/04/2018 12:00	329865		50	50
240-96479-5	06/04/2018 12:00	329865		50	50
240-96479-5	06/04/2018 12:00	329865		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/11/2018 14:20 End Date: 06/12/2018 02:25

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ICIS 240-331151/1			14:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD2 240-331151/2 IC	1		14:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD3 240-331151/3 IC	1		14:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD4 240-331151/4 IC	1		14:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICV 240-331151/5	1		14:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICB 240-331151/6	1		14:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICVL 240-331151/7	1		14:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-331151/8	1		15:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ICSAB 240-331151/9	1		15:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-331151/10			15:17																									
CCB 240-331151/11			15:24																									
ZZZZZZ			15:30																									
ZZZZZZ			15:37																									
ZZZZZZ			15:43																									
ZZZZZZ			15:49																									
ZZZZZZ			15:56																									
ZZZZZZ			16:02																									
ZZZZZZ			16:09																									
ZZZZZZ			16:15																									
ZZZZZZ			16:21																									
ZZZZZZ			16:28																									
CCV 240-331151/22	1		16:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-331151/23	1		16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			16:47																									
ZZZZZZ			16:54																									
ZZZZZZ			17:00																									
MB 240-329861/1-A	1	R	17:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
LCS 240-329861/2-A	1	R	17:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			17:19																									
ZZZZZZ			17:26																									
ZZZZZZ			17:32																									
ZZZZZZ			17:38																									
ZZZZZZ			17:45																									
CCV 240-331151/34	1		17:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-331151/35	1		17:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			18:04																									
ZZZZZZ			18:10																									
ZZZZZZ			18:17																									
240-96479-2	1	R	18:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-96479-2	1	D	18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-96479-3	1	R	18:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-96479-3	1	D	18:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/11/2018 14:20 End Date: 06/12/2018 02:25

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
240-96479-4	1	R	18:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96479-4	1	D	18:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96479-5	1	R	19:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-331151/46	1		19:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-331151/47	1		19:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-331151/48	1		19:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			19:27																								
ZZZZZZ			19:34																								
ZZZZZZ			19:40																								
ZZZZZZ			19:47																								
ZZZZZZ			19:53																								
ZZZZZZ			19:59																								
ZZZZZZ			20:06																								
ZZZZZZ			20:12																								
ZZZZZZ			20:19																								
ZZZZZZ			20:25																								
CCV 240-331151/59	1		20:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-331151/60	1		20:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-96479-5	1	D	20:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			20:51																								
ZZZZZZ			20:57																								
ZZZZZZ			21:03																								
ZZZZZZ			21:10																								
ZZZZZZ			21:16																								
ZZZZZZ			21:23																								
ZZZZZZ			21:29																								
ZZZZZZ			21:36																								
ZZZZZZ			21:42																								
CCV 240-331151/71	1		21:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-331151/72	1		21:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			22:01																								
ZZZZZZ			22:08																								
ZZZZZZ			22:14																								
ZZZZZZ			22:20																								
ZZZZZZ			22:27																								
ZZZZZZ			22:33																								
ZZZZZZ			22:40																								
ZZZZZZ			22:46																								
ZZZZZZ			22:53																								
ZZZZZZ			22:59																								
CCV 240-331151/83			23:05																								
CCB 240-331151/84			23:12																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/11/2018 14:20 End Date: 06/12/2018 02:25

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
CCVL 240-331151/85	1		23:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:25																									
ZZZZZZ			23:31																									
ZZZZZZ			23:37																									
ZZZZZZ			23:44																									
ZZZZZZ			23:50																									
ZZZZZZ			23:57																									
ZZZZZZ			00:03																									
ZZZZZZ			00:10																									
ZZZZZZ			00:16																									
ZZZZZZ			00:22																									
CCV 240-331151/96			00:29																									
CCB 240-331151/97			00:35																									
ZZZZZZ			00:42																									
ZZZZZZ			00:48																									
ZZZZZZ			00:55																									
ZZZZZZ			01:01																									
ZZZZZZ			01:08																									
ZZZZZZ			01:14																									
ZZZZZZ			01:20																									
ZZZZZZ			01:27																									
ZZZZZZ			01:33																									
ZZZZZZ			01:40																									
ZZZZZZ			01:46																									
CCV 240-331151/109			01:53																									
CCB 240-331151/110			01:59																									
ZZZZZZ			02:05																									
ZZZZZZ			02:12																									
CCV 240-331151/113			02:18																									
CCB 240-331151/114			02:25																									

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/12/2018 13:40 End Date: 06/13/2018 10:20

Lab Sample Id	D/F	Type	Time	Analytes
				Cr
ICIS 240-331451/1			13:40	X
STD2 240-331451/2 IC	1		13:46	X
STD3 240-331451/3 IC	1		13:53	X
STD4 240-331451/4 IC	1		13:59	X
ICV 240-331451/5	1		14:05	X
ICB 240-331451/6	1		14:12	X
ICVL 240-331451/7	1		14:18	X
ICSA 240-331451/8	1		14:25	X
ICSAB 240-331451/9	1		14:31	X
CCV 240-331451/10			14:38	
CCB 240-331451/11			14:44	
ZZZZZZ			14:50	
ZZZZZZ			14:57	
ZZZZZZ			15:03	
ZZZZZZ			15:10	
ZZZZZZ			15:16	
ZZZZZZ			15:22	
ZZZZZZ			15:29	
ZZZZZZ			15:35	
ZZZZZZ			15:42	
ZZZZZZ			15:48	
CCV 240-331451/22	1		15:55	X
CCB 240-331451/23	1		16:01	X
MB 240-329861/1-A	1	R	16:07	X
LCS 240-329861/2-A	1	R	16:14	X
ZZZZZZ			16:20	
ZZZZZZ			16:27	
ZZZZZZ			16:33	
ZZZZZZ			16:40	
ZZZZZZ			16:46	
ZZZZZZ			16:52	
ZZZZZZ			16:59	
ZZZZZZ			17:05	
CCV 240-331451/34	1		17:12	X
CCB 240-331451/35	1		17:18	X
240-96479-2	1	R	17:24	X
240-96479-2	1	D	17:31	X
240-96479-3	1	R	17:37	X
240-96479-3	1	D	17:44	X
240-96479-4	1	R	17:50	X
240-96479-4	1	D	17:57	X
240-96479-5	1	R	18:03	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/12/2018 13:40 End Date: 06/13/2018 10:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr																								
240-96479-5	1	D	18:09	X																								
ZZZZZZ			18:16																									
ZZZZZZ			18:22																									
CCV 240-331451/46	1		18:29	X																								
CCB 240-331451/47	1		18:35	X																								
CCVL 240-331451/48	1		18:41	X																								
ZZZZZZ			18:48																									
ZZZZZZ			18:54																									
ZZZZZZ			19:01																									
ZZZZZZ			19:07																									
ZZZZZZ			19:14																									
ZZZZZZ			19:20																									
ZZZZZZ			19:26																									
ZZZZZZ			19:33																									
ZZZZZZ			19:39																									
ZZZZZZ			19:46																									
CCV 240-331451/59			19:52																									
CCB 240-331451/60			19:58																									
ZZZZZZ			20:05																									
ZZZZZZ			20:11																									
ZZZZZZ			20:18																									
ZZZZZZ			20:24																									
ZZZZZZ			20:30																									
ZZZZZZ			20:37																									
ZZZZZZ			20:43																									
ZZZZZZ			20:50																									
ZZZZZZ			20:56																									
ZZZZZZ			21:03																									
CCV 240-331451/71			21:09																									
CCB 240-331451/72			21:15																									
ZZZZZZ			21:22																									
ZZZZZZ			21:28																									
ZZZZZZ			21:35																									
ZZZZZZ			21:41																									
ZZZZZZ			21:47																									
ZZZZZZ			21:54																									
ZZZZZZ			22:00																									
ZZZZZZ			22:07																									
ZZZZZZ			22:13																									
ZZZZZZ			22:20																									
CCV 240-331451/83			22:26																									
CCB 240-331451/84			22:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/12/2018 13:40 End Date: 06/13/2018 10:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr																								
ZZZZZZ			22:39																									
ZZZZZZ			22:45																									
ZZZZZZ			22:52																									
ZZZZZZ			22:58																									
ZZZZZZ			23:04																									
ZZZZZZ			23:11																									
ZZZZZZ			23:17																									
ZZZZZZ			23:24																									
ZZZZZZ			23:30																									
ZZZZZZ			23:37																									
CCV 240-331451/95			23:43																									
CCB 240-331451/96			23:49																									
ZZZZZZ			23:56																									
ZZZZZZ			00:02																									
ZZZZZZ			00:09																									
ZZZZZZ			00:15																									
ZZZZZZ			00:22																									
ZZZZZZ			00:28																									
ZZZZZZ			00:34																									
ZZZZZZ			00:41																									
ZZZZZZ			00:47																									
ZZZZZZ			00:54																									
CCV 240-331451/107			01:00																									
CCB 240-331451/108			01:07																									
ZZZZZZ			01:13																									
ZZZZZZ			01:19																									
CCV 240-331451/111			01:26																									
CCB 240-331451/112			01:32																									
ICSA 240-331451/113			01:39																									
ICSAB 240-331451/114			01:45																									
ZZZZZZ			01:52																									
ZZZZZZ			01:58																									
ZZZZZZ			02:05																									
ZZZZZZ			02:11																									
ZZZZZZ			02:17																									
ZZZZZZ			02:24																									
ZZZZZZ			02:30																									
ZZZZZZ			02:37																									
CCV 240-331451/123			02:43																									
CCB 240-331451/124			02:50																									
ZZZZZZ			02:56																									
ZZZZZZ			03:02																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/12/2018 13:40 End Date: 06/13/2018 10:20

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cr																								
ZZZZZZ			03:09																									
ZZZZZZ			03:15																									
ZZZZZZ			03:22																									
ZZZZZZ			03:28																									
ZZZZZZ			03:35																									
ZZZZZZ			03:41																									
ZZZZZZ			03:48																									
ZZZZZZ			03:54																									
CCV 240-331451/135			04:00																									
CCB 240-331451/136			04:07																									
ZZZZZZ			04:13																									
ZZZZZZ			04:20																									
ZZZZZZ			04:26																									
ZZZZZZ			04:32																									
ZZZZZZ			04:39																									
ZZZZZZ			04:45																									
ZZZZZZ			04:52																									
ZZZZZZ			04:58																									
ZZZZZZ			05:05																									
ZZZZZZ			05:11																									
CCV 240-331451/147			05:18																									
CCB 240-331451/148			05:24																									
ZZZZZZ			05:30																									
ZZZZZZ			05:37																									
ZZZZZZ			05:43																									
ZZZZZZ			05:50																									
ZZZZZZ			05:56																									
ZZZZZZ			06:03																									
ZZZZZZ			06:09																									
ZZZZZZ			06:16																									
ZZZZZZ			06:22																									
ZZZZZZ			06:28																									
CCV 240-331451/159			06:35																									
CCB 240-331451/160			06:41																									
ZZZZZZ			06:48																									
ZZZZZZ			06:54																									
ZZZZZZ			07:01																									
ZZZZZZ			07:07																									
ZZZZZZ			07:13																									
ZZZZZZ			07:20																									
ZZZZZZ			07:26																									
ZZZZZZ			07:33																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 06/12/2018 13:40 End Date: 06/13/2018 10:20

Lab Sample Id	D/F	Type	Time	Analytes
				Cr
ZZZZZZ			07:39	
ZZZZZZ			07:46	
CCV 240-331451/171			07:52	
CCB 240-331451/172			07:59	
ZZZZZZ			08:05	
ZZZZZZ			08:11	
ZZZZZZ			08:18	
CCV 240-331451/176			08:24	
CCB 240-331451/177			08:31	
ZZZZZZ			08:37	
ZZZZZZ			08:44	
ZZZZZZ			08:50	
ZZZZZZ			08:56	
ZZZZZZ			09:03	
ZZZZZZ			09:09	
ZZZZZZ			09:16	
ZZZZZZ			09:22	
ZZZZZZ			09:29	
ZZZZZZ			09:35	
CCV 240-331451/188			09:42	
CCB 240-331451/189			09:48	
CCVL 240-331451/190			09:54	
ZZZZZZ			10:20	

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/05/2018 07:33 End Date: 06/05/2018 16:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-329940/1-A			07:33	X																								
IC 240-329940/2-A			07:35	X																								
IC 240-329940/3-A			07:37	X																								
IC 240-329940/4-A			07:39	X																								
IC 240-329940/5-A			07:41	X																								
IC 240-329940/6-A			07:43	X																								
ICV 240-329940/7-A	1		07:49	X																								
ICB 240-329940/8-A	1		07:51	X																								
CRA 240-329940/9-A	1		07:54	X																								
CCV 240-329940/10-A			07:56																									
CCB 240-329940/11-A			07:58																									
CCV 240-329940/10-A			08:00																									
CCB 240-329940/11-A			08:02																									
ZZZZZZ			12:36																									
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
ZZZZZZ			12:50																									
ZZZZZZ			12:52																									
ZZZZZZ			12:54																									
CCV 240-329940/10-A			12:56																									
CCB 240-329940/11-A			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
CCV 240-329940/10-A			13:14																									
CCB 240-329940/11-A			13:16																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:53																									
CCV 240-329940/10-A			13:56																									
CCB 240-329940/11-A			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/05/2018 07:33 End Date: 06/05/2018 16:38

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			14:06	
ZZZZZZ			14:08	
ZZZZZZ			14:10	
ZZZZZZ			14:12	
ZZZZZZ			14:14	
ZZZZZZ			14:16	
ZZZZZZ			14:18	
CCV 240-329940/10-A			14:20	
CCB 240-329940/11-A			14:22	
ZZZZZZ			14:25	
ZZZZZZ			14:27	
ZZZZZZ			14:29	
ZZZZZZ			14:31	
ZZZZZZ			14:33	
ZZZZZZ			14:35	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:40	
ZZZZZZ			14:42	
CCV 240-329940/10-A	1		14:44	X
CCB 240-329940/11-A	1		14:46	X
MB 240-329865/1-A	1	T	14:49	X
LCS 240-329865/2-A	1	T	14:51	X
ZZZZZZ			14:52	
ZZZZZZ			14:55	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
ZZZZZZ			15:01	
ZZZZZZ			15:03	
240-96479-2	1	T	15:05	X
240-96479-2	1	D	15:07	X
CCV 240-329940/10-A	1		15:09	X
CCB 240-329940/11-A	1		15:11	X
240-96479-3	1	T	15:13	X
240-96479-3	1	D	15:15	X
240-96479-4	1	T	15:17	X
240-96479-4	1	D	15:19	X
240-96479-5	1	T	15:21	X
240-96479-5	1	D	15:23	X
CCV 240-329940/10-A	1		15:25	X
CCB 240-329940/11-A	1		15:27	X
ZZZZZZ			15:50	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/05/2018 07:33 End Date: 06/05/2018 16:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:52																									
ZZZZZZ			15:54																									
ZZZZZZ			15:57																									
CCV 240-329940/10-A			15:58																									
CCB 240-329940/11-A			16:01																									
ZZZZZZ			16:03																									
ZZZZZZ			16:05																									
ZZZZZZ			16:07																									
ZZZZZZ			16:09																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
CCV 240-329940/10-A			16:22																									
CCB 240-329940/11-A			16:24																									
ZZZZZZ			16:27																									
ZZZZZZ			16:29																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
CCV 240-329940/10-A			16:36																									
CCB 240-329940/11-A			16:38																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/11/2018 End Date: 06/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-331151/2 IC	14:26	101		103		99		98			
STD3 240-331151/3 IC	14:33	101		101		97		95			
STD4 240-331151/4 IC	14:39	106		102		99		99			
ICV 240-331151/5	14:45	105		103		99		98			
ICB 240-331151/6	14:52	112		98		100		99			
ICVL 240-331151/7	14:58	108		102		99		100			
ICSA 240-331151/8	15:05	98		97		92		90			
ICSAB 240-331151/9	15:11	97		96		91		90			
CCV 240-331151/22	16:34	108		94		92		91			
CCB 240-331151/23	16:41	114		92		95		94			
MB 240-329861/1-A	17:06	104		91		86		88			
LCS 240-329861/2-A	17:13	93		88		82		82			
CCV 240-331151/34	17:51	96		89		86		86			
CCB 240-331151/35	17:58	103		90		88		89			
240-96479-2	18:23	83		88		80		82			
240-96479-2	18:30	85		89		80		82			
240-96479-3	18:36	88		90		83		86			
240-96479-3	18:42	88		90		82		85			
240-96479-4	18:49	79		85		77		79			
240-96479-4	18:55	84		87		78		79			
240-96479-5	19:02	84		89		81		81			
CCV 240-331151/46	19:08	99		91		89		89			
CCB 240-331151/47	19:14	107		94		92		92			
CCVL 240-331151/48	19:21	104		94		93		93			
CCV 240-331151/59	20:32	89		84		80		81			
CCB 240-331151/60	20:38	94		85		82		84			
240-96479-5	20:44	78		83		77		79			
CCV 240-331151/71	21:48	97		80		81		81			
CCB 240-331151/72	21:55	102		80		83		83			
CCVL 240-331151/85	23:18	104		72		80		80			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/11/2018 End Date: 06/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-331151/2 IC	14:26	102									
STD3 240-331151/3 IC	14:33	100									
STD4 240-331151/4 IC	14:39	101									
ICV 240-331151/5	14:45	102									
ICB 240-331151/6	14:52	99									
ICVL 240-331151/7	14:58	103									
ICSA 240-331151/8	15:05	98									
ICSAB 240-331151/9	15:11	99									
CCV 240-331151/22	16:34	95									
CCB 240-331151/23	16:41	94									
MB 240-329861/1-A	17:06	94									
LCS 240-329861/2-A	17:13	93									
CCV 240-331151/34	17:51	92									
CCB 240-331151/35	17:58	93									
240-96479-2	18:23	117									
240-96479-2	18:30	117									
240-96479-3	18:36	96									
240-96479-3	18:42	95									
240-96479-4	18:49	95									
240-96479-4	18:55	92									
240-96479-5	19:02	91									
CCV 240-331151/46	19:08	92									
CCB 240-331151/47	19:14	93									
CCVL 240-331151/48	19:21	95									
CCV 240-331151/59	20:32	89									
CCB 240-331151/60	20:38	90									
240-96479-5	20:44	92									
CCV 240-331151/71	21:48	85									
CCB 240-331151/72	21:55	86									
CCVL 240-331151/85	23:18	80									

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/12/2018 End Date: 06/12/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-331451/2 IC	13:46	98		100		101		99			
STD3 240-331451/3 IC	13:53	97		98		100		96			
STD4 240-331451/4 IC	13:59	100		96		102		101			
ICV 240-331451/5	14:05	100		99		101		99			
ICB 240-331451/6	14:12	102		99		102		101			
ICVL 240-331451/7	14:18	102		100		102		101			
ICSA 240-331451/8	14:25	93		98		96		94			
ICSAB 240-331451/9	14:31	93		95		95		93			
CCV 240-331451/22	15:55	94		97		95		95			
CCB 240-331451/23	16:01	97		97		97		98			
MB 240-329861/1-A	16:07	93		102		92		95			
LCS 240-329861/2-A	16:14	90		101		91		90			
CCV 240-331451/34	17:12	97		96		96		94			
CCB 240-331451/35	17:18	98		96		97		97			
240-96479-2	17:24	89		100		89		88			
240-96479-2	17:31	89		100		88		86			
240-96479-3	17:37	95		100		92		93			
240-96479-3	17:44	94		99		89		92			
240-96479-4	17:50	83		92		86		86			
240-96479-4	17:57	87		94		87		86			
240-96479-5	18:03	89		97		89		88			
240-96479-5	18:09	101		97		102		100			
CCV 240-331451/46	18:29	95		92		94		92			
CCB 240-331451/47	18:35	98		92		95		95			
CCVL 240-331451/48	18:41	97		93		96		95			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 06/12/2018 End Date: 06/12/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-331451/2 IC	13:46	101									
STD3 240-331451/3 IC	13:53	98									
STD4 240-331451/4 IC	13:59	100									
ICV 240-331451/5	14:05	99									
ICB 240-331451/6	14:12	101									
ICVL 240-331451/7	14:18	101									
ICSA 240-331451/8	14:25	100									
ICSAB 240-331451/9	14:31	99									
CCV 240-331451/22	15:55	98									
CCB 240-331451/23	16:01	100									
MB 240-329861/1-A	16:07	103									
LCS 240-329861/2-A	16:14	102									
CCV 240-331451/34	17:12	97									
CCB 240-331451/35	17:18	97									
240-96479-2	17:24	124									
240-96479-2	17:31	120									
240-96479-3	17:37	100									
240-96479-3	17:44	98									
240-96479-4	17:50	99									
240-96479-4	17:57	98									
240-96479-5	18:03	96									
240-96479-5	18:09	97									
CCV 240-331451/46	18:29	95									
CCB 240-331451/47	18:35	95									
CCVL 240-331451/48	18:41	95									

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329861 Batch Start Date: 06/04/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/04/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00203
MB 240-329861/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-329861/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96479-G-2	DMW-7I-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-H-2	DMW-7I-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-F-3	DMW-7D-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-G-3	DMW-7D-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-J-4	DMW-7S-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-K-4	DMW-7S-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-J-5	MSA-MW-5-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-K-5	MSA-MW-5-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329861/1		3005A, 6020A		1 mL					
LCS 240-329861/2		3005A, 6020A		1 mL					
240-96479-G-2	DMW-7I-053118	3005A, 6020A	R	1 mL					
240-96479-H-2	DMW-7I-053118	3005A, 6020A	D	1 mL					
240-96479-F-3	DMW-7D-053118	3005A, 6020A	R	1 mL					
240-96479-G-3	DMW-7D-053118	3005A, 6020A	D	1 mL					
240-96479-J-4	DMW-7S-053118	3005A, 6020A	R	1 mL					
240-96479-K-4	DMW-7S-053118	3005A, 6020A	D	1 mL					
240-96479-J-5	MSA-MW-5-053118	3005A, 6020A	R	1 mL					
240-96479-K-5	MSA-MW-5-053118	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329861 Batch Start Date: 06/04/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/04/18 22:00

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb4
Pipette/Syringe/Dispenser ID	mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329865 Batch Start Date: 06/04/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/04/18 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01840	MTKMN04W 00161
MB 240-329865/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-329865/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-96479-G-2	DMW-7I-053118	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-H-2	DMW-7I-053118	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-F-3	DMW-7D-053118	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-G-3	DMW-7D-053118	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-J-4	DMW-7S-053118	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-K-4	DMW-7S-053118	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-J-5	MSA-MW-5-053118	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-96479-K-5	MSA-MW-5-053118	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329865/1		7470A, 7470A		1.25 mL					
LCS 240-329865/2		7470A, 7470A		1.25 mL					
240-96479-G-2	DMW-7I-053118	7470A, 7470A	T	1.25 mL					
240-96479-H-2	DMW-7I-053118	7470A, 7470A	D	1.25 mL					
240-96479-F-3	DMW-7D-053118	7470A, 7470A	T	1.25 mL					
240-96479-G-3	DMW-7D-053118	7470A, 7470A	D	1.25 mL					
240-96479-J-4	DMW-7S-053118	7470A, 7470A	T	1.25 mL					
240-96479-K-4	DMW-7S-053118	7470A, 7470A	D	1.25 mL					
240-96479-J-5	MSA-MW-5-053118	7470A, 7470A	T	1.25 mL					
240-96479-K-5	MSA-MW-5-053118	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329865 Batch Start Date: 06/04/18 12:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/04/18 14:00

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	b1, c1, c2
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329940 Batch Start Date: 06/04/18 09:15 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 06/04/18 11:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00084	MTH2S04 00057	MTHGCALW 01840	MTHgICV_00001 00347
ICV 240-329940/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-329940/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-329940/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-329940/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-329940/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00161	MTTMHNO3 00155				
ICV 240-329940/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-329940/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-329940/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-329940/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-329940/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	takeout temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	A8, MP1, MP2
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00211

Analyte	ICV 240-331151/5 06/11/2018 14:45				CCV 240-331151/22 06/11/2018 16:34				CCV 240-331151/34 06/11/2018 17:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	39.9		40.0	100	49.6		50.0	99	50.4		50.0	101
Arsenic	40.5		40.0	101	50.4		50.0	101	49.8		50.0	100
Barium	39.9		40.0	100	49.7		50.0	99	49.8		50.0	100
Beryllium	40.2		40.0	101	55.1		50.0	110	55.2		50.0	110
Cadmium	40.3		40.0	101	49.9		50.0	100	50.3		50.0	101
Cobalt	40.5		40.0	101	50.2		50.0	100	50.7		50.0	101
Copper	41.5		40.0	104	50.3		50.0	101	51.6		50.0	103
Dissolved Iron	9950		10000	100	12200		12500	97	12200		12500	97
Dissolved Lead	40.7		40.0	102	50.2		50.0	100	51.3		50.0	103
Dissolved Manganese	199		200	100	253		250	101	253		250	101
Dissolved Molybdenum	39.1		40.0	98	50.8		50.0	102	51.2		50.0	102
Dissolved Nickel	39.5		40.0	99	50.5		50.0	101	51.3		50.0	103
Dissolved Selenium	40.2		40.0	101	50.2		50.0	100	49.6		50.0	99
Dissolved Silver	39.9		40.0	100	50.3		50.0	101	51.0		50.0	102
Dissolved Thallium	39.8		40.0	100	49.7		50.0	99	51.1		50.0	102
Dissolved Vanadium	39.8		40.0	100	49.6		50.0	99	50.4		50.0	101
Zinc	39.4		40.0	98	49.4		50.0	99	50.5		50.0	101
Chromium	39.6		40.0	99	49.7		50.0	99	50.6		50.0	101

ICV %R: 9950/10000 x 100 = 99.5%

CCV %R: 12200/12500 x 100 = 97.6%

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

ICV-3553775 6/11/2018 2:45:49 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		105.434%	100.520%	101.482%
%RSD		4.886	0.691	1.144
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		99.441%	99.179%	99.684%
%RSD		0.938	0.809	3.425
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		0.000	T 98.704%	93.036%
%RSD		0.000	T 0.338	1.289
Run	**Time**	**45Sc**	**45Sc CCT**	**47Ti**
		ppb	ppb	ppb
x		T 102.712%	99.789%	100.623%
%RSD		T 1.324	0.222	2.652
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
x		99.547%	99.092%	2.493
%RSD		0.780	0.937	11.720
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 99.709%	T 99.544%	101.322%
%RSD		T 0.944	T 0.338	0.574
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		98.763%	103.799%	98.400%
%RSD		1.478	0.585	1.127
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		98.607%	101.278%	-0.187
%RSD		0.394	1.276	36.450
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		100.509%	99.104%	97.790%
%RSD		3.334	0.944	0.897
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	99.839%	33.180
%RSD		0.000	0.162	51.870
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		100.662%	98.281%	99.682%
%RSD		1.068	0.569	1.105
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		99.840%	99.698%	0.000
%RSD		1.046	1.176	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		102.156%	99.487%	99.491%
%RSD		0.802	0.896	0.808
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		101.659%	0.000	
%RSD		0.967	0.000	

CCV-3625383 6/11/2018 4:34:47 PM QC Status: FAIL (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		108.430%	110.224%	112.873%
%RSD		3.351	1.001	1.668
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		101.247%	100.535%	104.757%
%RSD		0.815	2.078	4.379
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		0.000	T 98.339%	94.707%
%RSD		0.000	T 0.318	1.019
Run	**Time**	**45Sc**	**45Sc CCT**	**47Ti**
		ppb	ppb	ppb
x		T 94.429%	93.187%	100.064%
%RSD		T 0.542	0.887	4.564
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
x		99.123%	99.362%	4.379
%RSD		1.507	0.359	17.910
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		T 101.037%	T 97.280%	100.466%
%RSD		T 0.384	T 0.587	1.313
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		101.037%	100.510%	98.733%
%RSD		0.891	1.029	1.297
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		91.507%	100.883%	-0.153
%RSD		0.347	0.260	56.090
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		100.295%	100.115%	101.508%
%RSD		1.167	0.278	0.310
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	100.616%	9.206
%RSD		0.000	0.989	331.200
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		99.695%	90.905%	98.965%
%RSD		0.724	0.544	0.175
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		99.199%	99.316%	0.000
%RSD		0.601	0.952	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		94.990%	99.609%	99.484%
%RSD		1.099	0.594	1.362
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		100.329%	0.000	
%RSD		1.377	0.000	

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-7I-053118 Lab Sample ID: 240-96479-2

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG ID.:

Matrix: Water Date Sampled: 05/31/2018 08:35

Reporting Basis: WET Date Received: 06/02/2018 09:35

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	9.7	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	6.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	48	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	24	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	54	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	5.0	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	8.5	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	11	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

Sample Calc

30070 x 50 /50 x 1 = 30070 ug/L

240-96479-g-2-a 6/11/2018 6:23:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		83.101%	3.251	M 794.700
%RSD		2.858	1.102	M 0.271
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		35450.000	M 59860.000	M 4489.000
%RSD		0.827	M 0.354	M 1.943
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 17160.000	TM 132500.000
%RSD		T 0.000	T 0.710	TM 0.475
Run	**Time**	**45Sc**	**45Sc CCT**	**47Ti**
		ppb	ppb	ppb
x		T 88.393%	80.511%	0.286
%RSD		T 0.488	0.201	47.080
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
x		10.860	4.399	2.259
%RSD		2.475	2.660	14.540
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		TM 2193.000	TM 30070.000	48.260
%RSD		TM 0.557	TM 0.490	0.774
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		54.280	24.180	M 241.300
%RSD		2.337	2.174	M 0.407
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		80.383%	3.341	0.446
%RSD		0.554	2.604	26.940
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		8.530	M 484.600	0.007
%RSD		1.777	M 0.063	213.700
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	-0.006	-19.560
%RSD		0.000	18.840	24.860
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		6.564	81.578%	-0.067
%RSD		2.267	0.582	38.430
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.131	9.663	0.000
%RSD		11.860	1.573	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		116.969%	0.014	0.081
%RSD		0.105	33.820	11.000
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		5.036	0.000	
%RSD		0.896	0.000	

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-96479-1

SDG No.:

Batch Number: 329861 Batch Start Date: 06/04/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/04/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00203
MB 240-329861/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-329861/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-96479-G-2	DMW-7I-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-H-2	DMW-7I-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-F-3	DMW-7D-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-G-3	DMW-7D-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-J-4	DMW-7S-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-K-4	DMW-7S-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-96479-J-5	MSA-MW-5-053118	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-96479-K-5	MSA-MW-5-053118	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00155					
MB 240-329861/1		3005A, 6020A		1 mL					
LCS 240-329861/2		3005A, 6020A		1 mL					
240-96479-G-2	DMW-7I-053118	3005A, 6020A	R	1 mL					
240-96479-H-2	DMW-7I-053118	3005A, 6020A	D	1 mL					
240-96479-F-3	DMW-7D-053118	3005A, 6020A	R	1 mL					
240-96479-G-3	DMW-7D-053118	3005A, 6020A	D	1 mL					
240-96479-J-4	DMW-7S-053118	3005A, 6020A	R	1 mL					
240-96479-K-4	DMW-7S-053118	3005A, 6020A	D	1 mL					
240-96479-J-5	MSA-MW-5-053118	3005A, 6020A	R	1 mL					
240-96479-K-5	MSA-MW-5-053118	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-329861/2-A

Lab Name: TestAmerica Canton Job No.: 240-96479-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.4		99	80	120		6020A
Dissolved Antimony	100	99.4		99	80	120		6020A
Arsenic	1000	978		98	80	120		6020A
Dissolved Arsenic	1000	978		98	80	120		6020A
Barium	1000	972		97	80	120		6020A
Dissolved Barium	1000	972		97	80	120		6020A
Beryllium	1000	1150		115	80	120		6020A
Dissolved Beryllium	1000	1150		115	80	120		6020A
Cadmium	1000	1020		102	80	120		6020A
Dissolved Cadmium	1000	1020		102	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Copper	1000	1040		104	80	120		6020A
Dissolved Copper	1000	1040		104	80	120		6020A
Dissolved Iron	10000	9720		97	80	120		6020A
Iron	10000	9720		97	80	120		6020A
Dissolved Manganese	1000	1000		100	80	120		6020A
Manganese	1000	1000		100	80	120		6020A
Dissolved Molybdenum	100	97.9		98	80	120		6020A
Molybdenum	100	97.9		98	80	120		6020A
Dissolved Nickel	1000	1020		102	80	120		6020A
Nickel	1000	1020		102	80	120		6020A
Dissolved Lead	1000	1030		103	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Dissolved Selenium	1000	968		97	80	120		6020A
Selenium	1000	968		97	80	120		6020A
Dissolved Thallium	250	251		101	80	120		6020A
Thallium	250	251		101	80	120		6020A
Dissolved Vanadium	1000	965		97	80	120		6020A
Dissolved Zinc	1000	1030		103	80	120		6020A
Vanadium	1000	965		97	80	120		6020A
Zinc	1000	1030		103	80	120		6020A
Dissolved Silver	100	105		105	80	120		6020A
Silver	100	105		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

LCS %R

9720 / 10000 x 100 = 97.2%

Method 6850

Perchlorate by LC/MS or LC/MS/MS by Method 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab File ID: Perc_06142018A_008.d Lab Sample ID: MB 320-228684/1-A

Matrix: Water Date Extracted: 06/12/2018 14:07

Instrument ID: A5 Date Analyzed: 06/14/2018 13:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-228684/2-A	Perc_06142018A_009.d	06/14/2018 13:32
DMW-7I-053118	240-96479-2	Perc_06142018A_013.d	06/14/2018 14:26
DMW-7I-053118 MS	240-96479-2 MS	Perc_06142018A_014.d	06/14/2018 14:39
DMW-7I-053118 MSD	240-96479-2 MSD	Perc_06142018A_015.d	06/14/2018 14:52

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-228684/1-A

Matrix: Water Lab File ID: Perc_06142018A_008.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) Date Analyzed: 06/14/2018 13:19

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_009.d

Lab ID: LCS 320-228684/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.25	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_014.d

Lab ID: 240-96479-2 MS Client ID: DMW-7I-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	5.32	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_015.d

Lab ID: 240-96479-2 MSD Client ID: DMW-7I-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.26	105	1	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_010.d

Lab ID: INF 320-228684/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.35	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1 Analy Batch No.: 229060

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/13/2018 17:57 Calibration End Date: 06/13/2018 19:30 Calibration ID: 39710

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-229060/5	Perc_06132018A_007.d
Level 2	STD02 320-229060/6	Perc_06132018A_008.d
Level 3	STD03 320-229060/7	Perc_06132018A_009.d
Level 4	STD04 320-229060/8	Perc_06132018A_010.d
Level 5	STD05 320-229060/9	Perc_06132018A_011.d
Level 6	STD06 320-229060/10	Perc_06132018A_012.d
Level 7	STD07 320-229060/11	Perc_06132018A_013.d
Level 8	STD08 320-229060/12	Perc_06132018A_014.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.7299 0.9313	0.8629 0.9610	0.8284 0.9609	0.9100	0.9339	Ave		0.8898				8.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1 Analy Batch No.: 229060

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/13/2018 17:57 Calibration End Date: 06/13/2018 19:30 Calibration ID: 39710

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-229060/5	Perc_06132018A_007.d
Level 2	STD02 320-229060/6	Perc_06132018A_008.d
Level 3	STD03 320-229060/7	Perc_06132018A_009.d
Level 4	STD04 320-229060/8	Perc_06132018A_010.d
Level 5	STD05 320-229060/9	Perc_06132018A_011.d
Level 6	STD06 320-229060/10	Perc_06132018A_012.d
Level 7	STD07 320-229060/11	Perc_06132018A_013.d
Level 8	STD08 320-229060/12	Perc_06132018A_014.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	254906 10894356	495583 21247575	946498 40927275	2074658	4360942	0.150 5.00	0.250 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: ICV 320-229060/14 Calibration Date: 06/13/2018 19:57

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06132018A_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9670		5.43	5.00	8.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 320-229245/1 Calibration Date: 06/14/2018 12:39

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9074		2.04	2.00	2.0	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVL 320-229245/2 Calibration Date: 06/14/2018 12:52

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.8876		0.499	0.500	-0.3	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 320-229245/14 Calibration Date: 06/14/2018 15:32

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9286		1.04	1.00	4.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCVL 320-229245/24 Calibration Date: 06/14/2018 17:45

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_028.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9125		0.513	0.500	2.5	50.0

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/13/2018 19:30

Calibration ID: 39710

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		22777583	8.87				
UPPER LIMIT		34166375	9.87				
LOWER LIMIT		11388792	7.87				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 320-229060/4		22028809	8.85				
CCB 320-229060/13		23587810	8.87				
ICV 320-229060/14		23676000	8.87				
CCV 320-229245/1 CCVIS		29290311	8.95				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Sample No.: CCV 320-229245/1 Date Analyzed: 06/14/2018 12:39

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06142018A_005. Heated Purge: (Y/N) N

Calibration ID: 39710

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		29290311	8.95				
UPPER LIMIT		43935467	9.95				
LOWER LIMIT		14645156	7.95				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-229245/2		29431042	8.95				
CCB 320-229245/3		29329641	8.97				
MB 320-228684/1-A		26221057	8.95				
LCS 320-228684/2-A		27299316	8.95				
INF 320-228684/3-A		25962464	8.90				
240-96479-2	DMW-7I-053118	26540627	8.85				
240-96479-2 MS	DMW-7I-053118 MS	27530084	8.81				
240-96479-2 MSD	DMW-7I-053118 MSD	27961322	8.82				
CCV 320-229245/14		28064712	8.98				
CCVL 320-229245/24		28913477	8.90				
CCB 320-229245/25		28258051	8.91				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-229060/13

Matrix: Water Lab File ID: Perc_06132018A_015.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/13/2018 19:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229060 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-229245/3

Matrix: Water Lab File ID: Perc_06142018A_007.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/14/2018 13:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-229245/25

Matrix: Water Lab File ID: Perc_06142018A_029.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/14/2018 17:59

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-229060/4

Matrix: Water Lab File ID: Perc_06132018A_006.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/13/2018 17:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229060 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

Initial Calibration: 6/13/2018

IS AREA	COMPOUND OF INTEREST AREA	IS AMOUNT PPB	COMPOUND AMOUNT PPB	RRF
23302057	254906	10	0.15	0.7293
22994509	495583	10	0.25	0.8621
22873107	946498	10	0.5	0.8276
22817979	2074658	10	1	0.9092
23370251	4360942	10	2	0.9330
23418032	10894356	10	5	0.9304
22129406	21247575	10	10	0.9602
21315319	40927275	10	20	0.9600

AVERAGE RRF 0.9118

%RSD 8.7125

SAMPLE CALC **SAMPLE ID** **LCS 320-228684/2-A**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION	
27299316	1	12753787	10	4	0.9118	5.12	ng/uL
		Amt Injected (uL)		**VOLUME OF SAMPLE (mL)**		5.123789823	ug/L
		80		4			

LCS %R	SPIKE AMOUNT (PPB)	LCS CONCENTRATION
105.00	5	5.25

CCV RRF 6/14/18 @ 12:39

IS AREA	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	COMPOUND AMOUNT PPB	RRF
29290311	5310852	10	2.04	0.8888

% DIFFERENCE CCV
2.52034997

SAMPLE CALC **SAMPLE ID** **MS**

IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB
27530084	1	13042690	10	4	0.9118	5.20
		Amt Injected (ul)		**VOLUME OF SAMPLE**		
		80		4		

MS %R	SPIKE AMOUNT (PPB)	Sample Conc.	MS CONCENTRATION
106.40	5	0.00	5.32

MSD %R	SPIKE AMOUNT (PPB)	Sample Conc.	MSD CONCENTRATION
105.20	5	0.00	5.26

MS/MSD RPD
1.13

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1 Analy Batch No.: 229060

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/13/2018 17:57 Calibration End Date: 06/13/2018 19:30 Calibration ID: 39710

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-229060/5	Perc_06132018A_007.d
Level 2	STD02 320-229060/6	Perc_06132018A_008.d
Level 3	STD03 320-229060/7	Perc_06132018A_009.d
Level 4	STD04 320-229060/8	Perc_06132018A_010.d
Level 5	STD05 320-229060/9	Perc_06132018A_011.d
Level 6	STD06 320-229060/10	Perc_06132018A_012.d
Level 7	STD07 320-229060/11	Perc_06132018A_013.d
Level 8	STD08 320-229060/12	Perc_06132018A_014.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.7299 0.9313	0.8629 0.9610	0.8284 0.9609	0.9100	0.9339	Ave		0.8898				8.9	✓	15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1 Analy Batch No.: 229060

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/13/2018 17:57 Calibration End Date: 06/13/2018 19:30 Calibration ID: 39710

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-229060/5	Perc_06132018A_007.d
Level 2	STD02 320-229060/6	Perc_06132018A_008.d
Level 3	STD03 320-229060/7	Perc_06132018A_009.d
Level 4	STD04 320-229060/8	Perc_06132018A_010.d
Level 5	STD05 320-229060/9	Perc_06132018A_011.d
Level 6	STD06 320-229060/10	Perc_06132018A_012.d
Level 7	STD07 320-229060/11	Perc_06132018A_013.d
Level 8	STD08 320-229060/12	Perc_06132018A_014.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	254906 10894356	495583 21247575	946498 40927275	2074658	4360942	0.150 5.00	0.250 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_007.d
Lims ID: STD01
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Jun-2018 17:57:31 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L1, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:49:53 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

First Level Reviewer: westendorfc Date: 14-Jun-2018 10:41:55

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									M
99.0 > 83.0	8.839	8.859	-0.020	0.996	254906	0.1231		2742	
101.0 > 85.0	8.876	8.859	0.017	1.000	68410		3.73(2.30-3.80)	1203	M
* 1 18-O Perchlorate									
107.0 > 89.0	8.873	8.869	0.004		23302057	10.0		1729	
109.0 > 91.0	8.869	8.869	0.0		7652474		3.05(2.30-3.80)	604	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

LC6850L1_00021 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_008.d
Lims ID: STD02
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Jun-2018 18:10:49 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L2, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:49:54 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

First Level Reviewer: westendorfc Date: 14-Jun-2018 10:44:34

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									M
99.0 > 83.0	8.880	8.859	0.021	1.002	495583	0.2424		30.2	M
101.0 > 85.0	8.903	8.859	0.044	1.005	198821		2.49(2.30-3.80)	12.5	
* 1 18-O Perchlorate									
107.0 > 89.0	8.859	8.869	-0.010		22994509	10.0		1074	
109.0 > 91.0	8.869	8.869	0.0		7575656		3.04(2.30-3.80)	366	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

LC6850L2_00017 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_009.d
Lims ID: STD03
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Jun-2018 18:24:09 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L3, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:49:56 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									
99.0 > 83.0	8.920	8.859	0.061	1.005	946498	0.4655		1957	
101.0 > 85.0	8.917	8.859	0.058	1.005	314529		3.01(2.30-3.80)	3889	
* 1 18-O Perchlorate									
107.0 > 89.0	8.873	8.869	0.004		22873107	10.0		3710	
109.0 > 91.0	8.869	8.869	0.0		7531042		3.04(2.30-3.80)	302	

Reagents:

LC6850L3_00020 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_010.d
Lims ID: STD04
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Jun-2018 18:37:27 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L4, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:49:57 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

First Level Reviewer: westendorfc Date: 14-Jun-2018 10:43:59

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									M
99.0 > 83.0	8.866	8.880	-0.014	0.999	2074658	1.02		18522	
101.0 > 85.0	8.903	8.880	0.023	1.003	640793		3.24(2.30-3.80)	35.2	M
* 1 18-O Perchlorate									
107.0 > 89.0	8.873	8.869	0.004		22817979	10.0		2818	
109.0 > 91.0	8.869	8.869	0.0		7421288		3.07(2.30-3.80)	614	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

LC6850L4_00020 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_011.d
Lims ID: STD05
Client ID:
Sample Type: ICISAV Calib Level: 5
Inject. Date: 13-Jun-2018 18:50:51 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L5, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:49:58 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.886	8.869	0.017		23370251	10.0		1464	
109.0 > 91.0	8.897	8.869	0.028		7651680		3.05(2.30-3.80)	631	
2 Perchlorate									
99.0 > 83.0	8.893	8.876	0.017	1.001	4360942	2.10		14646	
101.0 > 85.0	8.863	8.876	-0.013	0.997	1523194		2.86(2.30-3.80)	17926	

Reagents:

LC6850L5_00019 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_012.d
Lims ID: STD06
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Jun-2018 19:04:09 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L6, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:50:00 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.873	8.869	0.004		23418032	10.0		1969	
109.0 > 91.0	8.869	8.869	0.0		7595331		3.08(2.30-3.80)	371	
2 Perchlorate									
99.0 > 83.0	8.893	8.880	0.013	1.002	10894356	5.23		27468	
101.0 > 85.0	8.890	8.880	0.010	1.002	3756698		2.90(2.30-3.80)	42671	

Reagents:

LC6850L6_00020 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_013.d
Lims ID: STD07
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 13-Jun-2018 19:17:27 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L7, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:50:01 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.859	8.869	-0.010		22129406	10.0		3137	
109.0 > 91.0	8.856	8.869	-0.013		7343445		3.01(2.30-3.80)	525	
2 Perchlorate									
99.0 > 83.0	8.880	8.882	-0.002	1.002	21247575	10.8		3545	
101.0 > 85.0	8.876	8.882	-0.006	1.002	7454751		2.85(2.30-3.80)	80328	

Reagents:

LC6850L7_00016 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d
Lims ID: STD08
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 13-Jun-2018 19:30:49 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: L8, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 14-Jun-2018 10:50:02 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.859	8.869	-0.010		21315319	10.0		4526	
109.0 > 91.0	8.869	8.869	0.0		6921709		3.08(2.30-3.80)	294	
2 Perchlorate									
99.0 > 83.0	8.866	8.882	-0.016	1.001	40927275	21.6		2623	
101.0 > 85.0	8.863	8.882	-0.019	1.000	14345899		2.85(2.30-3.80)	15278	

Reagents:

LC6850L8_00016 Amount Added: 1.00 Units: mL

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 320-228684/2-A

Matrix: Water Lab File ID: Perc_06142018A_009.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) Date Analyzed: 06/14/2018 13:32

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.25		0.50	0.082

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\Perc_06142018A_009.d
Lims ID: LCS 320-228684/2-A
Client ID:
Sample Type: LCS
Inject. Date: 14-Jun-2018 13:32:52 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-228684/2-A, Sample
Operator ID: Instrument ID: A5

Method: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 15-Jun-2018 09:59:26 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK006

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.954	8.954	0.0		27299316	10.0		4665	
109.0 > 91.0	8.965	8.954	0.011		8863725		3.08(2.30-3.80)	718	
2 Perchlorate									
99.0 > 83.0	8.961	8.961	0.0	1.001	12753787	5.25		2458	
101.0 > 85.0	8.971	8.961	0.010	1.002	4431545		2.88(2.30-3.80)	29488	

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_009.d

Lab ID: LCS 320-228684/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.25	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Lab Sample ID: CCV 320-229245/1 Calibration Date: 06/14/2018 12:39

Instrument ID: A5 Calib Start Date: 06/13/2018 17:57

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/13/2018 19:30

Lab File ID: Perc_06142018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.8898	0.9074		2.04	2.00	2.0	15.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\Perc_06142018A_005.d
Lims ID: CCV L5
Client ID:
Sample Type: CCVIS
Inject. Date: 14-Jun-2018 12:39:39 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5, Sample
Operator ID: Instrument ID: A5
Sublist: chrom-6850_A5*sub4

Method: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 15-Jun-2018 09:59:25 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK006

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.954	8.954	0.0		29290311	10.0		3968	
109.0 > 91.0	8.937	8.954	-0.017		9480602		3.09(2.30-3.80)	835	
2 Perchlorate									
99.0 > 83.0	8.961	8.961	0.0	1.001	5310852	2.04		5115	
101.0 > 85.0	8.958	8.961	-0.003	1.000	1857163		2.86(2.30-3.80)	21994	

Reagents:

LC6850L5_00019 Amount Added: 1.00 Units: mL

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_014.d

Lab ID: 240-96479-2 MS Client ID: DMW-7I-053118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	5.32	106	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 MS Lab Sample ID: 240-96479-2 MS

Matrix: Water Lab File ID: Perc_06142018A_014.d

Analysis Method: 6850 Date Collected: 05/31/2018 08:35

Extraction Method: Filtration Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) Date Analyzed: 06/14/2018 14:39

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.32		0.50	0.082

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\Perc_06142018A_014.d
Lims ID: 240-96479-D-2-B MS
Client ID:
Sample Type: MS
Inject. Date: 14-Jun-2018 14:39:23 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: 240-96479-D-2-B MS, Sample
Operator ID: Instrument ID: A5

Method: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 15-Jun-2018 09:59:26 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK006

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.805	8.954	-0.149		27530084	10.0		1600	
109.0 > 91.0	8.815	8.954	-0.139		9043559		3.04(2.30-3.80)	419	
2 Perchlorate									
99.0 > 83.0	8.812	8.961	-0.149	1.001	13042690	5.32		6437	
101.0 > 85.0	8.822	8.961	-0.139	1.002	4554142		2.86(2.30-3.80)	54929	

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06142018A_015.d

Lab ID: 240-96479-2 MSD Client ID: DMW-7I-053118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.26	105	1	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-96479-1

SDG No.:

Client Sample ID: DMW-7I-053118 MSD Lab Sample ID: 240-96479-2 MSD

Matrix: Water Lab File ID: Perc_06142018A_015.d

Analysis Method: 6850 Date Collected: 05/31/2018 08:35

Extraction Method: Filtration Date Extracted: 06/12/2018 14:07

Sample wt/vol: 4.00(mL) Date Analyzed: 06/14/2018 14:52

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 229245 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.26		0.50	0.082

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\Perc_06142018A_015.d
Lims ID: 240-96479-D-2-C MSD
Client ID:
Sample Type: MSD
Inject. Date: 14-Jun-2018 14:52:40 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: 240-96479-D-2-C MSD, Sample
Operator ID: Instrument ID: A5

Method: \\ChromNA\Sacramento\ChromData\A5\20180615-59755.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 15-Jun-2018 09:59:26 Calib Date: 13-Jun-2018 19:30:49
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180614-59707.b\Perc_06132018A_014.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK006

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
* 1 18-O Perchlorate									
107.0 > 89.0	8.819	8.954	-0.135		27961322	10.0		2899	
109.0 > 91.0	8.815	8.954	-0.139		9156014		3.05(2.30-3.80)	898	
2 Perchlorate									
99.0 > 83.0	8.825	8.961	-0.136	1.001	13095288	5.26		4381	
101.0 > 85.0	8.836	8.961	-0.125	1.002	4438264		2.95(2.30-3.80)	16523	

TETRA TECH **INTERNAL CORRESPONDENCE**

TO: **M. MARTIN** **DATE:** **AUGUST 20, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **RADIOLOGICAL DATA VALIDATION – RADIOLOGICAL PARAMETERS**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
DUMP ROAD
SAMPLE DELIVERY GROUP (SDG) 240-97329-2

SAMPLES: 1/Aqueous/Radiological Parameters

MSA-MW-27D-061918

Overview

The sample set for LMC-MSA Dump Road, SDG 240-97329-2 consisted of one (1) aqueous environmental sample. The one (1) sample was analyzed for radiological parameters (total alpha radium and radium-228). No field duplicate sample pair was included in this SDG.

The sample was collected by Tetra Tech, Inc. on June 19, 2018 and analyzed by TestAmerica, Inc. All analyses were conducted in accordance with EPA Methods 903.0 and 904.0 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times and sample preservation, initial/continuing calibrations, laboratory method blank results, laboratory control sample/laboratory control sample duplicate results, isotope tracer recoveries, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The following radiological parameter was detected in the laboratory method blank:

Isotope	Concentration
Total Alpha Radium (1)	6.864E-01 ± 4.42E-01 pCi/L

(1) - Activity detected in the laboratory method blank, MB 160-374770/6-A, affecting the sample.

The mean difference of the blank activity and detected sample activity was calculated and used for the evaluation of blank contamination. The mean difference was < 2 (1.679) indicating the sample result was not statically distinguishable from the laboratory method blank. The sample result was qualified as non-detected and estimated, (UJ).

Notes

Results with detected activities less than the associated uncertainties were qualified by the laboratory as statistically non-detected, (U), at the 95% confidence limit.

The uncertainty for the radiological parameters are reported at 2–sigma (95% confidence). The EDD does not contain the uncertainty result.

Executive Summary

Laboratory Performance: Laboratory blank contamination was noted for total alpha radium.

Other Factors Affecting Data Quality: None.

The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-27D-061918		
SDG: 240-97329-2	LAB_ID	240-97329-4		
FRACTION: RAD	SAMP_DATE	6/19/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	PCI/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
RADIUM-228		0.0928	U	
TOTAL ALPHA RADIUM		0.278	UJ	A

Appendix B

Results as Reported by the Laboratory

Client Sample ID: MSA-MW-27D-061918

Lab Sample ID: 240-97329-4

Date Collected: 06/19/18 12:05

Matrix: Water

Date Received: 06/20/18 09:20

Method: 903.0 - Total Alpha Radium (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Alpha Radium	**0.278**		0.201	0.203	1.00	0.273	pCi/L	07/10/18 12:55	07/12/18 19:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*40 - 110*	*07/10/18 12:55*	*07/12/18 19:16*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0928	U	0.215	0.215	1.00	0.369	pCi/L	07/05/18 09:02	07/10/18 14:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*07/05/18 09:02*	*07/10/18 14:35*	*1*
Y Carrier	*88.6*		*40 - 110*	*07/05/18 09:02*	*07/10/18 14:35*	*1*

Appendix C

Support Documentation

LMC - MSA
SDG 240-97329-2

BLANK CONTAMINATION EVALUATION

SAMPLE ID	PARAMETER	RESULT		UNCERTAINTY (2σ)	UNITS	MEAN DIFFERENCE
MB 160-374770/6-A	TOTAL ALPHA RADIUM	6.86E-01	±	4.42E-01	pCi/L	NA
MSA-MW-27D-061918	TOTAL ALPHA RADIUM	2.78E-01	±	2.03E-01	pCi/L	1.679

MEAN DIFFERENCE (MD):

$$\frac{|\text{SAMPLE ACTIVITY - BLANK ACTIVITY}|}{\sqrt{((\text{SAMPLE UNCERTAINTY}/2)^2 + (\text{BLANK UNCERTAINTY}/2)^2)}}$$

Alpha/Beta Count Results

Sample Activity Report

Purple 16-19 - A

Addr: 16

Sample ID 240-97329-J-4-A
MSA-MW-27D-061918

Repeat 1
Carrier No. 0

Batch ID 374770

Count Method Gross Alpha Beta

Detector Volts 1515

Sample Qty	0 ***Sample***	**sd**	0 ***Sample***
Residual Wt	0 ***mg***	**sd**	0 ***mg***

Count Began 7/12/2018 7:16:18 PM
Count Ended 7/12/2018 8:56:25 PM

Collection Date 1 1/1/1900
Collection Date 2 1/1/1900

Half Life 0.00 ***days***
Decay Factor 1.000

Sample Count Time 100.00 ***mins***
Background Count Time 1,000.00 ***mins***

	Efficiency %	Attenuation Factor	Activity Divisor	Background cpm	Gross counts	Gross cpm	Net cpm
Alpha	0.000	1.000	1.000	0.074	20	0.200	0.126
sd	0.000			0.009	4.472	0.045	0.046
A to B	0.000	1.000				0.000	
sd	0.000					0.000	
Beta	0.000	1.000	1.000	0.350	42	0.420	0.070
sd	0.000			0.019	6.481	0.065	0.067

	Net Activity dpm	LLD dpm	MDC DPM	MPC DPM	Net Concentration * DPM	Conc / MPC Ratio
Alpha	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000
sd	0.000				0.000	
Beta	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000
sd	0.000				0.000	

*** Note: Decay Corrected**

MDC Method Currie

Error = .00 **x sd**

Alpha/Beta Count Results

Sample Activity Report

Purple 0-3 - A

Addr: 0

Sample ID 240-97329-K-4-A

Repeat 1

Carrier No. 0

Batch ID 374037

Count Method Gross Alpha Beta

Detector Volts 1515

Sample Qty 0 ***Sample*** **sd** 0 ***Sample***

Residual Wt 0 ***mg*** **sd** 0 ***mg***

Count Began 7/10/2018 2:35:21 PM

Count Ended 7/10/2018 5:55:33 PM

Collection Date 1 1/1/1900

Collection Date 2 1/1/1900

Half Life 0.00 ***days***

Decay Factor 1.000

Sample Count Time 200.00 ***mins***

Background Count Time 1,000.00 ***mins***

	Efficiency %	Attenuation Factor	Activity Divisor	Background cpm	Gross counts	Gross cpm	Net cpm
Alpha	0.000	1.000	1.000	0.120	44	0.220	0.100
sd	0.000			0.011	6.633	0.033	0.035
A to B	0.000	1.000				0.000	
sd	0.000					0.000	
Beta	0.000	1.000	1.000	0.415	92	0.460	0.045
sd	0.000			0.020	9.592	0.048	0.052

	Net Activity dpm	LLD dpm	MDC DPM	MPC DPM	Net Concentration * DPM	Conc / MPC Ratio
Alpha	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000
sd	0.000				0.000	
Beta	0.000	0.000	0.000	0.000	0.000 ± 0.000	0.000
sd	0.000				0.000	

*** Note: Decay Corrected**

MDC Method Currie

Error = .00 **x sd**

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

67 54 1.0/C1.0 2.0/C2.0

180323

Chain of Custody Record

TestAmerica

BALTIMORE

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW	Project #: ~~24015639~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Gro (8015C)	Dro (8015)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Radium 224, 226, 228 (9010)	Haloacetic Acids (552.2)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A										
TB-061918	6/19/18	—	G	Water			2	—	—	—	—	—	—	—	—		
DMW-2S-061918	↓	0855	↓	↓			3	2	2	2	1	1	1	—	2		
DMW-8I-061918	↓	1045	↓	↓			3	—	—	2	1	1	—	—	—		
MSA-MW-27D-061918	↓	1205	↓	↓			3	—	—	2	1	1	1	3	—		
DMW-2B-061918	↓	1435	↓	↓			9	—	—	6	3	3	—	—	—		*MS/MSD*

240-97329 Chain of Custody

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt P	6/19/18 / 1535	TT INC	[signature]	6/19/18 1535	TA
[signature]	6/19/18 1640	TA	POP	6-20-18 920	TAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 97329**
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 6-20-18 Opened on 6-20-18

Cooler unpacked by: BOP

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ~~(X)~~ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF -0.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	Yes	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: BOP

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 97329
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	1.0	1.0	ICE
		2.0	2.0	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
DMW-2S-061918	240-97329-J-2	Amber Glass 250mL - sodium thiosı			
DMW-2S-061918	240-97329-K-2	Amber Glass 250mL - sodium thiosı			
DMW-2S-061918	240-97329-M-2	Plastic 500ml - with Nitric Acid	<2		
DMW-2S-061918	240-97329-N-2	Plastic 500ml - w/ Nitric - Dis.	<2		
DMW-8I-061918	240-97329-F-3	Plastic 500ml - with Nitric Acid	<2		
DMW-8I-061918	240-97329-G-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-27D-061918	240-97329-G-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-27D-061918	240-97329-H-4	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-27D-061918	240-97329-I-4	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-061918	240-97329-J-4	Plastic 1 liter - Nitric Acid	<2		
MSA-MW-27D-061918	240-97329-K-4	Plastic 1 liter - Nitric Acid	<2		
DMB-2B-061918	240-97329-P-5	Plastic 500ml - with Nitric Acid	<2		
DMB-2B-061918	240-97329-Q-5	Plastic 500ml - with Nitric Acid	<2		
DMB-2B-061918	240-97329-R-5	Plastic 500ml - with Nitric Acid	<2		
DMB-2B-061918	240-97329-S-5	Plastic 500ml - w/ Nitric - Dis.	<2		
DMB-2B-061918	240-97329-T-5	Plastic 500ml - w/ Nitric - Dis.	<2		
DMB-2B-061918	240-97329-U-5	Plastic 500ml - w/ Nitric - Dis.	<2		

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-97329-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The 903.0 Total Alpha Radium and the 904.0 Radium 228 analyses were performed at the TestAmerica St. Louis laboratory.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 6/20/2018 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.0º C and 2.0º C.

RADIUM-228
Sample MSA-MW-27D-061918 (240-97329-4) was analyzed for Radium-228 in accordance with EPA Method 904.0. The sample was prepared on 07/05/2018 and analyzed on 07/10/2018.

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

TOTAL ALPHA RADIUM
Sample MSA-MW-27D-061918 (240-97329-4) was analyzed for Total Alpha Radium in accordance with EPA Method 903.0. The sample was prepared on 07/10/2018 and analyzed on 07/12/2018.

Total Alpha Radium Prep Batch 160-374770: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MSA-MW-27D-061918 (240-97329-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

Tracer/Carrier Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97329-2

Method: 903.0 - Total Alpha Radium (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)
240-97329-4	MSA-MW-27D-061918	88.2
LCS 160-374770/1-A	Lab Control Sample	87.3
LCSD 160-374770/2-A	Lab Control Sample Dup	82.6
MB 160-374770/6-A	Method Blank	87.9

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)
240-97329-4	MSA-MW-27D-061918	98.8	88.6
LCS 160-374037/1-A	Lab Control Sample	103	90.1
MB 160-374037/16-A	Method Blank	104	92.7

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97329-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-97329-4	MSA-MW-27D-061918	Water	06/19/18 12:05	06/20/18 09:20

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97329-2

Method	Method Description	Protocol	Laboratory
903.0	Total Alpha Radium (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374770

Lab ID: LCS 160-374770/1-A | Analyzed: 07/12/18 19:15 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple6 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	20.50	1.94	2.68		pCi/L	1.00	0.501	456	54	4.560	0.054	0.20078	375103

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02960				g		0.0339	87.3	40 - 110

Lab ID: LCSD 160-374770/2-A | Analyzed: 07/12/18 19:15 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple7 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	21.99	2.08	2.87		pCi/L	1.00	0.519	459	50	4.590	0.050	0.19938	375103

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02800				g		0.0339	82.6	40 - 110

Lab ID: 240-97329-4 | Analyzed: 07/12/18 19:16 | Decay Corrected: No | Ts: 100
Client ID: MSA-MW-27D-061918 | Detector: Purple16 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.278	0.201	0.203		pCi/L	1.00	0.273	20	74	0.200	0.074	0.20473	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0299				g		0.0339	88.2	40 - 110

Lab ID: MB 160-374770/6-A | Analyzed: 07/12/18 19:16 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple15 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.6864	0.437	0.442		pCi/L	1.00	0.564	23	77	0.230	0.077	0.20221	375103

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02980				g		0.0339	87.9	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374770

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-374770/6-A	Total Alpha Radium			0.6864		pCi/L							3.10734164

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-374770/1-A	Total Alpha Radium		22.7	20.50		pCi/L	90	67 - 133	7				-1.107184596

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-374770/2-A	Total Alpha Radium		22.7	21.99		pCi/L	97	67 - 133	7	0.27	0.76	1	-.3524814083

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97329-2

SDG No.:

Batch Number: 374770 Batch Start Date: 07/10/18 12:55 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/12/18 18:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	IngDecDate1	IngDecDate2
LCS 160-374770/1		PrecSep_0, 903.0		500 mL	8.7994 g	8.8290 g	0.0339 g	07/11/2018 12:53	07/12/2018 14:15
LCSD 160-374770/2		PrecSep_0, 903.0		500 mL	8.7648 g	8.7928 g	0.0339 g	07/11/2018 12:53	07/12/2018 14:15
240-97329-J-4	MSA-MW-27D-061918	PrecSep_0, 903.0	T	1000.05 mL	8.7968 g	8.8267 g	0.0339 g	07/11/2018 12:53	07/12/2018 14:15
MB 160-374770/6		PrecSep_0, 903.0		500 mL	8.7867 g	8.8165 g	0.0339 g	07/11/2018 12:53	07/12/2018 14:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	NativeMassBa	Ba Carrier 00038	Ra-226 00027			
LCS 160-374770/1		PrecSep_0, 903.0		0 g	1 mL	1 mL			
LCSD 160-374770/2		PrecSep_0, 903.0		0 g	1 mL	1 mL			
240-97329-J-4	MSA-MW-27D-061918	PrecSep_0, 903.0	T	0 g	1 mL				
MB 160-374770/6		PrecSep_0, 903.0		0 g	1 mL				

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-CPR/BME
Pipette ID	RAD112, SEP009
Analyst ID - Reagent Drop Witness	CLP per JLC
Analyst ID - Reagent Drop	JLC
SOP Number	ST-RC-0040, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374037

Lab ID: LCS 160-374037/1-A | Analyzed: 07/10/18 14:31 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Orange0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	7.671	0.582	0.915		pCi/L	1.00	0.366	887	467	4.435	0.467	0.44730	374562

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03500				g		0.0339	103	40 - 110
Y Carrier	0.02410				g		0.0268	90.1	40 - 110

Lab ID: 240-97329-4 | Analyzed: 07/10/18 14:35 | Decay Corrected: No | Ts: 200
Client ID: MSA-MW-27D-061918 | Detector: Purple0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.0928	0.215	0.215	U	pCi/L	1.00	0.369	92	415	0.460	0.415	0.44822	374666

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0335				g		0.0339	98.8	40 - 110
Y Carrier	0.0237				g		0.0268	88.6	40 - 110

Lab ID: MB 160-374037/16-A | Analyzed: 07/10/18 14:35 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Purple2 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	-0.1653	0.188	0.189	U	pCi/L	1.00	0.364	81	493	0.405	0.493	0.44941	374666

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03510				g		0.0339	104	40 - 110
Y Carrier	0.02480				g		0.0268	92.7	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-374037/16-A	Radium-228			-0.1653	U	pCi/L							-1.748019 47

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-374037/1-A	Radium-228		8.16	7.671		pCi/L	94	56 - 140					-.7283849 033

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374037

Glossary:

- Ts = Count Duration, Sample
- Tb = Count Duration, Background
- Cs = Total Counts, Sample
- Cb = Total Counts, Background
- CPMs = Counts Per Minute, Sample
- CPMb = Counts Per Minute, Background
- Eff = Efficiency

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97329-2

SDG No.:

Batch Number: 374037 Batch Start Date: 07/05/18 09:02 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/10/18 13:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	Y_TareWt	Y_GrossWt
LCS 160-374037/1		PrecSep_0, 904.0		1000 mL	8.8310 g	8.8660 g	0.0339 g	8.8034 g	8.8275 g
240-97329-K-4	MSA-MW-27D-061918	PrecSep_0, 904.0	T	1000.62 mL	8.8091 g	8.8426 g	0.0339 g	8.7952 g	8.8189 g
MB 160-374037/16		PrecSep_0, 904.0		1000 mL	8.7897 g	8.8248 g	0.0339 g	8.7359 g	8.7607 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Y_Mass	IngDecDate1	IngDecDate2	NativeMassBa	NativeMassY	Ba Carrier 00037
LCS 160-374037/1		PrecSep_0, 904.0		0.02675 g	07/06/2018 14:25	07/10/2018 11:00	0 g	0 g	1 mL
240-97329-K-4	MSA-MW-27D-061918	PrecSep_0, 904.0	T	0.02675 g	07/06/2018 14:25	07/10/2018 11:00	0 g	0 g	1 mL
MB 160-374037/16		PrecSep_0, 904.0		0.02675 g	07/06/2018 14:25	07/10/2018 11:00	0 g	0 g	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Ra-228 00026	Y Carrier 00031				
LCS 160-374037/1		PrecSep_0, 904.0		0.1 mL	0.2 mL				
240-97329-K-4	MSA-MW-27D-061918	PrecSep_0, 904.0	T		0.2 mL				
MB 160-374037/16		PrecSep_0, 904.0			0.2 mL				

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-BME
Pipette ID	RAD112, SEP009, SEP005
Analyst ID - Reagent Drop Witness	CLP per JLC, BME per CPR
Analyst ID - Reagent Drop	JLC, CPR
SOP Number	ST-RC-0041, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Gas Flow Proportional Counter Run Log

Detector: Orange0

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
01/23/13 14:44	5	ICABT 160-226164/12		226164			JLW
01/23/13 14:53	5	ICABT 160-226164/13		226164			JLW
01/23/13 15:01	5	ICABT 160-226164/14		226164			JLW
01/23/13 15:09	5	ICABT 160-226164/15		226164			JLW
01/23/13 15:19	5	ICABT 160-226164/16		226164			JLW
01/23/13 15:26	5	ICABT 160-226164/17		226164			JLW
01/23/13 15:37	5	ICABT 160-226164/18		226164			JLW
01/23/13 15:46	5	ICABT 160-226164/19		226164			JLW
01/24/13 19:06	5	ICVABT 160-226164/20		226164			JLW
01/24/13 19:16	5	ICVABT 160-226164/21		226164			JLW
01/24/13 19:24	5	ICVABT 160-226164/22		226164			JLW
12/02/15 11:00	40	ICABT 160-226164/1		226164			JLW
12/02/15 12:28	40	ICABT 160-226164/2		226164			JLW
12/02/15 13:20	40	ICABT 160-226164/3		226164			JLW
12/02/15 14:12	40	ICABT 160-226164/4		226164			JLW
12/02/15 15:06	40	ICABT 160-226164/5		226164			JLW
12/02/15 16:12	40	ICABT 160-226164/6		226164			JLW
12/02/15 17:07	40	ICABT 160-226164/7		226164			JLW
12/02/15 19:20	40	ICABT 160-226164/8		226164			JLW
12/03/15 15:57	30	ICVABT 160-226164/9		226164			JLW
12/04/15 01:19	30	ICVABT 160-226164/10		226164			JLW
12/04/15 02:01	30	ICVABT 160-226164/11		226164			JLW
11/26/16 11:53	30	ACVABT 160-296340/7		296340			JLW
11/26/16 13:33	30	ACVABT 160-296340/8		296340			JLW
11/26/16 14:19	30	ACVABT 160-296340/9		296340			JLW
03/06/17 22:16	5	ZZZZZ		296340			
03/06/17 22:16	5	ACVABT 160-296340/4		296340			JLW
03/06/17 23:00	5	ZZZZZ		296340			
03/06/17 23:00	5	ACVABT 160-296340/5		296340			JLW
03/06/17 23:10	5	ZZZZZ		296340			
03/06/17 23:10	5	ACVABT 160-296340/6		296340			JLW
06/29/18 11:58	1000	ICB 160-373452/1		373452			PS
07/10/18 00:05	2	CCVB 160-374562/15		374562			ALS
07/10/18 00:16	2	CCVA 160-374562/23		374562			
07/10/18 01:04	2	CCVA 160-374562/47		374562			ALS
07/10/18 01:14	200	CCB 160-374562/54		374562			ALS
07/10/18 09:39	200	ZZZZZ		374562			
07/10/18 14:31	200	LCS 160-374037/1-A		374562	374037	904.0	ALS

Detector: Orange2

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
01/23/13 14:45	5	ICABT 160-226166/12		226166			JLW
01/23/13 14:53	5	ICABT 160-226166/13		226166			JLW
01/23/13 15:00	5	ICABT 160-226166/14		226166			JLW
01/23/13 15:09	5	ICABT 160-226166/15		226166			JLW
01/23/13 15:19	5	ICABT 160-226166/16		226166			JLW
01/23/13 15:27	5	ICABT 160-226166/17		226166			JLW
01/23/13 15:37	5	ICABT 160-226166/18		226166			JLW
01/23/13 15:46	5	ICABT 160-226166/19		226166			JLW
01/24/13 19:06	5	ICVABT 160-226166/20		226166			JLW
01/24/13 19:16	5	ICVABT 160-226166/21		226166			JLW
01/24/13 19:24	5	ICVABT 160-226166/22		226166			JLW

Gas Flow Proportional Counter Run Log

Detector: Orange2 (Continued)

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
12/02/15 11:01	40	ICABT 160-226166/1		226166			JLW
12/02/15 12:28	40	ICABT 160-226166/2		226166			JLW
12/02/15 13:20	40	ICABT 160-226166/3		226166			JLW
12/02/15 14:12	40	ICABT 160-226166/4		226166			JLW
12/02/15 15:06	40	ICABT 160-226166/5		226166			JLW
12/02/15 16:13	40	ICABT 160-226166/6		226166			JLW
12/02/15 17:07	40	ICABT 160-226166/7		226166			JLW
12/02/15 19:20	40	ICABT 160-226166/8		226166			JLW
12/03/15 15:57	30	ICVABT 160-226166/9		226166			JLW
12/03/15 18:18	30	ICVABT 160-226166/10		226166			JLW
12/03/15 18:54	30	ICVABT 160-226166/11		226166			JLW
11/26/16 11:53	30	ACVABT 160-296342/7		296342			JLW
11/26/16 13:01	30	ACVABT 160-296342/8		296342			JLW
11/26/16 13:33	30	ACVABT 160-296342/9		296342			JLW
03/06/17 22:17	5	ACVABT 160-296342/4		296342			JLW
03/06/17 22:17	5	ZZZZZ		296342			
03/06/17 22:26	5	ACVABT 160-296342/5		296342			JLW
03/06/17 22:26	5	ZZZZZ		296342			
03/06/17 22:33	5	ACVABT 160-296342/6		296342			JLW
03/06/17 22:33	5	ZZZZZ		296342			
06/29/18 11:58	1000	ICB 160-373452/3		373452			PS
07/10/18 00:05	2	CCVB 160-374562/18		374562			ALS
07/10/18 00:16	2	CCVA 160-374562/25		374562			
07/10/18 01:05	2	CCVA 160-374562/48		374562			ALS
07/10/18 01:14	200	CCB 160-374562/56		374562			
07/10/18 05:36	0	CCB 160-374562/78		374562			ALS
07/10/18 09:39	200	ZZZZZ		374562			
07/10/18 14:32	200	ZZZZZ		374562			

Detector: Purple0

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/03/13 15:26	5	ICABT 160-233497/12		233497			JLW
02/03/13 16:02	5	ICABT 160-233497/13		233497			JLW
02/03/13 16:23	5	ICABT 160-233497/14		233497			JLW
02/03/13 16:34	5	ICABT 160-233497/15		233497			JLW
02/03/13 16:41	5	ICABT 160-233497/16		233497			JLW
02/03/13 16:48	5	ICABT 160-233497/17		233497			JLW
02/03/13 17:05	5	ICABT 160-233497/18		233497			JLW
02/03/13 17:14	5	ICABT 160-233497/19		233497			JLW
02/04/13 22:27	5	ICVABT 160-233497/20		233497			JLW
02/04/13 23:10	5	ICVABT 160-233497/21		233497			JLW
02/04/13 23:19	5	ICVABT 160-233497/22		233497			JLW
01/16/16 10:15	40	ICABT 160-233497/1		233497			JLW
01/16/16 11:01	40	ICABT 160-233497/2		233497			JLW
01/16/16 11:43	40	ICABT 160-233497/3		233497			JLW
01/16/16 12:25	40	ICABT 160-233497/4		233497			JLW
01/16/16 13:06	40	ICABT 160-233497/5		233497			JLW
01/16/16 13:49	40	ICABT 160-233497/6		233497			JLW
01/16/16 14:32	40	ICABT 160-233497/7		233497			JLW
01/16/16 15:15	40	ICABT 160-233497/8		233497			JLW
01/17/16 17:23	30	ICVABT 160-233497/9		233497			JLW
01/17/16 22:54	30	ICVABT 160-233497/10		233497			JLW

Gas Flow Proportional Counter Run Log

Detector: Purple0 (Continued)

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
01/17/16 23:37	30	ICVABT 160-233497/11		233497			JLW
11/30/16 20:12	30	ACVABT 160-298578/4		298578			PS
12/01/16 13:09	30	ACVABT 160-298578/5		298578			PS
12/01/16 13:44	30	ACVABT 160-298578/6		298578			PS
03/14/17 19:34	5	ACVABT 160-298578/1		298578			PS
03/14/17 20:25	5	ACVABT 160-298578/2		298578			PS
03/14/17 20:41	5	ACVABT 160-298578/3		298578			PS
06/29/18 11:27	1000	ICB 160-373456/1		373456			PS
07/10/18 00:05	2	CCVA 160-374666/10		374666			RTM
07/10/18 00:17	2	CCVB 160-374666/13		374666			RTM
07/10/18 01:15	200	CCB 160-374666/40		374666			RTM
07/10/18 09:41	200	ZZZZZ		374666			
07/10/18 14:35	200	240-97329-4	MSA-MW-27D-061918	374666	374037	904.0	RTM

Detector: Purple2

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/03/13 15:27	5	ICABT 160-233499/12		233499			PS
02/03/13 16:02	5	ICABT 160-233499/13		233499			PS
02/03/13 16:23	5	ICABT 160-233499/14		233499			PS
02/03/13 16:34	5	ICABT 160-233499/15		233499			PS
02/03/13 16:41	5	ICABT 160-233499/16		233499			PS
02/03/13 16:48	5	ICABT 160-233499/17		233499			PS
02/03/13 17:05	5	ICABT 160-233499/18		233499			PS
02/03/13 17:14	5	ICABT 160-233499/19		233499			PS
02/04/13 22:27	5	ICVABT 160-233499/20		233499			PS
02/04/13 22:35	5	ICVABT 160-233499/21		233499			PS
02/04/13 22:42	5	ICVABT 160-233499/22		233499			PS
01/16/16 10:15	40	ICABT 160-233499/1		233499			PS
01/16/16 11:01	40	ICABT 160-233499/2		233499			PS
01/16/16 11:43	40	ICABT 160-233499/3		233499			PS
01/16/16 12:25	40	ICABT 160-233499/4		233499			PS
01/16/16 13:06	40	ICABT 160-233499/5		233499			PS
01/16/16 13:49	40	ICABT 160-233499/6		233499			PS
01/16/16 14:32	40	ICABT 160-233499/7		233499			PS
01/16/16 15:15	40	ICABT 160-233499/8		233499			PS
01/17/16 17:24	30	ICVABT 160-233499/9		233499			PS
01/17/16 18:08	30	ICVABT 160-233499/10		233499			PS
01/17/16 19:01	30	ICVABT 160-233499/11		233499			PS
11/30/16 20:12	30	ACVABT 160-298580/4		298580			PS
11/30/16 20:48	30	ACVABT 160-298580/5		298580			PS
11/30/16 21:27	30	ACVABT 160-298580/6		298580			PS
03/14/17 19:34	5	ACVABT 160-298580/1		298580			PS
03/14/17 19:40	5	ACVABT 160-298580/2		298580			PS
03/14/17 19:45	5	ACVABT 160-298580/3		298580			PS
06/29/18 11:27	1000	ICB 160-373456/3		373456			PS
07/10/18 00:05	2	CCVA 160-374666/11		374666			
07/10/18 00:17	2	CCVB 160-374666/15		374666			RTM
07/10/18 01:06	2	CCVA 160-374666/37		374666			RTM
07/10/18 01:15	200	CCB 160-374666/42		374666			
07/10/18 05:37	200	CCB 160-374666/64		374666			RTM
07/10/18 09:42	200	ZZZZZ		374666			
07/10/18 14:35	200	MB 160-374037/16-A		374666	374037	904.0	RTM

Gas Flow Proportional Counter Run Log

Detector: Purple6

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/17/17 01:16	15	ICRA6 160-293744/1		293744			PS
02/17/17 01:33	15	ICRA6 160-293744/2		293744			PS
02/17/17 01:55	15	ICRA6 160-293744/3		293744			PS
02/17/17 02:12	15	ICRA6 160-293744/4		293744			PS
02/17/17 02:29	15	ICRA6 160-293744/5		293744			PS
02/17/17 02:46	15	ICRA6 160-293744/6		293744			PS
02/17/17 03:04	15	ICRA6 160-293744/7		293744			PS
02/21/17 19:12	5	ICVRA6 160-293744/8		293744			PS
02/21/17 20:17	5	ICVRA6 160-293744/9		293744			PS
02/21/17 20:28	5	ICVRA6 160-293744/10		293744			PS
06/29/18 11:27	1000	ICB 160-373456/7		373456			PS
07/12/18 00:05	2	CCVA 160-375103/8		375103			CDR
07/12/18 00:09	2	CCVB 160-375103/21		375103			CDR
07/12/18 01:01	200	CCB 160-375103/46		375103			
07/12/18 05:41	200	CCB 160-375103/67		375103			CDR
07/12/18 09:40	200	ZZZZZ		375103			
07/12/18 14:55	100	ZZZZZ		375103			
07/12/18 19:15	100	LCS 160-374770/1-A		375103	374770	903.0	CDR
07/12/18 21:14	100	ZZZZZ		375103			

Detector: Purple7

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/17/17 01:33	15	ICRA6 160-293745/1		293745			PS
02/17/17 01:55	15	ICRA6 160-293745/2		293745			PS
02/17/17 02:12	15	ICRA6 160-293745/3		293745			PS
02/17/17 02:29	15	ICRA6 160-293745/4		293745			PS
02/17/17 02:46	15	ICRA6 160-293745/5		293745			PS
02/17/17 03:04	15	ICRA6 160-293745/6		293745			PS
02/17/17 03:21	15	ICRA6 160-293745/7		293745			PS
02/21/17 20:17	5	ICVRA6 160-293745/8		293745			PS
02/21/17 20:28	5	ICVRA6 160-293745/9		293745			PS
02/21/17 20:51	5	ICVRA6 160-293745/10		293745			PS
06/29/18 11:27	1000	ICB 160-373456/8		373456			PS
07/12/18 00:05	2	CCVA 160-375103/8		375103			CDR
07/12/18 00:09	2	CCVB 160-375103/22		375103			CDR
07/12/18 01:01	200	CCB 160-375103/44		375103			CDR
07/12/18 06:23	200	ZZZZZ		375103			
07/12/18 09:56	0	ZZZZZ		375103			
07/12/18 14:55	100	ZZZZZ		375103			
07/12/18 19:15	100	LCSD 160-374770/2-A		375103	374770	903.0	CDR
07/12/18 21:14	100	ZZZZZ		375103			

Detector: Purple15

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/16/17 22:51	15	ICRA6 160-293724/1		293724			PS
02/16/17 23:07	15	ICRA6 160-293724/2		293724			PS
02/16/17 23:25	15	ICRA6 160-293724/3		293724			PS
02/16/17 23:46	15	ICRA6 160-293724/4		293724			PS
02/17/17 00:12	15	ICRA6 160-293724/5		293724			PS
02/17/17 00:31	15	ICRA6 160-293724/6		293724			PS
02/17/17 00:47	15	ICRA6 160-293724/7		293724			PS

Gas Flow Proportional Counter Run Log

Detector: Purple15 (Continued)

Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/17/17 02:17	5	ICVRA6 160-293724/8		293724			PS
02/17/17 02:29	5	ICVRA6 160-293724/9		293724			PS
02/17/17 02:35	5	ICVRA6 160-293724/10		293724			PS
06/29/18 11:28	1000	ICB 160-373456/16		373456			PS
07/12/18 00:05	2	CCVA 160-375103/4		375103			CDR
07/12/18 00:12	2	CCVB 160-375103/28		375103			CDR
07/12/18 01:01	200	CCB 160-375103/54		375103			
07/12/18 05:42	200	CCB 160-375103/73		375103			CDR
07/12/18 09:41	200	ZZZZZ		375103			
07/12/18 14:30	200	ZZZZZ		375103			
07/12/18 19:16	100	MB 160-374770/6-A		375103	374770	903.0	CDR

Detector: Purple16

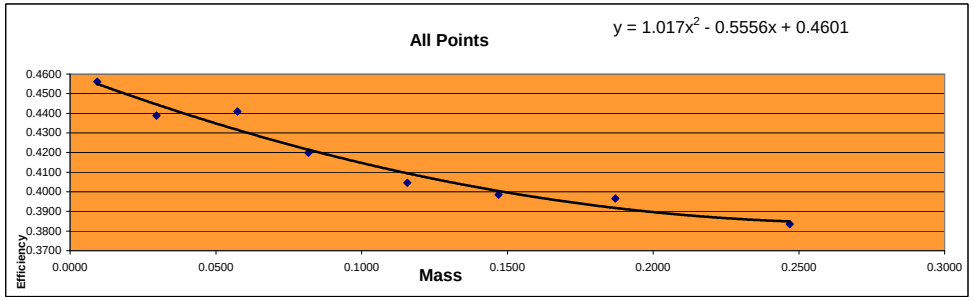
Analysis Date	Count Minutes	Lab Sample ID	Client Sample ID	Analysis Batch	Prep Batch	Method	Analyst Initials
02/16/17 10:40	15	ICRA6 160-293725/1		293725			JLW
02/16/17 11:53	15	ICRA6 160-293725/2		293725			JLW
02/16/17 12:12	15	ICRA6 160-293725/3		293725			JLW
02/16/17 13:01	15	ICRA6 160-293725/4		293725			JLW
02/16/17 21:20	15	ICRA6 160-293725/5		293725			JLW
02/16/17 21:37	15	ICRA6 160-293725/6		293725			JLW
02/16/17 22:07	15	ICRA6 160-293725/7		293725			JLW
02/16/17 23:09	5	ICVRA6 160-293725/8		293725			JLW
02/16/17 23:50	5	ZZZZZ		293725			
02/17/17 00:09	5	ICVRA6 160-293725/10		293725			JLW
02/17/17 00:18	5	ICVRA6 160-293725/11		293725			JLW
06/29/18 11:28	1000	ICB 160-373456/17		373456			PS
07/12/18 00:05	2	CCVA 160-375103/6		375103			CDR
07/12/18 00:14	2	CCVB 160-375103/29		375103			CDR
07/12/18 01:01	200	CCB 160-375103/55		375103			
07/12/18 05:42	200	CCB 160-375103/74		375103			CDR
07/12/18 09:41	200	ZZZZZ		375103			
07/12/18 14:56	100	ZZZZZ		375103			
07/12/18 19:16	100	240-97329-4	MSA-MW-27D-061918	375103	374770	903.0	CDR

Curve is for Gross Beta
Strontium 90
and
Total Strontium

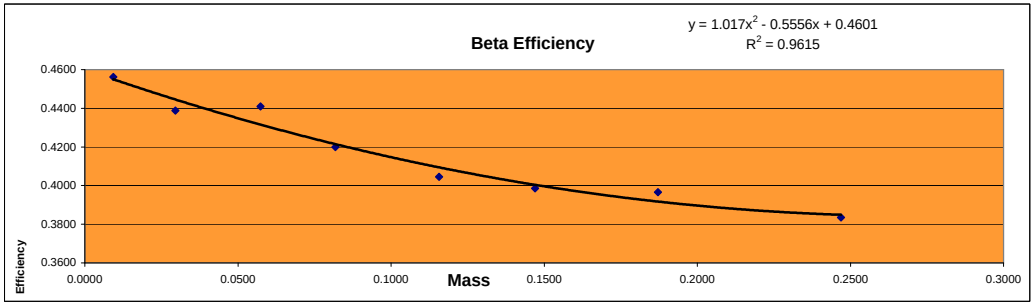
Orange 0

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
0	B1	1/23/2013 14:44	0.0093	5	94846	18969.200	0.4561	1mL
0	B2	1/23/2013 15:46	0.0296	5	91244	18248.800	0.4388	1mL
0	B3	1/23/2013 15:37	0.0574	5	91691	18338.200	0.4409	1mL
0	B4	1/23/2013 15:26	0.0818	5	87307	17461.400	0.4199	1mL
0	B5	1/23/2013 15:19	0.1157	5	84120	16824.000	0.4045	1mL
0	B6	1/23/2013 15:09	0.1470	5	82888	16577.600	0.3986	1mL
0	B7	1/23/2013 15:01	0.1871	5	82469	16493.800	0.3966	1mL
0	B8	1/23/2013 14:53	0.2469	5	79762	15952.400	0.3836	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4561	0.4550	0.24%
0.0296	0.4388	0.4445	-1.29%
0.0574	0.4409	0.4316	2.17%
0.0818	0.4199	0.4215	-0.38%
0.1157	0.4045	0.4094	-1.20%
0.1470	0.3986	0.4004	-0.45%
0.1871	0.3966	0.3917	1.24%
0.2469	0.3836	0.3849	-0.35%



Mass	Efficiency
0.0093	0.4561
0.0296	0.4388
0.0574	0.4409
0.0818	0.4199
0.1157	0.4045
0.1470	0.3986
0.1871	0.3966
0.2469	0.3836



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

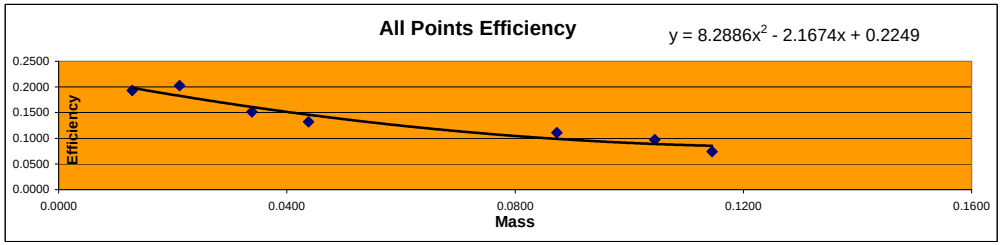
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	1/23/2013
Elapsed Time:	1224.000 days
Half Life:	10409.625 days
Exponential Term:	0.92173026
Corrected Activity:	20794.2346 dpm/mL
Decay Activity (Sr/Y-90)	41588.4692 dpm

Curve is for Gross Alpha

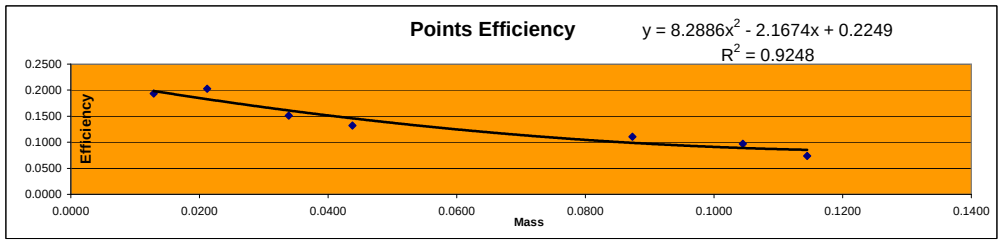
Orange 0

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
0	ICABT-51465;A1	12/2/2015 11:00	40	18384	459.600	2374.5	0.1936	1mL	0.0129
0	ICABT-51465;A2	12/2/2015 19:20	40	19241	481.025	2374.5	0.2026	1mL	0.0212
0	ICABT-51465;A3	12/2/2015 17:07	40	14368	359.200	2374.5	0.1513	1mL	0.0339
0	ICABT-51465;A4	12/2/2015 16:12	40	12524	313.100	2374.5	0.1319	1mL	0.0438
0	ICABT-51465;A6	12/2/2015 14:12	40	21054	526.350	4749.0	0.1108	2mL	0.0873
0	ICABT-51465;A7	12/2/2015 13:20	40	18456	461.400	4749.0	0.0972	2mL	0.1045
0	ICABT-51465;A8	12/2/2015 12:28	40	14043	351.075	4749.0	0.0739	2mL	0.1145

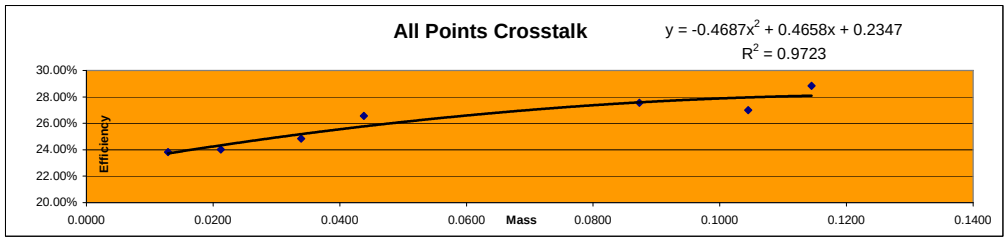
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1936	0.1983	-2.40%
0.0212	0.2026	0.1827	10.90%
0.0339	0.1513	0.1610	-6.01%
0.0438	0.1319	0.1459	-9.60%
0.0873	0.1108	0.0989	12.12%
0.1045	0.0972	0.0889	9.26%
0.1145	0.0739	0.0854	-13.43%



Mass	Efficiency
0.0129	0.1936
0.0212	0.2026
0.0339	0.1513
0.0438	0.1319
0.0873	0.1108
0.1045	0.0972
0.1145	0.0739



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
0	ICABT-51465;A1	0.0129	40	18384	5751	459.60	143.78	23.83%	Min 23.83%
0	ICABT-51465;A2	0.0212	40	19241	6080	481.03	152.00	24.01%	
0	ICABT-51465;A3	0.0339	40	14368	4751	359.20	118.78	24.85%	
0	ICABT-51465;A4	0.0438	40	12524	4532	313.10	113.30	26.57%	Max 28.83%
0	ICABT-51465;A6	0.0873	40	21054	8009	526.35	200.23	27.56%	
0	ICABT-51465;A7	0.1045	40	18456	6828	461.40	170.70	27.01%	
0	ICABT-51465;A8	0.1145	40	14043	5688	351.08	142.20	28.83%	Mean 26.09%



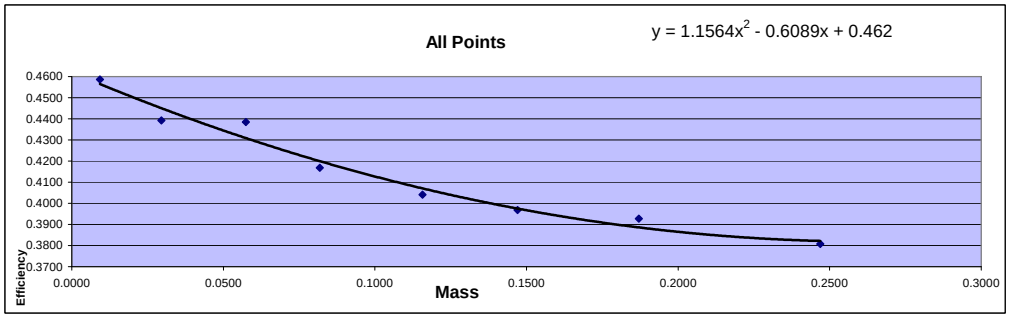
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

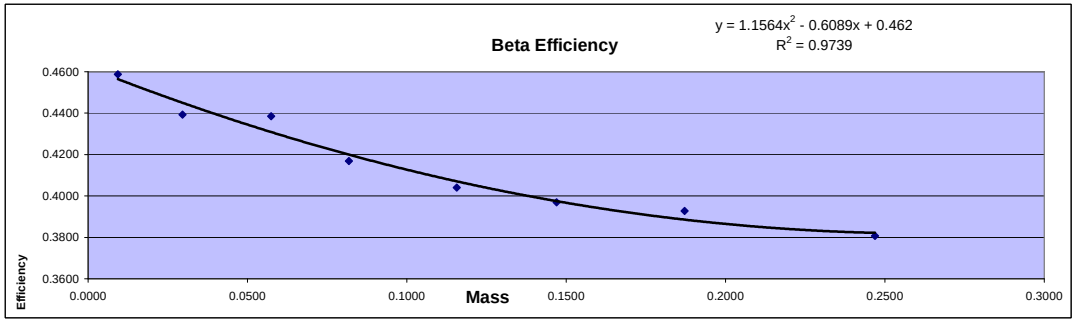
Purple 0

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41558.018 CPM	Sr-90 Eff	Standard Aliquot
0	B1	2/3/2013 15:26	0.0093	5	95312	19062.400	0.4587	1mL
0	B2	2/3/2013 17:14	0.0296	5	91281	18256.200	0.4393	1mL
0	B3	2/3/2013 17:05	0.0574	5	91120	18224.000	0.4385	1mL
0	B4	2/3/2013 16:48	0.0818	5	86609	17321.800	0.4168	1mL
0	B5	2/3/2013 16:41	0.1157	5	83957	16791.400	0.4040	1mL
0	B6	2/3/2013 16:34	0.1470	5	82467	16493.400	0.3969	1mL
0	B7	2/3/2013 16:23	0.1871	5	81608	16321.600	0.3927	1mL
0	B8	2/3/2013 16:02	0.2469	5	79105	15821.000	0.3807	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4587	0.4564	0.49%
0.0296	0.4393	0.4450	-1.28%
0.0574	0.4385	0.4309	1.78%
0.0818	0.4168	0.4199	-0.74%
0.1157	0.4040	0.4070	-0.73%
0.1470	0.3969	0.3975	-0.15%
0.1871	0.3927	0.3886	1.08%
0.2469	0.3807	0.3822	-0.38%



Mass	Efficiency
0.0093	0.4587
0.0296	0.4393
0.0574	0.4385
0.0818	0.4168
0.1157	0.4040
0.1470	0.3969
0.1871	0.3927
0.2469	0.3807



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

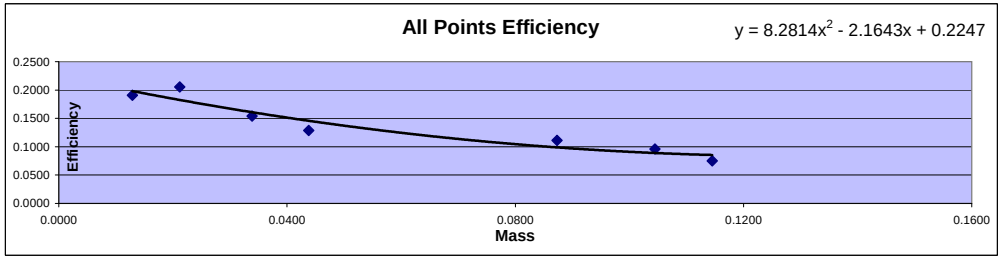
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	2/3/2013
Elapsed Time:	1235.000 days
Half Life:	10409.625 days
Exponential Term:	0.92105537
Corrected Activity:	20779.0092 dpm/mL
Decay Activity (Sr/Y-90)	41558.0185 dpm

Curve is for Gross Alpha

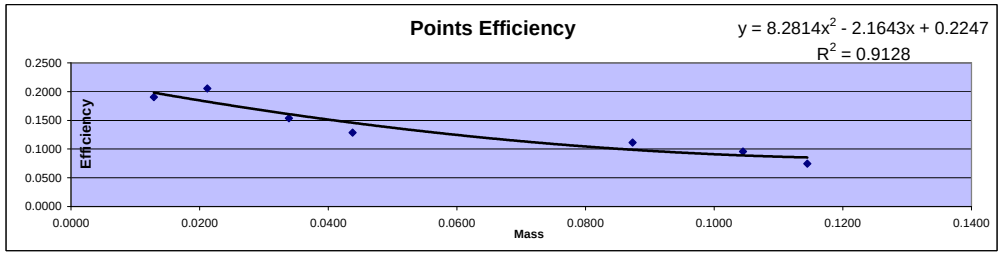
Purple 0

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
0	ICABT-51465;A1	1/16/2016 10:15	40	18103	452.575	2374.5	0.1906	1mL	0.0129
0	ICABT-51465;A2	1/16/2016 15:15	40	19498	487.450	2374.5	0.2053	1mL	0.0212
0	ICABT-51465;A3	1/16/2016 14:32	40	14616	365.400	2374.5	0.1539	1mL	0.0339
0	ICABT-51465;A4	1/16/2016 13:49	40	12219	305.475	2374.5	0.1286	1mL	0.0438
0	ICABT-51465;A6	1/16/2016 12:25	40	21130	528.250	4749.0	0.1112	2mL	0.0873
0	ICABT-51465;A7	1/16/2016 11:43	40	18214	455.350	4749.0	0.0959	2mL	0.1045
0	ICABT-51465;A8	1/16/2016 11:01	40	14219	355.475	4749.0	0.0749	2mL	0.1145

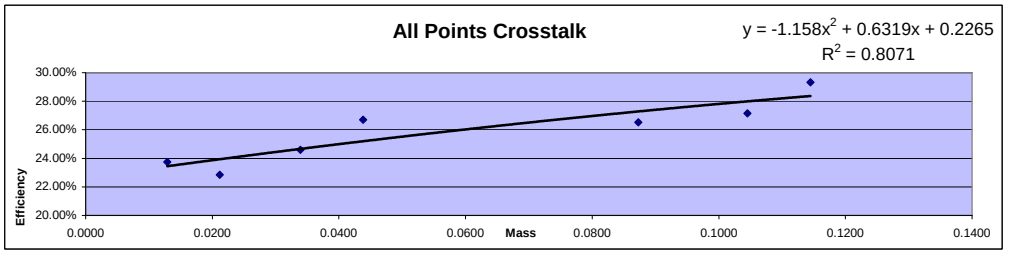
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1906	0.1982	-3.82%
0.0212	0.2053	0.1825	12.46%
0.0339	0.1539	0.1608	-4.33%
0.0438	0.1286	0.1458	-11.76%
0.0873	0.1112	0.0989	12.50%
0.1045	0.0959	0.0890	7.78%
0.1145	0.0749	0.0855	-12.41%



Mass	Efficiency
0.0129	0.1906
0.0212	0.2053
0.0339	0.1539
0.0438	0.1286
0.0873	0.1112
0.1045	0.0959
0.1145	0.0749



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
0	ICABT-51465;A1	0.0129	40.00	18103	5640	452.58	141.00	23.75%	Min
0	ICABT-51465;A2	0.0212	40.00	19498	5772	487.45	144.30	22.84%	22.84%
0	ICABT-51465;A3	0.0339	40.00	14616	4765	365.40	119.13	24.59%	
0	ICABT-51465;A4	0.0438	40.00	12219	4453	305.48	111.33	26.71%	Max
0	ICABT-51465;A6	0.0873	40.00	21130	7624	528.25	190.60	26.51%	
0	ICABT-51465;A7	0.1045	40.00	18214	6792	455.35	169.80	27.16%	Mean
0	ICABT-51465;A8	0.1145	40.00	14219	5901	355.48	147.53	29.33%	25.84%



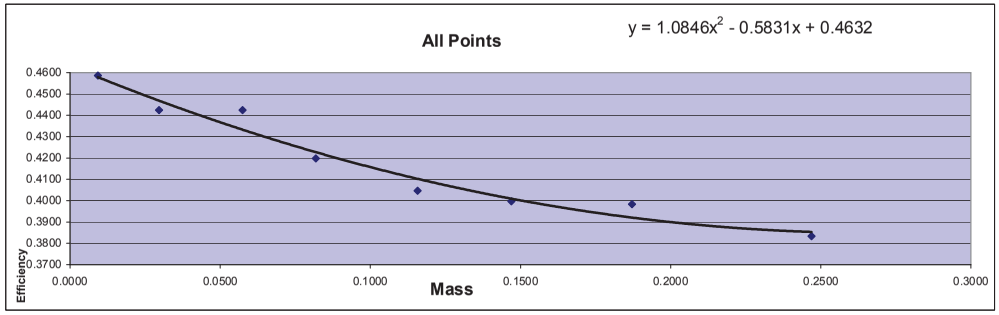
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

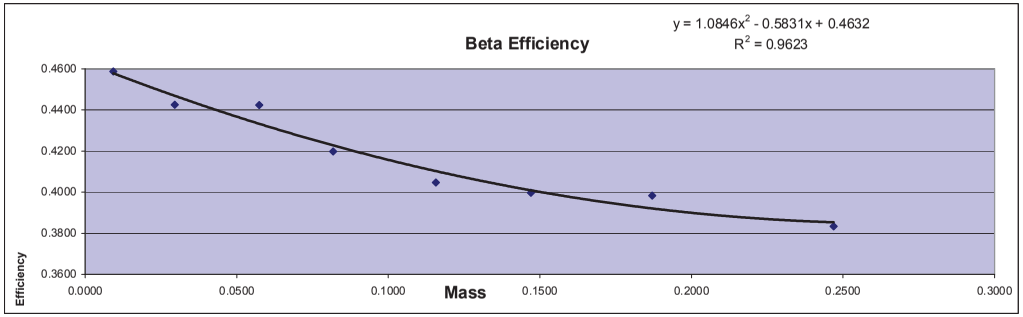
Purple 2

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41558.018 CPM	Sr-90 Eff	Standard Aliquot
2	B1	2/3/2013 16:23	0.0093	5	95309	19061.800	0.4587	1mL
2	B2	2/3/2013 16:02	0.0296	5	91945	18389.000	0.4425	1mL
2	B3	2/3/2013 15:27	0.0574	5	91932	18386.400	0.4424	1mL
2	B4	2/3/2013 17:14	0.0818	5	87233	17446.600	0.4198	1mL
2	B5	2/3/2013 17:05	0.1157	5	84097	16819.400	0.4047	1mL
2	B6	2/3/2013 16:48	0.1470	5	83042	16608.400	0.3996	1mL
2	B7	2/3/2013 16:41	0.1871	5	82761	16552.200	0.3983	1mL
2	B8	2/3/2013 16:34	0.2469	5	79652	15930.400	0.3833	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4587	0.4579	0.18%
0.0296	0.4425	0.4469	-0.98%
0.0574	0.4424	0.4333	2.11%
0.0818	0.4198	0.4228	-0.70%
0.1157	0.4047	0.4103	-1.35%
0.1470	0.3996	0.4009	-0.32%
0.1871	0.3983	0.3921	1.59%
0.2469	0.3833	0.3853	-0.52%



Mass	Efficiency
0.0093	0.4587
0.0296	0.4425
0.0574	0.4424
0.0818	0.4198
0.1157	0.4047
0.1470	0.3996
0.1871	0.3983
0.2469	0.3833



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

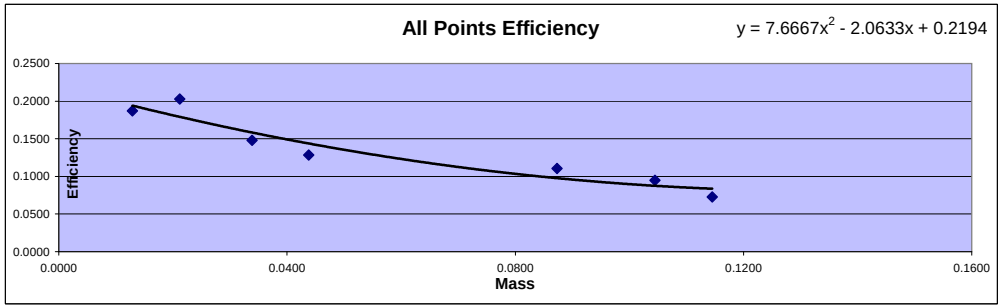
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	2/3/2013
Elapsed Time:	1235.000 days
Half Life:	10409.625 days
Exponential Term:	0.921055374
Corrected Activity:	20779.00924 dpm/mL
Decay Activity (Sr/Y-90)	41558.01848 dpm

Curve is for Gross Alpha

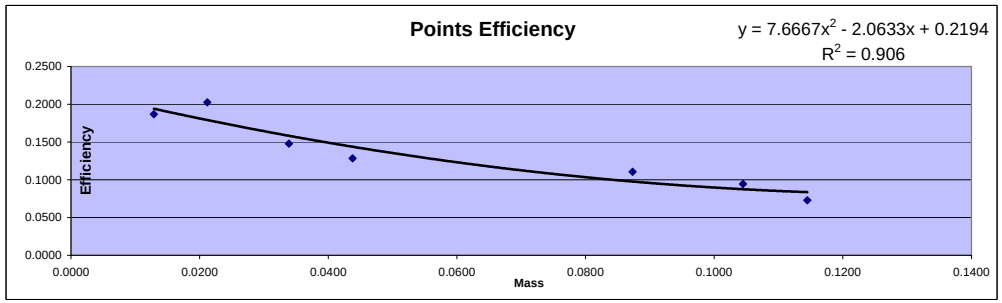
Purple 2

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
2	ICABT-51465;A1	1/16/2016 11:43	40	17766	444.150	2374.5	0.1870	1mL	0.0129
2	ICABT-51465;A2	1/16/2016 11:01	40	19252	481.300	2374.5	0.2027	1mL	0.0212
2	ICABT-51465;A3	1/16/2016 10:15	40	14048	351.200	2374.5	0.1479	1mL	0.0339
2	ICABT-51465;A4	1/16/2016 15:15	40	12208	305.200	2374.5	0.1285	1mL	0.0438
2	ICABT-51465;A6	1/16/2016 13:49	40	20997	524.925	4749.0	0.1105	2mL	0.0873
2	ICABT-51465;A7	1/16/2016 13:06	40	17971	449.275	4749.0	0.0946	2mL	0.1045
2	ICABT-51465;A8	1/16/2016 12:25	40	13811	345.275	4749.0	0.0727	2mL	0.1145

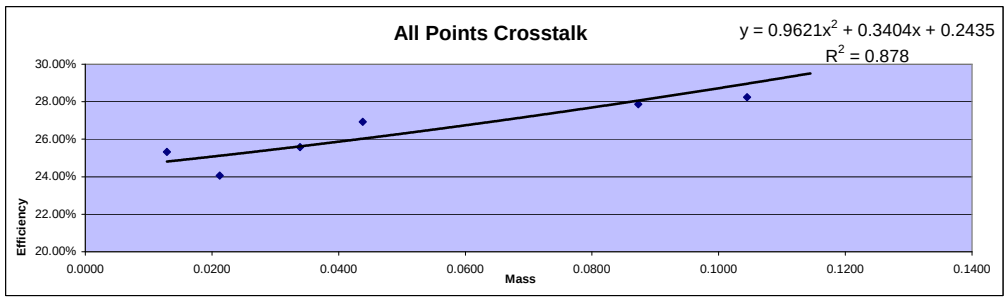
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1870	0.1941	-3.61%
0.0212	0.2027	0.1791	13.17%
0.0339	0.1479	0.1583	-6.55%
0.0438	0.1285	0.1437	-10.58%
0.0873	0.1105	0.0977	13.13%
0.1045	0.0946	0.0875	8.11%
0.1145	0.0727	0.0837	-13.10%



Mass	Efficiency
0.0129	0.1870
0.0212	0.2027
0.0339	0.1479
0.0438	0.1285
0.0873	0.1105
0.1045	0.0946
0.1145	0.0727



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
2	ICABT-51465;A1	0.0129	40.00	17766	6023	444.15	150.58	25.32%	Min
2	ICABT-51465;A2	0.0212	40.00	19252	6100	481.30	152.50	24.06%	24.06%
2	ICABT-51465;A3	0.0339	40.00	14048	4827	351.20	120.68	25.57%	
2	ICABT-51465;A4	0.0438	40.00	12208	4498	305.20	112.45	26.92%	Max
2	ICABT-51465;A6	0.0873	40.00	20997	8109	524.93	202.73	27.86%	
2	ICABT-51465;A7	0.1045	40.00	17971	7075	449.28	176.88	28.25%	Mean
2	ICABT-51465;A8	0.1145	40.00	13811	5955	345.28	148.88	30.13%	26.87%

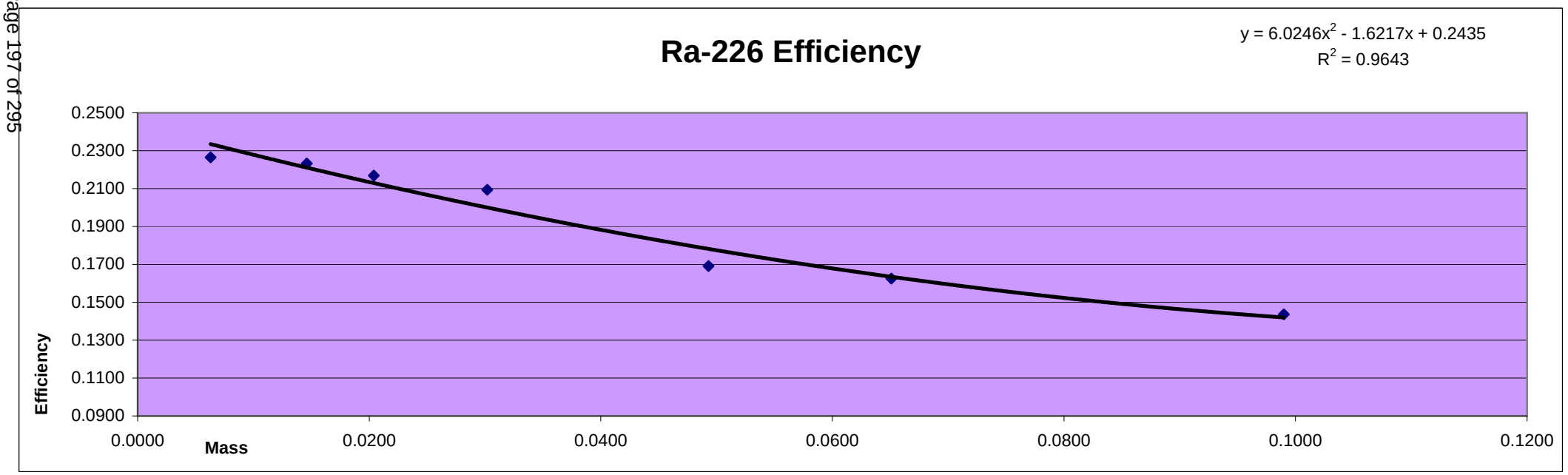


Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Ra-226 Calibration 2017

Purple 6

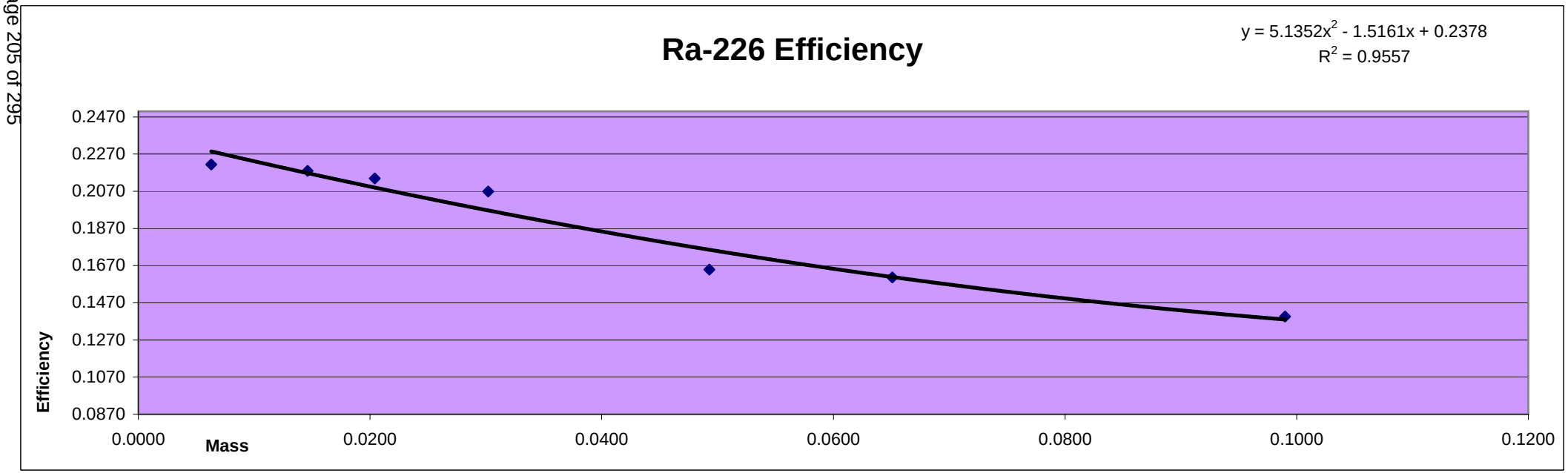
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 3:04	27887	1859.1333	2/13/2017 13:30	2.4280	0.4487	1706.4224	7534.6	0.2265
R3	0.0146	15.00	2/17/2017 2:46	42404	2826.9333	2/13/2017 13:30	2.4245	0.6933	1681.8981	7534.6	0.2232
R4	0.0204	15.00	2/17/2017 2:29	43110	2874.0000	2/13/2017 13:30	2.4211	0.7265	1633.9254	7534.6	0.2169
R5	0.0302	15.00	2/17/2017 2:12	49224	3281.6000	2/13/2017 13:30	2.4177	0.8604	1577.5170	7534.6	0.2094
R6	0.0493	15.00	2/17/2017 1:55	43200	2880.0000	2/13/2017 13:30	2.4143	0.9364	1273.9490	7534.6	0.1691
R7	0.0651	15.00	2/17/2017 1:33	41050	2736.6667	2/13/2017 13:30	2.4099	0.9274	1224.5666	7534.6	0.1625
R8	0.0990	15.00	2/17/2017 1:16	36714	2447.6000	2/13/2017 13:30	2.4065	0.9402	1081.8109	7534.6	0.1436



Ra-226 Calibration 2017

Purple 7

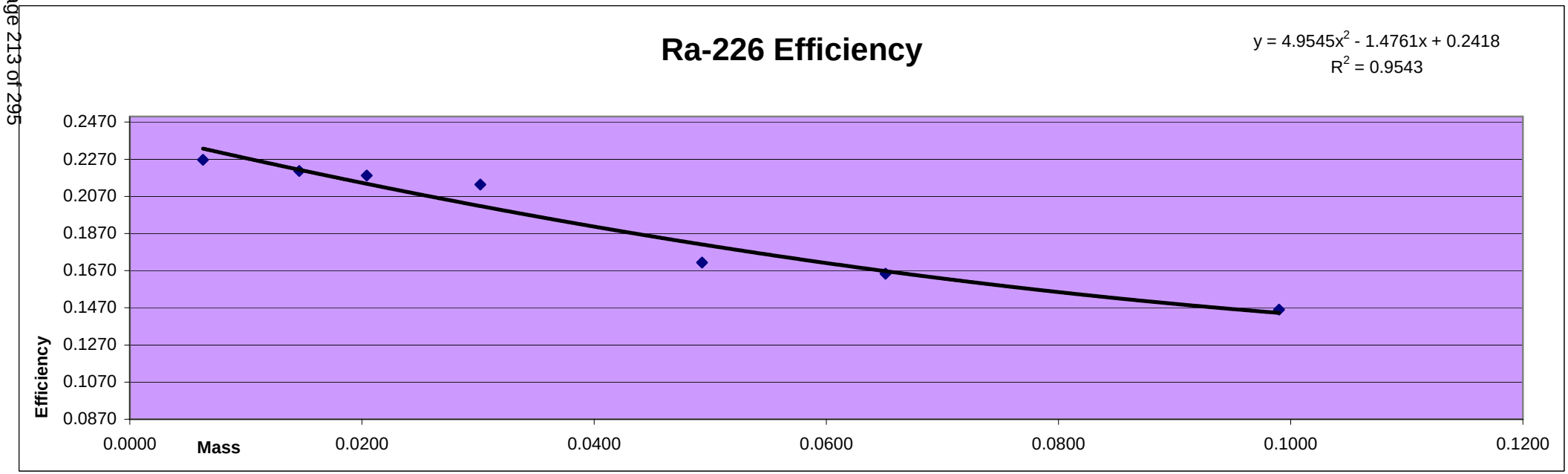
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 3:21	27296	1819.7333	2/13/2017 13:30	2.4314	0.4487	1667.9142	7534.6	0.2214
R3	0.0146	15.00	2/17/2017 3:04	41460	2764.0000	2/13/2017 13:30	2.4280	0.6933	1642.0718	7534.6	0.2179
R4	0.0204	15.00	2/17/2017 2:46	42588	2839.2000	2/13/2017 13:30	2.4245	0.7265	1611.9006	7534.6	0.2139
R5	0.0302	15.00	2/17/2017 2:29	48706	3247.0667	2/13/2017 13:30	2.4211	0.8604	1558.7293	7534.6	0.2069
R6	0.0493	15.00	2/17/2017 2:12	42196	2813.0667	2/13/2017 13:30	2.4178	0.9364	1242.5662	7534.6	0.1649
R7	0.0651	15.00	2/17/2017 1:55	40652	2710.1333	2/13/2017 13:30	2.4143	0.9274	1210.4667	7534.6	0.1607
R8	0.0990	15.00	2/17/2017 1:33	35742	2382.8000	2/13/2017 13:30	2.4099	0.9402	1051.6799	7534.6	0.1396



Ra-226 Calibration 2017

Purple 15

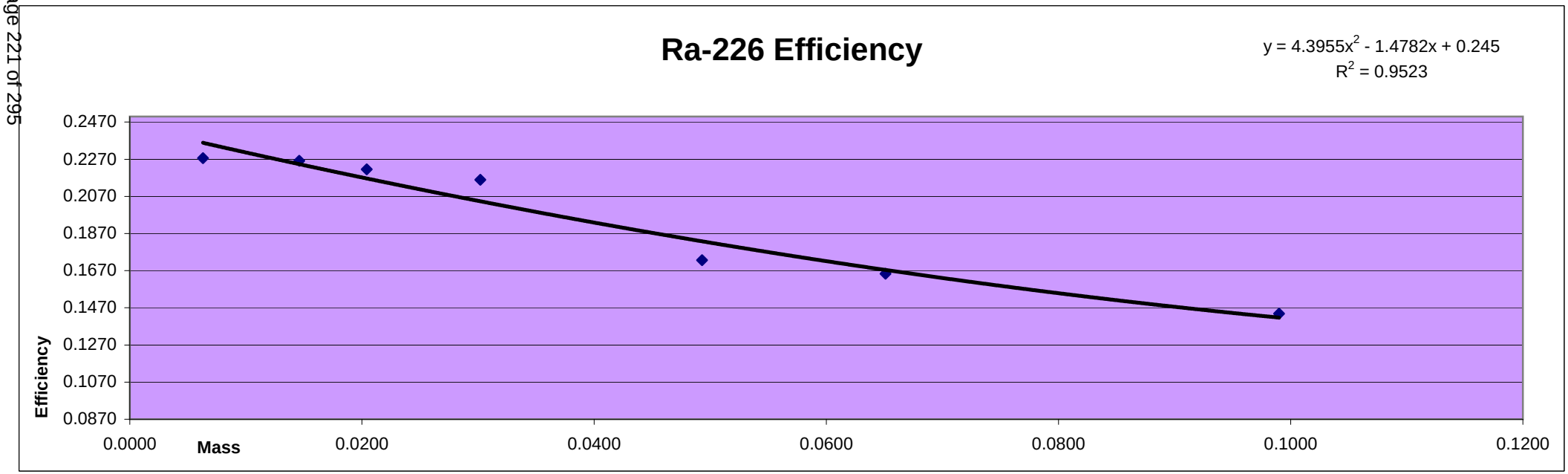
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 0:47	27595	1839.6667	2/13/2017 13:30	2.4008	0.4487	1707.6783	7534.6	0.2266
R3	0.0146	15.00	2/17/2017 0:31	41460	2764.0000	2/13/2017 13:30	2.3975	0.6933	1662.9928	7534.6	0.2207
R4	0.0204	15.00	2/17/2017 0:12	42900	2860.0000	2/13/2017 13:30	2.3937	0.7265	1644.6240	7534.6	0.2183
R5	0.0302	15.00	2/16/2017 23:46	49556	3303.7333	2/13/2017 13:30	2.3883	0.8604	1607.7259	7534.6	0.2134
R6	0.0493	15.00	2/16/2017 23:25	43254	2883.6000	2/13/2017 13:30	2.3842	0.9364	1291.6646	7534.6	0.1714
R7	0.0651	15.00	2/16/2017 23:07	41241	2749.4000	2/13/2017 13:30	2.3804	0.9274	1245.4897	7534.6	0.1653
R8	0.0990	15.00	2/16/2017 22:51	36894	2459.6000	2/13/2017 13:30	2.3771	0.9402	1100.5444	7534.6	0.1461



Ra-226 Calibration 2017

Purple 16

Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/16/2017 10:40	25630	1708.6667	2/13/2017 13:30	2.2207	0.4487	1714.7097	7534.6	0.2276
R3	0.0146	15.00	2/16/2017 22:07	41979	2798.6000	2/13/2017 13:30	2.3683	0.6933	1704.5564	7534.6	0.2262
R4	0.0204	15.00	2/16/2017 21:37	42985	2865.6667	2/13/2017 13:30	2.3621	0.7265	1669.8994	7534.6	0.2216
R5	0.0302	15.00	2/16/2017 21:20	49517	3301.1333	2/13/2017 13:30	2.3586	0.8604	1626.6944	7534.6	0.2159
R6	0.0493	15.00	2/16/2017 13:01	41139	2742.6000	2/13/2017 13:30	2.2520	0.9364	1300.6120	7534.6	0.1726
R7	0.0651	15.00	2/16/2017 12:12	38847	2589.8000	2/13/2017 13:30	2.2412	0.9274	1246.0556	7534.6	0.1654
R8	0.0990	15.00	2/16/2017 11:53	34189	2279.2667	2/13/2017 13:30	2.2370	0.9402	1083.7499	7534.6	0.1438



ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
0	97.69%	98.94%	99.54%	98.72%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Count Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
0	102.60%	99.97%	104.13%	102.24%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
0	5.149	5.017	5.226

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Purple Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
0	97.22%	100.50%	100.16%	99.29%

Beta Activity 2007.869 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Count Date:	2/4/2013		(or date at which you wish to determine activity)
Elapsed Time:	67.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.995548598		
Corrected Activity:	2228.734647	dpm	
Decay Activity (Sr/Y-90)	4457.469295	dpm	2007.869 pCi

ICV is for Gross Alpha

Purple Alpha ICV 2016				
	Low Mass	Medium Mass	High Mass	Mean
Detector	Recovery	Recovery	Recovery	Recovery
0	96.20%	96.68%	95.70%	102.24%

Standard ID

Thorium-230
Th-230_00019
Container#: 181198
Ref. date 08/08/2013
Activity: 5.0185 pCi/mL

Prep Batch: M163021
Date counted: 1/17/16

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
0	5.22E+00	5.19E+00	5.24E+00

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Purple Beta ICV 2013						
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery	Beta Activity	2007.869 pCi
2	97.32%	98.16%	98.56%	98.01%		

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	2/4/2013		(or date at which you wish to determine activity)
Elapsed Time:	67.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.995548598		
Corrected Activity:	2228.734647	dpm	
Decay Activity (Sr/Y-90)	4457.469295	dpm	2007.869 pCi

ICV is for Gross Alpha

Purple Alpha ICV 2016				
	Low Mass	Medium Mass	High Mass	Mean
Detector	Recovery	Recovery	Recovery	Recovery
2	95.45%	98.17%	100.35%	102.24%

Standard ID

Thorium-230
Th-230_00019
Container#: 181198
Ref. date 08/08/2013
Activity: 5.0185 pCi/mL

Prep Batch: M163021
Date counted: 1/17/16

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
2	5.26E+00	5.11E+00	5.00E+00

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analysis Report for Total Alpha-Emitting Radium

Batch: 291970 **Operator:**

SampID / Analyte	WRKNO	Ts	Aliquot Tb	Cs	Ba Mass Cb	Ba Yield CPMs	Trunc Yield CPMb	Ingrowth	Activity	Ba Precip Time	InstrID	Eff	Cal Type	Cnt Date Time	Sigma
									UncCount		UncTotal	MDA	DLC	MQO	
ICVRa6-1063071;1-A	160-21018-A-1-A		1.0000mL		0.0133	63.15%	False	3.3327	2/13/17 13:30		Purple6	0.2230	2	2/21/17 20:28	1.00
Total Alpha Emitting		5.00	1000.00	17133	108	3426.60	0.11	**3.289E+003**pCi/mL	2.513E+001		1.501E+002	1.041E+000	2.326E-001	150.1156	
ICVRa6-1063071;2-A	160-21018-A-2-A		1.0000mL		0.0276	78.63%	False	3.3318	2/13/17 13:30		Purple6	0.2033	2	2/21/17 20:17	1.00
Total Alpha Emitting		5.00	1000.00	21144	108	4228.80	0.11	**3.576E+003**pCi/mL	2.459E+001		1.628E+002	9.173E-001	2.050E-001	162.7912	
ICVRa6-1063071;3-A	160-21018-A-3-A		1.0000mL		0.0487	92.50%	False	3.3263	2/13/17 13:30		Purple6	0.1788	2	2/21/17 19:12	1.00
Total Alpha Emitting		5.00	1000.00	20652	108	4130.40	0.11	**3.382E+003**pCi/mL	2.353E+001		1.540E+002	8.882E-001	1.985E-001	154.0013	

Laboratory Control Sample Information

SampID	WRKNO	Analyte	Activity	StdAdded	Recovery %	LCL	UCL	ZFactor

Sample Duplicate Information

SampID	SampDupID	Analyte	Activity	DupActivity	RPD	RER	DER	ZFactor

Matrix Spike Information

SampID	SampMSID	WRKNO	Analyte	Activity	MSActivity	StdAdded	Recovery	ZFactor

Blanks Information

SampID	WRKNO	Analyte	Activity	UncTotal

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
6	86.82%	94.40%	89.28%	90.17%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
6	Low Mass (0.0133g)	3.289E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.576E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.382E+03	pCi/mL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analysis Report for Total Alpha-Emitting Radium

Batch: 291970 **Operator:**

SampID / Analyte	WRKNO	Ts	Aliquot Tb	Cs	Ba Mass Cb	Ba Yield CPMs	Trunc Yield CPMb	Ingrowth	Ba Precip Time	InstrID	Eff	Cal Type	Cnt Date Time	Sigma
								Activity	UncCount	UncTotal	MDA	DLC	MQO	
ICVRa6-1063071;1-A	160-21018-A-1-A		1.0000mL		0.0133	63.15%	False	3.3347	2/13/17 13:30	Purple7	0.2185	2	2/21/17 20:51	1.00
Total Alpha Emitting		5.00	1000.00	16752	123	3350.40	0.12	3.279E+003pCi/mL	2.534E+001	1.497E+002	1.094E+000	2.532E-001	149.7268	
ICVRa6-1063071;2-A	160-21018-A-2-A		1.0000mL		0.0276	78.63%	False	3.3328	2/13/17 13:30	Purple7	0.1999	2	2/21/17 20:28	1.00
Total Alpha Emitting		5.00	1000.00	21237	123	4247.40	0.12	3.653E+003pCi/mL	2.507E+001	1.663E+002	9.610E-001	2.225E-001	166.2858	
ICVRa6-1063071;3-A	160-21018-A-3-A		1.0000mL		0.0487	92.50%	False	3.3318	2/13/17 13:30	Purple7	0.1761	2	2/21/17 20:17	1.00
Total Alpha Emitting		5.00	1000.00	20010	123	4002.00	0.12	3.321E+003pCi/mL	2.348E+001	1.513E+002	9.272E-001	2.146E-001	151.2765	

Laboratory Control Sample Information

SampID	WRKNO	Analyte	Activity	StdAdded	Recovery %	LCL	UCL	ZFactor

Sample Duplicate Information

SampID	SampDupID	Analyte	Activity	DupActivity	RPD	RER	DER	ZFactor

Matrix Spike Information

SampID	SampMSID	WRKNO	Analyte	Activity	MSActivity	StdAdded	Recovery	ZFactor

Blanks Information

SampID	WRKNO	Analyte	Activity	UncTotal

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
7	86.56%	96.43%	87.67%	90.22%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
7	Low Mass (0.0133g)	3.279E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.653E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.321E+03	pCi/mL

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Analysis Report for Total Alpha-Emitting Radium

Batch: 291970 **Operator:**

SampID / Analyte	WRKNO	Ts	Aliquot Tb	Cs	Ba Mass Cb	Ba Yield CPMs	Trunc Yield CPMb	Ingrowth	Ba Precip Time	InstrID	Eff	Cal Type	Cnt Date Time	Sigma
								Activity	UncCount	UncTotal	MDA	DLC	MQO	
160-21018-A-1-A	160-21018-A-1-A		1.0000mL		0.0133	63.15%	False	2.4229	2/13/17 13:30	Purple15	0.2230	2	2/17/17 2:35	1.00
Total Alpha Emitting		5.00	1000.00	12677	81	2535.40	0.08	**3.347E+003**pCi/mL	2.972E+001	1.535E+002	1.346E+000	2.771E-001	153.5014	
160-21018-A-2-A	160-21018-A-2-A		1.0000mL		0.0276	78.63%	False	2.4216	2/13/17 13:30	Purple15	0.2048	2	2/17/17 2:29	1.00
Total Alpha Emitting		5.00	1000.00	15880	81	3176.00	0.08	**3.668E+003**pCi/mL	2.911E+001	1.676E+002	1.178E+000	2.424E-001	167.6129	
160-21018-A-3-A	160-21018-A-3-A		1.0000mL		0.0487	92.50%	False	2.4194	2/13/17 13:30	Purple15	0.1817	2	2/17/17 2:17	1.00
Total Alpha Emitting		5.00	1000.00	15461	81	3092.20	0.08	**3.426E+003**pCi/mL	2.756E+001	1.566E+002	1.130E+000	2.326E-001	156.6286	

Laboratory Control Sample Information

SampID	WRKNO	Analyte	Activity	StdAdded	Recovery %	LCL	UCL	ZFactor

Sample Duplicate Information

SampID	SampDupID	Analyte	Activity	DupActivity	RPD	RER	DER	ZFactor

Matrix Spike Information

SampID	SampMSID	WRKNO	Analyte	Activity	MSActivity	StdAdded	Recovery	ZFactor

Blanks Information

SampID	WRKNO	Analyte	Activity	UncTotal

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
15	89.33%	96.19%	89.25%	91.59%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
15	Low Mass (0.0133g)	3.384E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.644E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.381E+03	pCi/mL

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Analysis Report for Total Alpha-Emitting Radium

Batch: 291970 **Operator:**

SampID	WRKNO		Aliquot		Ba Mass	Ba Yield	Trunc Yield	Ingrowth	Ba Precip Time	InstrID	Eff	Cal Type	Cnt Date Time	Sigma
Analyte		Ts	Tb	Cs	Cb	CPMs	CPMb	Activity	UncCount	UncTotal	MDA	DLC	MQO	
160-21018-A-1-A	160-21018-A-1-A		1.0000mL		0.0133	63.15%	False	2.3814	2/13/17 13:30	Purple16	0.2261	2	2/16/17 23:09	1.00
Total Alpha Emitting		5.00	1000.00	12858	117	2571.60	0.12	3.407E+003pCi/mL	3.004E+001	1.562E+002	1.463E+000	3.342E-001	156.2110	
160-21018-A-2-A	160-21018-A-2-A		1.0000mL		0.0276	78.63%	False	2.3955	2/13/17 13:30	Purple16	0.2075	2	2/17/17 0:18	1.00
Total Alpha Emitting		5.00	1000.00	15731	117	3146.20	0.12	3.625E+003pCi/mL	2.891E+001	1.657E+002	1.273E+000	2.907E-001	165.6769	
160-21018-A-3-A	160-21018-A-3-A		1.0000mL		0.0487	92.50%	False	2.3936	2/13/17 13:30	Purple16	0.1834	2	2/17/17 0:09	1.00
Total Alpha Emitting		5.00	1000.00	15393	117	3078.60	0.12	3.415E+003pCi/mL	2.752E+001	1.561E+002	1.225E+000	2.798E-001	156.1046	

Laboratory Control Sample Information

SampID	WRKNO	Analyte	Activity	StdAdded	Recovery %	LCL	UCL	ZFactor

Sample Duplicate Information

SampID	SampDupID	Analyte	Activity	DupActivity	RPD	RER	DER	ZFactor

Matrix Spike Information

SampID	SampMSID	WRKNO	Analyte	Activity	MSActivity	StdAdded	Recovery	ZFactor

Blanks Information

SampID	WRKNO	Analyte	Activity	UncTotal

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
16	89.33%	96.19%	89.25%	91.59%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
16	Low Mass (0.0133g)	3.384E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.644E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.381E+03	pCi/mL

TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **AUGUST 20, 2018**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / HAAS/ SVOC / GRO / DRO/ SELECT TOTAL AND DISSOLVED METALS/ DISSOLVED ORGANIC CARBON / PERCHLORATE / RADIUM-228 / TOTAL ALPHA RADIUM**
MSA – GROUNDWATER MONITORING – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-97405-1

SAMPLES:

16/ Aqueous/
VOC, SVOC, Select Total and Dissolved Metals

DMW-3D-062118	DMW-3I-062118	DMW-3S-062118
DMW-6D-062018	DMW-6I-062018	DMW-6S-062018
MSA-MW-14D-062218	MSA-MW-14I-062218	MSA-MW-30D-062018
MSA-MW-31D-062218	MSA-MW-50D-062618	MSA-MW-50I-062618
MSA-MW-50S-062618	MSA-MW-52D-062618	MSA-MW-52I-062618
MSA-MW-52S-062618		

1/Aqueous/
HAAS
DMW-3S-062118

9/Aqueous/
Perchlorate

DMW-6D-062018	MSA-MW-30D-062018	MSA-MW-31D-062218
MSA-MW-50D-062618	MSA-MW-50I-062618	MSA-MW-50S-062618
MSA-MW-52D-062618	MSA-MW-52I-062618	MSA-MW-52S-062618

4/Aqueous/
GRO, DRO

DMW-3S-062118	DMW-6S-062018	MSA-MW-50S-062618
MSA-MW-52S-062618		

4/Aqueous/
Dissolved Organic Carbon

DMW-11S-062218	DMW-9D-062218	DMW-9I-062218
DMW-9S-062218		

5/Aqueous/
Radium-228, Total Alpha Radium

DMW-3D-062118	DMW-3I-062118	DMW-6D-062018
DMW-6I-062018	DMW-6S-062018	

4/Trip Blanks/
VOC

TB-062018	TB-062118	TB-062218
TB-062618		

OVERVIEW

The sample set for MSA Groundwater Monitoring, SDG 240-97405-1, consists of twenty (20) aqueous environmental samples and four (4) trip blanks. Samples were analyzed for volatile organic compounds (VOCs), haloacetic acids (HAAS), semivolatile organic compounds (SVOCs) including 1,4-dioxane, gas range organics (C6-C10), diesel range organics (C10-C32), select total and dissolved metals, dissolved organic carbon, perchlorate, Radium-228 and total alpha radium as referenced above. The trip blanks were analyzed for VOCs. Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on June 20, 21, 22 and 26, 2018, and analyzed by Test America. Analyses were conducted in accordance to SW-846 Methods 8260C, 8270D, 8015C, 6020A, 6010C, 7470A and 9060A, EPA Methods 552.2, 6850, 903.0 and 904.0 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip/instrument blank results, ICP interference recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate results, internal standard recoveries, carrier recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC initial calibration verification performed on 06/21/18 @ 22:19 on instrument A3UX19 had a percent difference (%D) that were greater than the 20% quality control limit for dichlorodifluoromethane. All samples were affected. The non-detected results reported for dichlorodifluoromethane in the affected samples were qualified as estimated (UJ).

- The VOC continuing calibration verification performed on 06/28/18 @ 9:46 and 10:09 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for ethyl tert-butyl ether, tert-amyl methyl ether, 2-chloroethyl vinyl ether and cis-1,3-dichloropropene. Samples TB-062118, DMW-3I-062118, DMW-3D-062118, DMW-3S-062118, TB-062218, MSA-MW-14D-062218, MSA-MW-14I-062218 and MSA-MW-31D-062218 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ), unless rejected for a more severe noncompliance.

- The VOC continuing calibration verification performed on 07/02/18 @ 15:42 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for 2-chloroethyl vinyl ether, cis-1,3-dichloropropene and 4-methyl-2-pentanone. Samples TB-062618, MSA-MW-50D-062618, MSA-MW-50I-062618, MSA-MW-50S-062618 and MSA-MW-52S-062618 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ), unless rejected for a more severe noncompliance.

- The VOC continuing calibration verification performed on 07/03/18 @ 15:36 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for acetone, tert-butyl alcohol, 2-chloroethyl

vinyl ether, cis-1,3-dichloropropene, 4-methyl-2-pentanone, trans-1,3-dichloropropene and 2-hexanone. Samples MSA-MW-52S-062618, MSA-MW-52I-062618 and MSA-MW-52D-062618 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ), unless rejected for a more severe noncompliance or qualified for blank contamination.

- The following VOC compounds were detected in the method/trip blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Tetrahydrofuran (TIC)[1]	1.22 ug/L	< RL
Tetrahydrofuran (TIC)[2]	3.24 ug/L	< RL
Tetrahydrofuran (TIC)[3]	3.30 ug/L	< RL
2-Butanone[4]	1.2 ug/L	< RL
Chloroform[4]	0.26 ug/L	< RL
Tert-butyl alcohol[4]	3.7 ug/L	< RL
Chloroform[5]	0.25 ug/L	< RL
Tert-butyl alcohol[6]	15 ug/L	< RL
Trimethyl silanol (TIC)[6]	2.3 ug/L	
2-Butanone[7]	7 ug/L	< RL
2-Hexanone[7]	0.79 ug/L	< RL
Acetone[7]	24 ug/L	> RL
Hexane (TIC) [7]	2.4 ug/L	< RL
Tert-butyl alcohol[7]	31 ug/L	< RL
Trimethyl silanol (TIC)[7]	9.1 ug/L	

[1] Maximum concentration detected in a method blank, preparation batch 240-333371, affecting samples TB-062018, DMW-6I-062018 and DMW-6D-062018.
[2] Maximum concentration detected in a method blank, preparation batch 240-333562, affecting samples DMW-6S-062018 and MSA-MW-30D-062018.
[3] Maximum concentration detected in a method blank, preparation batch 240-333899, affecting samples DMW-3D-062118, DMW-3I-062118, DMW-3S-062118, MSA-MW-14D-062218, MSA-MW-14I-062218, MSA-MW-31D-062218, TB-062118 and TB-062218.
[4] Maximum concentration present in trip blank, TB-062018, affecting samples DMW-6I-062018, DMW-6D-062018, DMW-6S-062018 and MSA-MW-30D-062018.
[5] Maximum concentration present in trip blank, TB-062118, affecting samples DMW-3I-062118, DMW-3D-062118 and DMW-3S-062118.
[6] Maximum concentration present in trip blank, TB-062218, affecting samples MSA-MW-14D-062218, MSA-MW-14I-062218, DMW-9I-062218, DMW-9D-062218, DMW-9S-062218, DMW-11S-062218 and MSA-MW-31D-062218.
[7] Maximum concentration present in trip blank, TB-062618, affecting samples MSA-MW-50D-062618, MSA-MW-50I-062618, MSDA-MW-50S-062618, MSA-MW-52S-062618, MSA-MW-52I-062618 and MSA-MW-52D-062618.

The detected results reported below the reporting limit (RL) for tert-butyl alcohol were qualified as non-detected, (U). Trip blanks are not qualified for blank contamination.

- The following TICs were detected. The GC/MS instrument was not calibrated for these TICs; therefore, the detected compounds were qualified as estimated (NJ) or rejected (R) and assumed to be presumptively present.

Sample	TIC
TB-062218	trimethyl-silanol
MSA-MW-14D-062218	unknown

MSA-MW-31D-062218	trimethyl-silanol
TB-062618	hexane
	trimethyl-silanol
MSA-MW-50D-062618	trimethyl-silanol
MSA-MW-52S-062618	trimethyl-silanol

- The VOC laboratory control sample (LCS) percent recovery (%R) for tert-butyl alcohol was above the quality control limit for preparation batch 240-334645. Samples MSA-MW-52S-062618, MSA-MW-52I-062618 and MSA-MW-52D-062618 were affected. The detected result reported for tert-butyl alcohol in the affected sample was qualified as estimated (J), as a result of conflicting noncompliances.

- The metals matrix spike duplicate (MSD) %R for total manganese was above the quality control limit for sample MSA-MW-50D-062618. The post digestion spike recovery was within quality control limits. All samples were affected. The detected results reported for total manganese were qualified as estimated (J).

- Sample results for Radium-228 and total alpha radium with concentrations found to be less than the minimal detectable concentrations (MDC) were qualified nondetected (U) by the laboratory.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

The laboratory reported samples as DMW-6I-0620118, DMW-6D-0620118, DMW-6S-0620118 and MSA-MW-30D-0620118. The samples are listed on the chain of custody as DMW-6I-062018, DMW-6D-062018, DMW-6S-062018 and MSA-MW-30D-062018. The validator amended the Form Is and electronic deliverable to match the chain of custody.

Nondetects were reported to the MDL.

The uncertainty for the sample results for Radium-228 and total alpha radium are reported at 2-sigma (95% confidence). The electronic deliverable does not contain the uncertainty result.

The following samples were analyzed at dilutions. Detection limits of the non-detected results were elevated.

Sample	Analysis	Dilution
DMW-3I-062118	VOC	66.67 X
	1,4-dioxane	5 X
DMW-3S-062118	VOC	50 X
	1,4-dioxane	20 X
MSA-MW-14I-062218	VOC	33.33 X
MSA-MW-50S-062618	VOC	4X
MSA-MW-52S-062618	VOC (tert-butyl alcohol)	5 X
	1,4-dioxane	4 X
MSA-MW-52I-062618	VOC	500 X
	1,4-dioxane	20 X
MSA-MW-52D-062618	VOC	500 X
	1,4-dioxane	10 X

A TIC search was performed for the compound chlorodifluoromethane.

The VOC matrix spike / matrix spike duplicate (MS/MSD) %Rs for 2-chloroethyl vinyl ether were 0% for sample MSA-MW-50D-062618. No validation actions were required as the sample result was rejected due to sample preservation.

The VOC MSD %R for tert-butyl alcohol was above the quality control limit for sample MSA-MW-50D-062618. No validation actions were required as the sample result was nondetected.

It was noted that the VOC LCS was not analyzed for the following compounds: 1,2,3-trimethylbenzene, 1,2-dibromoethane, diisopropyl ether, ethyl tert-butyl ether and tert-amyl methyl ether. LCS recoveries could not be evaluated.

The following contaminant was detected in a laboratory instrument blank at the following maximum concentration:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Beryllium[(1)]	0.454 ug/L	< RL

[(1)] Maximum concentration present in an instrument blank affecting total and dissolved samples MSA-MW-50D-062618, MSA-MW-50I-062618, MSA-MW-50S-062618, MSA-MW-52S-062618 and MSA-MW-52D-062618 and total sample MSA-MW-52I-062618.

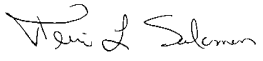
No validation actions were required as all sample results were either greater than the reporting limit or were nondetected.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several initial calibration and continuing calibration %Ds were noncompliant for the VOC fraction. Contaminants were detected in the laboratory method/instrument blanks. One LCS percent recovery was outside the quality control limits for the VOC fraction. One MSD %R was outside the quality control limits for the metals analyses.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Several TICs were detected in the VOC fraction. Detected results reported below the RL but above the MDL were qualified as estimated. Sample results for Radium-228 and total alpha radium below the MDC were qualified as nondetected.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.



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Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: OV	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		9.3	U		7	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		16	U		12	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		8.7	U		6.5	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		27	U		21	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		11	U		8.5	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		13	U		9.5	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		9.3	U		7	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		36	U		27	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		16	U		12	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		9.3	U		7	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		200			13	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		4.7	U		3.5	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		61	U		46	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		8	U		6	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		10	U		7.5	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		18	J	P	11	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		10	U		7.5	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		10	U		7.5	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		14	U		11	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		11	U		8	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		21	U		16	U		0.31	U	
2-BUTANONE		1.2	U		140	J	P	70	J	P	1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	17	UR	M	13	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		10	U		7.5	U		0.15	U	
2-HEXANONE		0.54	U		36	U		27	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		6	U		4.5	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		8.7	U		6.5	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		28	U		21	U		0.42	U	
ACETONE		5.4	U		360	U		270	U		5.4	U	
BENZENE		0.13	U		8.7	U		6.5	U		0.13	U	
BROMOBENZENE		0.12	U		8	U		6	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		9.3	U		7	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		11	U		8.5	U		0.17	U	
BROMOFORM		0.76	U		51	U		38	U		0.76	U	
BROMOMETHANE		0.42	U		28	U		21	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		4.7	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		8	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		4.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		14	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		5.7	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		6.3	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		4.7	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		18	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		8	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		4.7	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		8.7	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		2.3	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		30	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		4	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		5	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		7	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		5	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		5	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		7	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		5.3	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		10	U	
2-BUTANONE		1.2	U		1.2	U		1.5	J	P	39	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	8.7	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		5	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		18	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		3	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		4.3	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		14	U	
ACETONE		5.4	U		5.4	U		8.9	J	P	180	U	
BENZENE		0.13	U		0.13	U		0.13	U		6.3	J	P
BROMOBENZENE		0.12	U		0.12	U		0.12	U		4	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		4.7	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		5.7	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		25	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		14	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.27	J	P
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.37	J	P	0.51	J	P
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	UJ	C	0.42	UJ	C
ACETONE		5.4	U		5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		0.19	J	P
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: OV	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.56	U		70	U		70	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.96	U		120	U		120	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.52	U		65	U		65	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.6	U		210	U		210	U		0.41	U	
1,1-DICHLOROETHANE		0.68	U		85	U		85	U		0.17	U	
1,1-DICHLOROETHENE		0.76	U		95	U		95	U		0.19	U	
1,1-DICHLOROPROPENE		0.56	U		70	U		70	U		0.14	U	
1,2,3-TRICHLOROBENZENE		2.2	U		270	U		270	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.96	U		120	U		120	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.56	U		70	U		70	U		1.1	J	P
1,2,4-TRICHLOROBENZENE		1	U		130	U		330	J	P	0.26	U	
1,2,4-TRIMETHYLBENZENE		0.28	U		35	U		35	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		3.6	U		460	U		460	U		0.91	U	
1,2-DIBROMOETHANE		0.48	U		60	U		60	U		0.12	U	
1,2-DICHLOROBENZENE		0.6	U		75	U		75	U		0.15	U	
1,2-DICHLOROETHANE		1.9	J	P	200	J	P	190	J	P	1.2		
1,2-DICHLOROPROPANE		0.6	U		75	U		75	U		0.15	U	
1,3-DICHLOROBENZENE		0.6	U		75	U		75	U		0.15	U	
1,3-DICHLOROPROPANE		0.84	U		110	U		110	U		0.21	U	
1,4-DICHLOROBENZENE		0.64	U		80	U		80	U		0.16	U	
2,2-DICHLOROPROPANE		1.2	U		160	U		160	U		0.31	U	
2-BUTANONE		4.6	U		580	U		580	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		1	UR	M	130	UR	M	130	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.6	U		75	U		75	U		0.15	U	
2-HEXANONE		2.2	U		270	UJ	C	270	UJ	C	0.54	U	
4-CHLOROTOLUENE		0.36	U		45	U		45	U		0.09	U	
4-ISOPROPYLTOLUENE		0.52	U		65	U		65	U		0.13	U	
4-METHYL-2-PENTANONE		1.7	UJ	C	210	UJ	C	210	UJ	C	0.42	UJ	C
ACETONE		22	U		2700	UJ	C	2700	UJ	C	5.4	U	
BENZENE		0.52	U		65	U		65	U		1.9		
BROMOBENZENE		0.48	U		60	U		60	U		0.12	U	
BROMOCHLOROMETHANE		0.56	U		70	U		70	U		0.14	U	
BROMODICHLOROMETHANE		0.68	U		85	U		85	U		0.17	U	
BROMOFORM		3	U		380	U		380	U		0.76	U	
BROMOMETHANE		1.7	U		210	U		210	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	TB-062018			TB-062118			TB-062218			TB-062618		
SDG: 240-97405-1	LAB_ID	240-97405-1			240-97513-1			240-97593-1			240-97762-1		
FRACTION: OV	SAMP_DATE	6/20/2018			6/21/2018			6/22/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	J	P	1.2	U		1.2	U		7	J	P
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.79	J	P
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	UJ	C
ACETONE		5.4	U		5.4	U		5.4	U		24		
BENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: OV	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		19	U		14	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		17	U		13	U		0.26	U	
CHLOROBENZENE		0.14	U		9.3	U		7	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		26	U		20	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	67	UJ	Q	50	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		55	U		42	U		0.83	U	
CHLOROFORM		0.13	U		8.7	U		6.5	U		0.13	U	
CHLOROMETHANE		0.2	U		13	U		10	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		1500			830			0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	41	UJ	C	31	UJ	C	0.61	U	
DIBROMOMETHANE		0.09	U		6	U		4.5	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	23	UJ	C	18	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		11	U		8.5	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	UJ	C	10	UJ	C	7.5	UJ	C	0.15	U	
ETHYLBENZENE		0.11	U		7.3	U		6.4	J	P	0.11	U	
HEXACHLOROBUTADIENE		0.83	U		55	U		42	U		0.83	U	
ISOPROPYLBENZENE		0.09	U		6	U		4.5	U		0.09	U	
M+P-XYLENES		0.08	U		5.3	U		4	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		4.7	U		3.5	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		170	U		130	U		2.6	U	
NAPHTHALENE		0.32	U		21	U		16	U		0.32	U	
N-BUTYLBENZENE		0.14	U		9.3	U		7	U		0.14	U	
N-PROPYLBENZENE		0.15	U		10	U		7.5	U		0.15	U	
O-XYLENE		0.09	U		6	U		4.5	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		8.7	U		6.5	U		0.13	U	
STYRENE		0.1	U		6.7	U		5	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	UJ	C	7.3	UJ	C	5.5	UJ	C	0.11	U	
TERT-BUTYLBENZENE		0.14	U		9.3	U		7	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		110	U		85	U		1.7	U	
TETRACHLOROETHENE		0.15	U		10	U		7.5	U		0.15	U	
TOLUENE		0.14	U		9.3	U		19	J	P	0.14	U	
TOTAL XYLENES		0.15	U		10	U		7.5	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		13	U		240			0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		45	U		34	U		0.67	U	
TRICHLOROETHENE		0.24	J	P	2500			5	U		0.1	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		9.3	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		8.7	U	
CHLOROBENZENE		0.14	U		0.23	J	P	0.14	U		67		
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		13	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	33	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		28	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		4.3	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		6.7	U	
CIS-1,2-DICHLOROETHENE		0.16	U		5			0.16	U		260		
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	UJ	C	20	UJ	C
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		3	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	12	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		5.7	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	UJ	C	5	UJ	C
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		3.7	U	
HEXACHLOROBUTADIENE		0.83	U		0.83	U		0.83	U		28	U	
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		3	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		2.7	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		2.3	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		87	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		11	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		4.7	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		5	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		3	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		4.3	U	
STYRENE		0.1	U		0.1	U		0.1	U		3.3	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	UJ	C	3.7	UJ	C
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		4.7	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		2.8	U	B	1.7	U		56	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		5	U	
TOLUENE		0.14	U		0.14	U		0.14	U		4.7	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		5	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.43	J	P	0.19	U		6.3	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		22	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		3.3	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.28	J	P	0.39	J	P
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		16			51		
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	UJ	C	0.61	UJ	C	0.61	UJ	C
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	UJ	C	0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	U		0.83	U		0.83	U		0.83	U	
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	UJ	C	0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.34	J	P
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.54	J	P	0.79	J	P
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		29			62		

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: OV	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		1.1	U		140	U		140	U		0.28	U	
CARBON TETRACHLORIDE		1	U		130	U		130	U		0.26	U	
CHLOROBENZENE		1.8	J	P	200	J	P	150	J	P	1.1		
CHLORODIBROMOMETHANE		1.6	U		200	U		200	U		0.39	U	
CHLORODIFLUOROMETHANE		4	UJ	Q	500	UJ	Q	500	UJ	Q	1	UJ	Q
CHLOROETHANE		3.3	U		420	U		420	U		0.83	U	
CHLOROFORM		0.52	U		89	J	P	75	J	P	0.13	U	
CHLOROMETHANE		0.8	U		100	U		100	U		0.2	U	
CIS-1,2-DICHLOROETHENE		80			3900			7400			24		
CIS-1,3-DICHLOROPROPENE		2.4	UJ	C	310	UJ	C	310	UJ	C	0.61	UJ	C
DIBROMOMETHANE		0.36	U		45	U		45	U		0.09	U	
DICHLORODIFLUOROMETHANE		1.4	UJ	C	180	UJ	C	180	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.68	U		85	U		85	U		0.18	J	P
ETHYL TERT-BUTYL ETHER		0.6	U		75	U		75	U		0.15	U	
ETHYLBENZENE		0.44	U		55	U		55	U		1.8		
HEXACHLOROBUTADIENE		3.3	U		420	U		420	U		0.83	U	
ISOPROPYLBENZENE		0.36	U		45	U		45	U		0.33	J	P
M+P-XYLENES		0.32	U		40	U		40	U		0.71	J	P
METHYL TERT-BUTYL ETHER		0.28	U		35	U		35	U		0.07	U	
METHYLENE CHLORIDE		10	U		1300	U		1300	U		2.6	U	
NAPHTHALENE		1.3	U		160	U		160	U		0.32	U	
N-BUTYLBENZENE		0.56	U		70	U		70	U		0.14	U	
N-PROPYLBENZENE		0.6	U		75	U		75	U		0.15	U	
O-XYLENE		0.36	U		45	U		45	U		0.36	J	P
SEC-BUTYLBENZENE		0.52	U		65	U		65	U		0.13	U	
STYRENE		0.4	U		50	U		50	U		0.1	U	
TERT-AMYL METHYL ETHER		0.44	U		55	U		55	U		0.11	U	
TERT-BUTYLBENZENE		0.56	U		70	U		70	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		6.8	U		850	UJ	C	1100	U	B	2100	J	CE
TETRACHLOROETHENE		0.73	J	P	75	U		75	U		0.15	U	
TOLUENE		0.56	U		70	U		70	U		0.36	J	P
TOTAL XYLENES		0.6	U		75	U		75	U		1.1	J	P
TRANS-1,2-DICHLOROETHENE		2.8	J	P	95	U		95	U		4		
TRANS-1,3-DICHLOROPROPENE		2.7	U		340	UJ	C	340	UJ	C	0.67	U	
TRICHLOROETHENE		160			17000			20000			0.81	J	P

PROJ_NO: 08424	NSAMPLE	TB-062018			TB-062118			TB-062218			TB-062618		
SDG: 240-97405-1	LAB_ID	240-97405-1			240-97513-1			240-97593-1			240-97762-1		
FRACTION: OV	SAMP_DATE	6/20/2018			6/21/2018			6/22/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.26	J	P	0.25	J	P	0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	UJ	C	0.61	UJ	C	0.61	UJ	C
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	0.35	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	UJ	C	0.15	UJ	C	0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	U		0.83	U		0.83	U		0.83	U	
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	UJ	C	0.11	UJ	C	0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		3.7	J	P	1.7	U		15	J	P	31	J	P
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.1	U		0.1	U	

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: OV	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		30	U		23	U		0.45	U	
VINYL ACETATE		0.19	U		13	U		9.5	U		0.19	U	
VINYL CHLORIDE		0.2	U		520			1300			0.2	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		15	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		6.3	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		740		

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: OV	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		3.2			5.4		

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: OV	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		1.8	U		230	U		230	U		0.45	U	
VINYL ACETATE		0.76	U		95	U		95	U		0.19	U	
VINYL CHLORIDE		18			1900			2700			49		

PROJ_NO: 08424	NSAMPLE	TB-062018			TB-062118			TB-062218			TB-062618		
SDG: 240-97405-1	LAB_ID	240-97405-1			240-97513-1			240-97593-1			240-97762-1		
FRACTION: OV	SAMP_DATE	6/20/2018			6/21/2018			6/22/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		0.19	U		0.19	U		0.19	U	
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-14D-062218			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97593-2			240-97593-8			240-97762-2			240-97762-5		
FRACTION: TICOV	SAMP_DATE	6/22/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXANE													
SILANOL, TRIMETHYL-					2.4	R	Z2	3.2	R	Z2	3	R	Z2
UNKNOWN		2	NJ	Z1									

PROJ_NO: 08424	NSAMPLE	TB-062218			TB-062618		
SDG: 240-97405-1	LAB_ID	240-97593-1			240-97762-1		
FRACTION: TICOV	SAMP_DATE	6/22/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	TB			TB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXANE					2.4	NJ	Z1
SILANOL, TRIMETHYL-		2.3	R	Z2	9.1	R	Z2
UNKNOWN							

PROJ_NO: 08424	NSAMPLE	DMW-3S-062118		
SDG: 240-97405-1	LAB_ID	240-97513-4		
FRACTION: OVGC	SAMP_DATE	6/21/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
BROMOACETIC ACID		0.75	U	
CHLOROACETIC ACID		0.4	U	
DIBROMOACETIC ACID		0.38	U	
DICHLOROACETIC ACID		0.98	U	
TRICHLOROACETIC ACID		0.38	U	

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: OS	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		140			220			0.36	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: OS	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		0.34	U		0.36	U		32		

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: OS	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		0.34	U		0.98			1.7		

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: OS	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		3.1			310			390			84		

PROJ_NO: 08424	NSAMPLE	DMW-3S-062118			DMW-6S-062018			MSA-MW-50S-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97513-4			240-97405-4			240-97762-4			240-97762-5		
FRACTION: PET	SAMP_DATE	6/21/2018			6/20/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		660			49	U		200			73	J	P
TPH (C10-C32)		240	J	P	480			340	J	P			

PROJ_NO: 08424	NSAMPLE	MSA-MW-52S-062618-RE		
SDG: 240-97405-1	LAB_ID	240-97762-5		
FRACTION: PET	SAMP_DATE	6/26/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TPH (C06-C10)				
TPH (C10-C32)		5100		

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: M	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.9	J	P	0.57	U		0.57	U		1	J	P
ARSENIC		2.2	J	P	1.5	J	P	4.1	J	P	0.75	U	
BARIUM		21			17			82			44		
BERYLLIUM		0.31	U		0.84	J	P	0.31	U		0.82	J	P
CADMIUM		0.74	J	P	150			0.21	U		0.69	J	P
CHROMIUM		2.6			4.6			4.7			0.98	U	
COBALT		5.8			240			0.9	J	P	35		
COPPER		11			1.8	J	P	4			8.3		
IRON		1100			37000			2300			340		
LEAD		2.3			0.45	U		2.7			0.45	U	
MANGANESE		33	J	D	5700	J	D	160	J	D	920	J	D
MERCURY		0.13	U		0.13	U		0.13	U		2.9		
MOLYBDENUM		6			1.1	U		2.3	J	P	1.1	U	
NICKEL		10			110			3.1			34		
SELENIUM		0.92	J	P	6.1			2	J	P	1.5	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.48	J	P	0.2	U		0.2	U	
VANADIUM		8.7			9.8			6.4			0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: M	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.6	J	P	0.57	U		0.99	J	P	0.57	U	
ARSENIC		0.98	J	P	4.8	J	P	1.6	J	P	21		
BARIUM		16			48			130			15		
BERYLLIUM		3.9			0.31	U		0.31	U		0.31	U	
CADMIUM		4.6			0.21	U		0.21	U		0.21	U	
CHROMIUM		3.2			0.98	U		12			0.98	U	
COBALT		59			5.6			1			8.4		
COPPER		23			1.7	U		27			1.7	U	
IRON		28000			130000			280			65000		
LEAD		1.6			0.45	U		0.49	J	P	0.45	U	
MANGANESE		4600	J	D	1300	J	D	2.8	J	DP	1600	J	D
MERCURY		0.45			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		14			1.1	U	
NICKEL		52			2.5			2.7			3.5		
SELENIUM		1.1	J	P	0.89	U		1.1	J	P	1.6	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.34	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		1.5	J	P	0.82	U		6.2			0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: M	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		0.75	U		11		
BARIUM		6			30			19			18		
BERYLLIUM		0.31	U		0.31	U		2.4			3.6		
CADMIUM		0.21	U		0.21	U		2.5			1.1		
CHROMIUM		0.98	U		2.7			3.3			9.7		
COBALT		3.5			0.69	J	P	100			170		
COPPER		1.7	U		1.7	U		42			1.7	U	
IRON		78	J	P	3300			17000			25000		
LEAD		0.45	U		0.47	J	P	0.59	J	P	0.45	U	
MANGANESE		7.7	J	D	340	J	D	2100	J	D	2700	J	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		4.1			1.5	U		58			52		
SELENIUM		0.89	U		1	J	P	7.3			8.1		
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		1.5	J	P	2.6	J	P	14		

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: M	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		11			0.75	U		22		
BARIUM		14			21			16			300		
BERYLLIUM		3.1			3			2.1			0.31	U	
CADMIUM		8.4			91			410			0.21	U	
CHROMIUM		5.2			13			3.1			2		
COBALT		100			170			320			1.8		
COPPER		19			2.6			16			1.7	U	
IRON		30000			5400			13000			42000		
LEAD		1.9			0.84	J	P	3.2			0.45	U	
MANGANESE		2400	J	D	3800	J	D	6100	J	D	520	J	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.3	J	P
NICKEL		86			73			100			1.5	U	
SELENIUM		12			8			7.7			1.6	J	P
SILVER		0.053	U		0.47	J	P	0.96	J	P	0.96	J	P
THALLIUM		0.2	U		0.2	U		0.27	J	P	0.2	U	
VANADIUM		4.3	J	P	4	J	P	14			2.5	J	P

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-3S-062118			DMW-6D-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97513-4			240-97405-3		
FRACTION: MF	SAMP_DATE	6/21/2018			6/21/2018			6/21/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		1.9	J	P	0.57	U		0.57	U		0.57	U	
ARSENIC		2.1	J	P	2.5	J	P	7			0.75	U	
BARIUM		19			17			85			46		
BERYLLIUM		0.31	U		0.55	J	P	0.31	U		0.82	J	P
CADMIUM		0.66	J	P	140			0.21	U		0.68	J	P
CHROMIUM		0.98	U		4.2			1.9	J	P	0.98	U	
COBALT		5.7			260			0.76	J	P	38		
COPPER		11			2.9			1.7	U		16		
IRON		180			42000			250			420		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MANGANESE		31			5900			140			1000		
MERCURY		0.13	U		0.13	U		0.13	U		2.2		
MOLYBDENUM		6.1			1.1	U		4.1	J	P	1.1	U	
NICKEL		9.6			110			1.5	U		37		
SELENIUM		1.1	J	P	5.1			2	J	P	1.7	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.48	J	P	0.2	U		0.2	U	
VANADIUM		6.8			8.1			2.6	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-6I-062018			DMW-6S-062018			MSA-MW-14D-062218			MSA-MW-14I-062218		
SDG: 240-97405-1	LAB_ID	240-97405-2			240-97405-4			240-97593-2			240-97593-3		
FRACTION: MF	SAMP_DATE	6/20/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		1	J	P	0.57	U	
ARSENIC		0.77	J	P	4.4	J	P	1.8	J	P	22		
BARIUM		15			47			120			16		
BERYLLIUM		3.9			0.31	U		0.31	U		0.31	U	
CADMIUM		3			0.21	U		0.21	U		0.21	U	
CHROMIUM		1.6	J	P	0.98	U		9.3			0.98	U	
COBALT		62			5.5			0.86	J	P	8.8		
COPPER		8.3			1.7	U		22			1.7	U	
IRON		29000			120000			130			67000		
LEAD		0.83	J	P	0.45	U		0.45	U		0.45	U	
MANGANESE		4900			1300			2.1	U		1700		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		13			1.1	U	
NICKEL		54			2.4			2.4			3.6		
SELENIUM		1.1	J	P	0.89	U		1.3	J	P	1.6	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.26	J	P	0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		0.82	U		5.8			0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618			MSA-MW-50I-062618		
SDG: 240-97405-1	LAB_ID	240-97405-5			240-97593-8			240-97762-2			240-97762-3		
FRACTION: MF	SAMP_DATE	6/20/2018			6/22/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		1.3	J	P	12		
BARIUM		5.5			31			21			18		
BERYLLIUM		0.31	U		0.31	U		2.8			3.5		
CADMIUM		0.21	U		0.21	U		2.6			1		
CHROMIUM		0.98	U		2.6			3.5			9.9		
COBALT		3.3			0.4	J	P	100			160		
COPPER		4.8			1.7	U		32			6.7		
IRON		47	U		3200			18000			25000		
LEAD		0.45	U		0.45	U		0.6	J	P	0.45	U	
MANGANESE		6.5			330			2200			2700		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		4.3			1.5	U		58			53		
SELENIUM		0.89	U		1.1	J	P	7.3			8.2		
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.22	J	P	0.2	U	
VANADIUM		0.82	U		1.1	J	P	2.5	J	P	15		

PROJ_NO: 08424	NSAMPLE	MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-4			240-97762-7			240-97762-6			240-97762-5		
FRACTION: MF	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		9.7			0.75	U		17		
BARIUM		14			20			16			290		
BERYLLIUM		3			2.8			2.2			0.31	U	
CADMIUM		8.1			72			240			0.21	U	
CHROMIUM		5.1			12			2.8			1.7	J	P
COBALT		100			160			320			1.8		
COPPER		11			4.6			2.9			1.7	U	
IRON		30000			5300			13000			38000		
LEAD		1.5			0.62	J	P	1.7			0.45	U	
MANGANESE		2400			3700			6000			530		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.3	J	P
NICKEL		84			70			100			1.5	U	
SELENIUM		12			7.7			7.5			1.2	J	P
SILVER		0.053	U		0.053	U		0.14	J	P	0.089	J	P
THALLIUM		0.2	U		0.2	U		0.24	J	P	0.2	U	
VANADIUM		4.3	J	P	3	J	P	9.4			2.2	J	P

PROJ_NO: 08424	NSAMPLE	DMW-11S-062218			DMW-6D-062018			DMW-9D-062218			DMW-9I-062218		
SDG: 240-97405-1	LAB_ID	240-97593-7			240-97405-3			240-97593-5			240-97593-4		
FRACTION: MISC	SAMP_DATE	6/22/2018			6/20/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			UG/L			MG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		9.6						2.4			9.6		
PERCHLORATE					0.13	J	P						

PROJ_NO: 08424	NSAMPLE	DMW-9S-062218			MSA-MW-30D-062018			MSA-MW-31D-062218			MSA-MW-50D-062618		
SDG: 240-97405-1	LAB_ID	240-97593-6			240-97405-5			240-97593-8			240-97762-2		
FRACTION: MISC	SAMP_DATE	6/22/2018			6/20/2018			6/22/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON		21											
PERCHLORATE					0.11	J	P	0.082	U		0.17	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-50I-062618			MSA-MW-50S-062618			MSA-MW-52D-062618			MSA-MW-52I-062618		
SDG: 240-97405-1	LAB_ID	240-97762-3			240-97762-4			240-97762-7			240-97762-6		
FRACTION: MISC	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON													
PERCHLORATE		0.082	U		0.082	U		0.082	U		0.082	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-52S-062618		
SDG: 240-97405-1	LAB_ID	240-97762-5		
FRACTION: MISC	SAMP_DATE	6/26/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DISSOLVED ORGANIC CARBON				
PERCHLORATE		0.082	U	

PROJ_NO: 08424	NSAMPLE	DMW-3D-062118			DMW-3I-062118			DMW-6D-062018			DMW-6I-062018		
SDG: 240-97405-1	LAB_ID	240-97513-3			240-97513-2			240-97405-3			240-97405-2		
FRACTION: RAD	SAMP_DATE	6/21/2018			6/21/2018			6/20/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	PCI/L			PCI/L			PCI/L			PCI/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
RADIUM-228		0.398	U		7.22			6.76			9.34		
TOTAL ALPHA RADIUM		0.241	U		0.379			2.85			3.66		

PROJ_NO: 08424	NSAMPLE	DMW-6S-062018		
SDG: 240-97405-1	LAB_ID	240-97405-4		
FRACTION: RAD	SAMP_DATE	6/20/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	PCI/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
RADIUM-228		1.06		
TOTAL ALPHA RADIUM		0.579		

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062018 | Lab Sample ID: 240-97405-1

Matrix: Water | Lab File ID: U1900143.d

Analysis Method: 8260C | Date Collected: 06/20/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062018 | Lab Sample ID: 240-97405-1

Matrix: Water | Lab File ID: U1900143.d

Analysis Method: 8260C | Date Collected: 06/20/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.26	J	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	3.7	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062018 Lab Sample ID: 240-97405-1

Matrix: Water Lab File ID: U1900143.d

Analysis Method: 8260C Date Collected: 06/20/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/26/2018 02:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333371 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062018 | Lab Sample ID: 240-97405-1

Matrix: Water | Lab File ID: U1900143.d

Analysis Method: 8260C | Date Collected: 06/20/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062018 | Lab Sample ID: 240-97405-1

Matrix: Water | Lab File ID: U1900143.d

Analysis Method: 8260C | Date Collected: 06/20/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~118~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: U1900144.d

Analysis Method: 8260C | Date Collected: 06/20/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~18~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: U1900144.d

Analysis Method: 8260C | Date Collected: 06/20/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~18~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: U1900144.d

Analysis Method: 8260C | Date Collected: 06/20/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~18~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: U1900144.d

Analysis Method: 8260C | Date Collected: 06/20/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~18~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: U1900144.d

Analysis Method: 8260C | Date Collected: 06/20/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: U1900145.d

Analysis Method: 8260C | Date Collected: 06/20/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: U1900145.d

Analysis Method: 8260C | Date Collected: 06/20/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: U1900145.d

Analysis Method: 8260C | Date Collected: 06/20/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: U1900145.d

Analysis Method: 8260C | Date Collected: 06/20/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: U1900145.d

Analysis Method: 8260C | Date Collected: 06/20/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 02:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-062018~~118~~ | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: U1900160.d

Analysis Method: 8260C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.23	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-062018~~18~~ | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: U1900160.d

Analysis Method: 8260C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	5.0		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	2.8	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.43	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-062018~~18~~ | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: U1900160.d

Analysis Method: 8260C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	100		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-0620~~18~~18 | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: U1900160.d

Analysis Method: 8260C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-062018~~18~~ | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: U1900160.d

Analysis Method: 8260C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: U1900161.d

Analysis Method: 8260C | Date Collected: 06/20/2018 14:32

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: U1900161.d

Analysis Method: 8260C | Date Collected: 06/20/2018 14:32

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: U1900161.d

Analysis Method: 8260C | Date Collected: 06/20/2018 14:32

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: U1900161.d

Analysis Method: 8260C | Date Collected: 06/20/2018 14:32

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: U1900161.d

Analysis Method: 8260C | Date Collected: 06/20/2018 14:32

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 19:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062118 | Lab Sample ID: 240-97513-1

Matrix: Water | Lab File ID: U1900262.d

Analysis Method: 8260C | Date Collected: 06/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062118 | Lab Sample ID: 240-97513-1

Matrix: Water | Lab File ID: U1900262.d

Analysis Method: 8260C | Date Collected: 06/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.25	J	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062118 Lab Sample ID: 240-97513-1

Matrix: Water Lab File ID: U1900262.d

Analysis Method: 8260C Date Collected: 06/21/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062118 | Lab Sample ID: 240-97513-1

Matrix: Water | Lab File ID: U1900262.d

Analysis Method: 8260C | Date Collected: 06/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062118 | Lab Sample ID: 240-97513-1

Matrix: Water | Lab File ID: U1900262.d

Analysis Method: 8260C | Date Collected: 06/21/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 | Lab Sample ID: 240-97513-2

Matrix: Water | Lab File ID: U1900263.d

Analysis Method: 8260C | Date Collected: 06/21/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 66.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	9.3	U	67	9.3
71-55-6	1,1,1-Trichloroethane	16	U	67	16
79-34-5	1,1,2,2-Tetrachloroethane	8.7	U	67	8.7
76-13-1	1,1,2-Trichlorotrifluoroethane	27	U	67	27
75-34-3	1,1-Dichloroethane	11	U	67	11
75-35-4	1,1-Dichloroethene	13	U	67	13
563-58-6	1,1-Dichloropropene	9.3	U	67	9.3
87-61-6	1,2,3-Trichlorobenzene	36	U	67	36
96-18-4	1,2,3-Trichloropropane	16	U	67	16
526-73-8	1,2,3-Trimethylbenzene	9.3	U	330	9.3
120-82-1	1,2,4-Trichlorobenzene	200		67	17
95-63-6	1,2,4-Trimethylbenzene	4.7	U	67	4.7
96-12-8	1,2-Dibromo-3-Chloropropane	61	U	130	61
95-50-1	1,2-Dichlorobenzene	10	U	67	10
107-06-2	1,2-Dichloroethane	18	J	67	14
78-87-5	1,2-Dichloropropane	10	U	67	10
541-73-1	1,3-Dichlorobenzene	10	U	67	10
142-28-9	1,3-Dichloropropane	14	U	67	14
106-46-7	1,4-Dichlorobenzene	11	U	67	11
594-20-7	2,2-Dichloropropane	21	U	67	21
78-93-3	2-Butanone (MEK)	140	J	670	77
110-75-8	2-Chloroethyl vinyl ether	17	U	670	17
95-49-8	2-Chlorotoluene	10	U	67	10
591-78-6	2-Hexanone	36	U	670	36
106-43-4	4-Chlorotoluene	6.0	U	67	6.0
99-87-6	4-Isopropyltoluene	8.7	U	67	8.7
108-10-1	4-Methyl-2-pentanone (MIBK)	28	U	670	28
67-64-1	Acetone	360	U	670	360
71-43-2	Benzene	8.7	U	67	8.7
108-86-1	Bromobenzene	8.0	U	67	8.0
75-25-2	Bromoform	51	U	67	51
74-83-9	Bromomethane	28	U	67	28
75-15-0	Carbon disulfide	19	U	67	19
56-23-5	Carbon tetrachloride	17	U	67	17
108-90-7	Chlorobenzene	9.3	U	67	9.3
124-48-1	Chlorodibromomethane	26	U	67	26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 | Lab Sample ID: 240-97513-2

Matrix: Water | Lab File ID: U1900263.d

Analysis Method: 8260C | Date Collected: 06/21/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 66.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	55	U	67	55
67-66-3	Chloroform	8.7	U	67	8.7
74-87-3	Chloromethane	13	U	67	13
156-59-2	cis-1,2-Dichloroethene	1500		67	11
10061-01-5	cis-1,3-Dichloropropene	41	U	67	41
74-95-3	Dibromomethane	6.0	U	67	6.0
74-97-5	Bromochloromethane	9.3	U	67	9.3
75-71-8	Dichlorodifluoromethane	23	U	67	23
75-27-4	Bromodichloromethane	11	U	67	11
75-65-0	tert-Butyl alcohol	110	U	3300	110
100-41-4	Ethylbenzene	7.3	U	67	7.3
87-68-3	Hexachlorobutadiene	55	U	67	55
108-20-3	Diisopropyl ether	11	U	670	11
98-82-8	Isopropylbenzene	6.0	U	67	6.0
1634-04-4	Methyl tert-butyl ether	4.7	U	67	4.7
75-09-2	Methylene Chloride	170	U	330	170
179601-23-1	m-Xylene & p-Xylene	5.3	U	130	5.3
91-20-3	Naphthalene	21	U	67	21
104-51-8	n-Butylbenzene	9.3	U	67	9.3
103-65-1	N-Propylbenzene	10	U	67	10
95-47-6	o-Xylene	6.0	U	67	6.0
135-98-8	sec-Butylbenzene	8.7	U	67	8.7
100-42-5	Styrene	6.7	U	67	6.7
994-05-8	Tert-amyl methyl ether	7.3	U	330	7.3
637-92-3	Ethyl tert-butyl ether	10	U	330	10
127-18-4	Tetrachloroethene	10	U	67	10
108-88-3	Toluene	9.3	U	67	9.3
156-60-5	trans-1,2-Dichloroethene	13	U	67	13
10061-02-6	trans-1,3-Dichloropropene	45	U	67	45
79-01-6	Trichloroethene	2500		67	6.7
75-69-4	Trichlorofluoromethane	30	U	67	30
108-05-4	Vinyl acetate	13	U	130	13
75-01-4	Vinyl chloride	520		67	13
1330-20-7	Xylenes, Total	10	U	130	10
98-06-6	tert-Butylbenzene	9.3	U	67	9.3
106-93-4	1,2-Dibromoethane	8.0	U	67	8.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 Lab Sample ID: 240-97513-2

Matrix: Water Lab File ID: U1900263.d

Analysis Method: 8260C Date Collected: 06/21/2018 09:15

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 17:34

Soil Aliquot Vol: Dilution Factor: 66.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 | Lab Sample ID: 240-97513-2

Matrix: Water | Lab File ID: U1900263.d

Analysis Method: 8260C | Date Collected: 06/21/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 66.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 | Lab Sample ID: 240-97513-2

Matrix: Water | Lab File ID: U1900263.d

Analysis Method: 8260C | Date Collected: 06/21/2018 09:15

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 66.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		67	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 | Lab Sample ID: 240-97513-3

Matrix: Water | Lab File ID: U1900264.d

Analysis Method: 8260C | Date Collected: 06/21/2018 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 | Lab Sample ID: 240-97513-3

Matrix: Water | Lab File ID: U1900264.d

Analysis Method: 8260C | Date Collected: 06/21/2018 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.24	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 Lab Sample ID: 240-97513-3

Matrix: Water Lab File ID: U1900264.d

Analysis Method: 8260C Date Collected: 06/21/2018 10:50

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 17:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 | Lab Sample ID: 240-97513-3

Matrix: Water | Lab File ID: U1900264.d

Analysis Method: 8260C | Date Collected: 06/21/2018 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 | Lab Sample ID: 240-97513-3

Matrix: Water | Lab File ID: U1900264.d

Analysis Method: 8260C | Date Collected: 06/21/2018 10:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: U1900265.d

Analysis Method: 8260C | Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	7.0	U	50	7.0
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	6.5	U	50	6.5
76-13-1	1,1,2-Trichlorotrifluoroethane	21	U	50	21
75-34-3	1,1-Dichloroethane	8.5	U	50	8.5
75-35-4	1,1-Dichloroethene	9.5	U	50	9.5
563-58-6	1,1-Dichloropropene	7.0	U	50	7.0
87-61-6	1,2,3-Trichlorobenzene	27	U	50	27
96-18-4	1,2,3-Trichloropropane	12	U	50	12
526-73-8	1,2,3-Trimethylbenzene	7.0	U	250	7.0
120-82-1	1,2,4-Trichlorobenzene	13	U	50	13
95-63-6	1,2,4-Trimethylbenzene	3.5	U	50	3.5
96-12-8	1,2-Dibromo-3-Chloropropane	46	U	100	46
95-50-1	1,2-Dichlorobenzene	7.5	U	50	7.5
107-06-2	1,2-Dichloroethane	11	U	50	11
78-87-5	1,2-Dichloropropane	7.5	U	50	7.5
541-73-1	1,3-Dichlorobenzene	7.5	U	50	7.5
142-28-9	1,3-Dichloropropane	11	U	50	11
106-46-7	1,4-Dichlorobenzene	8.0	U	50	8.0
594-20-7	2,2-Dichloropropane	16	U	50	16
78-93-3	2-Butanone (MEK)	70	J	500	58
110-75-8	2-Chloroethyl vinyl ether	13	U	500	13
95-49-8	2-Chlorotoluene	7.5	U	50	7.5
591-78-6	2-Hexanone	27	U	500	27
106-43-4	4-Chlorotoluene	4.5	U	50	4.5
99-87-6	4-Isopropyltoluene	6.5	U	50	6.5
108-10-1	4-Methyl-2-pentanone (MIBK)	21	U	500	21
67-64-1	Acetone	270	U	500	270
71-43-2	Benzene	6.5	U	50	6.5
108-86-1	Bromobenzene	6.0	U	50	6.0
75-25-2	Bromoform	38	U	50	38
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	14	U	50	14
56-23-5	Carbon tetrachloride	13	U	50	13
108-90-7	Chlorobenzene	7.0	U	50	7.0
124-48-1	Chlorodibromomethane	20	U	50	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: U1900265.d

Analysis Method: 8260C | Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	42	U	50	42
67-66-3	Chloroform	6.5	U	50	6.5
74-87-3	Chloromethane	10	U	50	10
156-59-2	cis-1,2-Dichloroethene	830		50	8.0
10061-01-5	cis-1,3-Dichloropropene	31	U	50	31
74-95-3	Dibromomethane	4.5	U	50	4.5
74-97-5	Bromochloromethane	7.0	U	50	7.0
75-71-8	Dichlorodifluoromethane	18	U	50	18
75-27-4	Bromodichloromethane	8.5	U	50	8.5
75-65-0	tert-Butyl alcohol	85	U	2500	85
100-41-4	Ethylbenzene	6.4	J	50	5.5
87-68-3	Hexachlorobutadiene	42	U	50	42
108-20-3	Diisopropyl ether	8.5	U	500	8.5
98-82-8	Isopropylbenzene	4.5	U	50	4.5
1634-04-4	Methyl tert-butyl ether	3.5	U	50	3.5
75-09-2	Methylene Chloride	130	U	250	130
179601-23-1	m-Xylene & p-Xylene	4.0	U	100	4.0
91-20-3	Naphthalene	16	U	50	16
104-51-8	n-Butylbenzene	7.0	U	50	7.0
103-65-1	N-Propylbenzene	7.5	U	50	7.5
95-47-6	o-Xylene	4.5	U	50	4.5
135-98-8	sec-Butylbenzene	6.5	U	50	6.5
100-42-5	Styrene	5.0	U	50	5.0
994-05-8	Tert-amyl methyl ether	5.5	U	250	5.5
637-92-3	Ethyl tert-butyl ether	7.5	U	250	7.5
127-18-4	Tetrachloroethene	7.5	U	50	7.5
108-88-3	Toluene	19	J	50	7.0
156-60-5	trans-1,2-Dichloroethene	240		50	9.5
10061-02-6	trans-1,3-Dichloropropene	34	U	50	34
79-01-6	Trichloroethene	5.0	U	50	5.0
75-69-4	Trichlorofluoromethane	23	U	50	23
108-05-4	Vinyl acetate	9.5	U	100	9.5
75-01-4	Vinyl chloride	1300		50	10
1330-20-7	Xylenes, Total	7.5	U	100	7.5
98-06-6	tert-Butylbenzene	7.0	U	50	7.0
106-93-4	1,2-Dibromoethane	6.0	U	50	6.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 Lab Sample ID: 240-97513-4

Matrix: Water Lab File ID: U1900265.d

Analysis Method: 8260C Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 18:19

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: U1900265.d

Analysis Method: 8260C | Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: U1900265.d

Analysis Method: 8260C | Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		50	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062218 | Lab Sample ID: 240-97593-1

Matrix: Water | Lab File ID: U1900268.d

Analysis Method: 8260C | Date Collected: 06/22/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062218 | Lab Sample ID: 240-97593-1

Matrix: Water | Lab File ID: U1900268.d

Analysis Method: 8260C | Date Collected: 06/22/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	15	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062218 Lab Sample ID: 240-97593-1

Matrix: Water Lab File ID: U1900268.d

Analysis Method: 8260C Date Collected: 06/22/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 19:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062218 | Lab Sample ID: 240-97593-1

Matrix: Water | Lab File ID: U1900268.d

Analysis Method: 8260C | Date Collected: 06/22/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.3

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
1066-40-6	Silanol, trimethyl-	4.54	2.3	T J N	78%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062218 | Lab Sample ID: 240-97593-1

Matrix: Water | Lab File ID: U1900268.d

Analysis Method: 8260C | Date Collected: 06/22/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 | Lab Sample ID: 240-97593-2

Matrix: Water | Lab File ID: U1900269.d

Analysis Method: 8260C | Date Collected: 06/22/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.5	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	8.9	J	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 | Lab Sample ID: 240-97593-2

Matrix: Water | Lab File ID: U1900269.d

Analysis Method: 8260C | Date Collected: 06/22/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 Lab Sample ID: 240-97593-2

Matrix: Water Lab File ID: U1900269.d

Analysis Method: 8260C Date Collected: 06/22/2018 09:05

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	100		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 | Lab Sample ID: 240-97593-2

Matrix: Water | Lab File ID: U1900269.d

Analysis Method: 8260C | Date Collected: 06/22/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	3.21	2.0	T J	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 | Lab Sample ID: 240-97593-2

Matrix: Water | Lab File ID: U1900269.d

Analysis Method: 8260C | Date Collected: 06/22/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: U1900270.d

Analysis Method: 8260C | Date Collected: 06/22/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 33.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.7	U	33	4.7
71-55-6	1,1,1-Trichloroethane	8.0	U	33	8.0
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U	33	4.3
76-13-1	1,1,2-Trichlorotrifluoroethane	14	U	33	14
75-34-3	1,1-Dichloroethane	5.7	U	33	5.7
75-35-4	1,1-Dichloroethene	6.3	U	33	6.3
563-58-6	1,1-Dichloropropene	4.7	U	33	4.7
87-61-6	1,2,3-Trichlorobenzene	18	U	33	18
96-18-4	1,2,3-Trichloropropane	8.0	U	33	8.0
526-73-8	1,2,3-Trimethylbenzene	4.7	U	170	4.7
120-82-1	1,2,4-Trichlorobenzene	8.7	U	33	8.7
95-63-6	1,2,4-Trimethylbenzene	2.3	U	33	2.3
96-12-8	1,2-Dibromo-3-Chloropropane	30	U	67	30
95-50-1	1,2-Dichlorobenzene	5.0	U	33	5.0
107-06-2	1,2-Dichloroethane	7.0	U	33	7.0
78-87-5	1,2-Dichloropropane	5.0	U	33	5.0
541-73-1	1,3-Dichlorobenzene	5.0	U	33	5.0
142-28-9	1,3-Dichloropropane	7.0	U	33	7.0
106-46-7	1,4-Dichlorobenzene	5.3	U	33	5.3
594-20-7	2,2-Dichloropropane	10	U	33	10
78-93-3	2-Butanone (MEK)	39	U	330	39
110-75-8	2-Chloroethyl vinyl ether	8.7	U	330	8.7
95-49-8	2-Chlorotoluene	5.0	U	33	5.0
591-78-6	2-Hexanone	18	U	330	18
106-43-4	4-Chlorotoluene	3.0	U	33	3.0
99-87-6	4-Isopropyltoluene	4.3	U	33	4.3
108-10-1	4-Methyl-2-pentanone (MIBK)	14	U	330	14
67-64-1	Acetone	180	U	330	180
71-43-2	Benzene	6.3	J	33	4.3
108-86-1	Bromobenzene	4.0	U	33	4.0
75-25-2	Bromoform	25	U	33	25
74-83-9	Bromomethane	14	U	33	14
75-15-0	Carbon disulfide	9.3	U	33	9.3
56-23-5	Carbon tetrachloride	8.7	U	33	8.7
108-90-7	Chlorobenzene	67		33	4.7
124-48-1	Chlorodibromomethane	13	U	33	13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: U1900270.d

Analysis Method: 8260C | Date Collected: 06/22/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 33.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	28	U	33	28
67-66-3	Chloroform	4.3	U	33	4.3
74-87-3	Chloromethane	6.7	U	33	6.7
156-59-2	cis-1,2-Dichloroethene	260		33	5.3
10061-01-5	cis-1,3-Dichloropropene	20	U	33	20
74-95-3	Dibromomethane	3.0	U	33	3.0
74-97-5	Bromochloromethane	4.7	U	33	4.7
75-71-8	Dichlorodifluoromethane	12	U	33	12
75-27-4	Bromodichloromethane	5.7	U	33	5.7
75-65-0	tert-Butyl alcohol	56	U	1700	56
100-41-4	Ethylbenzene	3.7	U	33	3.7
87-68-3	Hexachlorobutadiene	28	U	33	28
108-20-3	Diisopropyl ether	5.7	U	330	5.7
98-82-8	Isopropylbenzene	3.0	U	33	3.0
1634-04-4	Methyl tert-butyl ether	2.3	U	33	2.3
75-09-2	Methylene Chloride	87	U	170	87
179601-23-1	m-Xylene & p-Xylene	2.7	U	67	2.7
91-20-3	Naphthalene	11	U	33	11
104-51-8	n-Butylbenzene	4.7	U	33	4.7
103-65-1	N-Propylbenzene	5.0	U	33	5.0
95-47-6	o-Xylene	3.0	U	33	3.0
135-98-8	sec-Butylbenzene	4.3	U	33	4.3
100-42-5	Styrene	3.3	U	33	3.3
994-05-8	Tert-amyl methyl ether	3.7	U	170	3.7
637-92-3	Ethyl tert-butyl ether	5.0	U	170	5.0
127-18-4	Tetrachloroethene	5.0	U	33	5.0
108-88-3	Toluene	4.7	U	33	4.7
156-60-5	trans-1,2-Dichloroethene	6.3	U	33	6.3
10061-02-6	trans-1,3-Dichloropropene	22	U	33	22
79-01-6	Trichloroethene	3.3	U	33	3.3
75-69-4	Trichlorofluoromethane	15	U	33	15
108-05-4	Vinyl acetate	6.3	U	67	6.3
75-01-4	Vinyl chloride	740		33	6.7
1330-20-7	Xylenes, Total	5.0	U	67	5.0
98-06-6	tert-Butylbenzene	4.7	U	33	4.7
106-93-4	1,2-Dibromoethane	4.0	U	33	4.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: U1900270.d

Analysis Method: 8260C | Date Collected: 06/22/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 33.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: U1900270.d

Analysis Method: 8260C | Date Collected: 06/22/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 33.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: U1900270.d

Analysis Method: 8260C | Date Collected: 06/22/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 33.33

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		33	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 | Lab Sample ID: 240-97593-8

Matrix: Water | Lab File ID: U1900271.d

Analysis Method: 8260C | Date Collected: 06/22/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 | Lab Sample ID: 240-97593-8

Matrix: Water | Lab File ID: U1900271.d

Analysis Method: 8260C | Date Collected: 06/22/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 Lab Sample ID: 240-97593-8

Matrix: Water Lab File ID: U1900271.d

Analysis Method: 8260C Date Collected: 06/22/2018 14:51

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 | Lab Sample ID: 240-97593-8

Matrix: Water | Lab File ID: U1900271.d

Analysis Method: 8260C | Date Collected: 06/22/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
1066-40-6	Silanol, trimethyl-	4.54	2.4	T J N	78%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 | Lab Sample ID: 240-97593-8

Matrix: Water | Lab File ID: U1900271.d

Analysis Method: 8260C | Date Collected: 06/22/2018 14:51

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062618 | Lab Sample ID: 240-97762-1

Matrix: Water | Lab File ID: U1900348.d

Analysis Method: 8260C | Date Collected: 06/26/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	7.0	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.79	J	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	24		10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062618 | Lab Sample ID: 240-97762-1

Matrix: Water | Lab File ID: U1900348.d

Analysis Method: 8260C | Date Collected: 06/26/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	31	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062618 Lab Sample ID: 240-97762-1

Matrix: Water Lab File ID: U1900348.d

Analysis Method: 8260C Date Collected: 06/26/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 19:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	108		69-124
460-00-4	4-Bromofluorobenzene (Surr)	97		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062618 | Lab Sample ID: 240-97762-1

Matrix: Water | Lab File ID: U1900348.d

Analysis Method: 8260C | Date Collected: 06/26/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

Number TICs Found: 2 | TIC Result Total: 11.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
110-54-3	Hexane	4.47	2.4	T J N	50%
1066-40-6	Silanol, trimethyl-	4.54	9.1	T J N	91%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: TB-062618 | Lab Sample ID: 240-97762-1

Matrix: Water | Lab File ID: U1900348.d

Analysis Method: 8260C | Date Collected: 06/26/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 19:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 | Lab Sample ID: 240-97762-2

Matrix: Water | Lab File ID: U1900349.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.37	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U F1	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.28	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 | Lab Sample ID: 240-97762-2

Matrix: Water | Lab File ID: U1900349.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	16		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U F1	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.54	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	29		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	3.2		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Matrix: Water Lab File ID: U1900349.d

Analysis Method: 8260C Date Collected: 06/26/2018 09:22

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	107		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 | Lab Sample ID: 240-97762-2

Matrix: Water | Lab File ID: U1900349.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:22

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 20:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
1066-40-6	Silanol, trimethyl-	4.54	3.2	T J N	90%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Matrix: Water Lab File ID: U1900349.d

Analysis Method: 8260C Date Collected: 06/26/2018 09:22

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 20:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 | Lab Sample ID: 240-97762-3

Matrix: Water | Lab File ID: U1900353.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:53

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 21:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.27	J	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.51	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.19	J	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.39	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 | Lab Sample ID: 240-97762-3

Matrix: Water | Lab File ID: U1900353.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:53

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 21:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	51		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.34	J	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.79	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	62		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	5.4		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Matrix: Water Lab File ID: U1900353.d

Analysis Method: 8260C Date Collected: 06/26/2018 11:53

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 21:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	109		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Matrix: Water Lab File ID: U1900353.d

Analysis Method: 8260C Date Collected: 06/26/2018 11:53

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 21:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Matrix: Water Lab File ID: U1900353.d

Analysis Method: 8260C Date Collected: 06/26/2018 11:53

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 21:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: U1900354.d

Analysis Method: 8260C | Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:01

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.56	U	4.0	0.56
71-55-6	1,1,1-Trichloroethane	0.96	U	4.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	4.0	0.52
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	4.0	1.6
75-34-3	1,1-Dichloroethane	0.68	U	4.0	0.68
75-35-4	1,1-Dichloroethene	0.76	U	4.0	0.76
563-58-6	1,1-Dichloropropene	0.56	U	4.0	0.56
87-61-6	1,2,3-Trichlorobenzene	2.2	U	4.0	2.2
96-18-4	1,2,3-Trichloropropane	0.96	U	4.0	0.96
526-73-8	1,2,3-Trimethylbenzene	0.56	U	20	0.56
120-82-1	1,2,4-Trichlorobenzene	1.0	U	4.0	1.0
95-63-6	1,2,4-Trimethylbenzene	0.28	U	4.0	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	8.0	3.6
95-50-1	1,2-Dichlorobenzene	0.60	U	4.0	0.60
107-06-2	1,2-Dichloroethane	1.9	J	4.0	0.84
78-87-5	1,2-Dichloropropane	0.60	U	4.0	0.60
541-73-1	1,3-Dichlorobenzene	0.60	U	4.0	0.60
142-28-9	1,3-Dichloropropane	0.84	U	4.0	0.84
106-46-7	1,4-Dichlorobenzene	0.64	U	4.0	0.64
594-20-7	2,2-Dichloropropane	1.2	U	4.0	1.2
78-93-3	2-Butanone (MEK)	4.6	U	40	4.6
110-75-8	2-Chloroethyl vinyl ether	1.0	U	40	1.0
95-49-8	2-Chlorotoluene	0.60	U	4.0	0.60
591-78-6	2-Hexanone	2.2	U	40	2.2
106-43-4	4-Chlorotoluene	0.36	U	4.0	0.36
99-87-6	4-Isopropyltoluene	0.52	U	4.0	0.52
108-10-1	4-Methyl-2-pentanone (MIBK)	1.7	U	40	1.7
67-64-1	Acetone	22	U	40	22
71-43-2	Benzene	0.52	U	4.0	0.52
108-86-1	Bromobenzene	0.48	U	4.0	0.48
75-25-2	Bromoform	3.0	U	4.0	3.0
74-83-9	Bromomethane	1.7	U	4.0	1.7
75-15-0	Carbon disulfide	1.1	U	4.0	1.1
56-23-5	Carbon tetrachloride	1.0	U	4.0	1.0
108-90-7	Chlorobenzene	1.8	J	4.0	0.56
124-48-1	Chlorodibromomethane	1.6	U	4.0	1.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: U1900354.d

Analysis Method: 8260C | Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:01

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	3.3	U	4.0	3.3
67-66-3	Chloroform	0.52	U	4.0	0.52
74-87-3	Chloromethane	0.80	U	4.0	0.80
156-59-2	cis-1,2-Dichloroethene	80		4.0	0.64
10061-01-5	cis-1,3-Dichloropropene	2.4	U	4.0	2.4
74-95-3	Dibromomethane	0.36	U	4.0	0.36
74-97-5	Bromochloromethane	0.56	U	4.0	0.56
75-71-8	Dichlorodifluoromethane	1.4	U	4.0	1.4
75-27-4	Bromodichloromethane	0.68	U	4.0	0.68
75-65-0	tert-Butyl alcohol	6.8	U	200	6.8
100-41-4	Ethylbenzene	0.44	U	4.0	0.44
87-68-3	Hexachlorobutadiene	3.3	U	4.0	3.3
108-20-3	Diisopropyl ether	0.68	U	40	0.68
98-82-8	Isopropylbenzene	0.36	U	4.0	0.36
1634-04-4	Methyl tert-butyl ether	0.28	U	4.0	0.28
75-09-2	Methylene Chloride	10	U	20	10
179601-23-1	m-Xylene & p-Xylene	0.32	U	8.0	0.32
91-20-3	Naphthalene	1.3	U	4.0	1.3
104-51-8	n-Butylbenzene	0.56	U	4.0	0.56
103-65-1	N-Propylbenzene	0.60	U	4.0	0.60
95-47-6	o-Xylene	0.36	U	4.0	0.36
135-98-8	sec-Butylbenzene	0.52	U	4.0	0.52
100-42-5	Styrene	0.40	U	4.0	0.40
994-05-8	Tert-amyl methyl ether	0.44	U	20	0.44
637-92-3	Ethyl tert-butyl ether	0.60	U	20	0.60
127-18-4	Tetrachloroethene	0.73	J	4.0	0.60
108-88-3	Toluene	0.56	U	4.0	0.56
156-60-5	trans-1,2-Dichloroethene	2.8	J	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	2.7	U	4.0	2.7
79-01-6	Trichloroethene	160		4.0	0.40
75-69-4	Trichlorofluoromethane	1.8	U	4.0	1.8
108-05-4	Vinyl acetate	0.76	U	8.0	0.76
75-01-4	Vinyl chloride	18		4.0	0.80
1330-20-7	Xylenes, Total	0.60	U	8.0	0.60
98-06-6	tert-Butylbenzene	0.56	U	4.0	0.56
106-93-4	1,2-Dibromoethane	0.48	U	4.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Matrix: Water Lab File ID: U1900354.d

Analysis Method: 8260C Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 22:01

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	106		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Matrix: Water Lab File ID: U1900354.d

Analysis Method: 8260C Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 22:01

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: U1900354.d

Analysis Method: 8260C | Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:01

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		4.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: U1900355.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	1.1	J	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	1.2		1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	1.9		1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	1.1		1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: U1900355.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	24		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
100-41-4	Ethylbenzene	1.8		1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.18	J	10	0.17
98-82-8	Isopropylbenzene	0.33	J	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.71	J	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.36	J	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.36	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	4.0		1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.81	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	49		1.0	0.20
1330-20-7	Xylenes, Total	1.1	J	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Matrix: Water Lab File ID: U1900355.d

Analysis Method: 8260C Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: U1900355.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 22:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
1066-40-6	Silanol, trimethyl-	4.54	3.0	T J N	90%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Matrix: Water Lab File ID: U1900355.d

Analysis Method: 8260C Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 22:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: U1900373.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:35

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-65-0	tert-Butyl alcohol	2100	*	250	8.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	106		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: U1900373.d

Analysis Method: 8260C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:35

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: U1900374.d

Analysis Method: 8260C | Date Collected: 06/26/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	70	U	500	70
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	65	U	500	65
76-13-1	1,1,2-Trichlorotrifluoroethane	210	U	500	210
75-34-3	1,1-Dichloroethane	85	U	500	85
75-35-4	1,1-Dichloroethene	95	U	500	95
563-58-6	1,1-Dichloropropene	70	U	500	70
87-61-6	1,2,3-Trichlorobenzene	270	U	500	270
96-18-4	1,2,3-Trichloropropane	120	U	500	120
526-73-8	1,2,3-Trimethylbenzene	70	U	2500	70
120-82-1	1,2,4-Trichlorobenzene	330	J	500	130
95-63-6	1,2,4-Trimethylbenzene	35	U	500	35
96-12-8	1,2-Dibromo-3-Chloropropane	460	U	1000	460
95-50-1	1,2-Dichlorobenzene	75	U	500	75
107-06-2	1,2-Dichloroethane	190	J	500	110
78-87-5	1,2-Dichloropropane	75	U	500	75
541-73-1	1,3-Dichlorobenzene	75	U	500	75
142-28-9	1,3-Dichloropropane	110	U	500	110
106-46-7	1,4-Dichlorobenzene	80	U	500	80
594-20-7	2,2-Dichloropropane	160	U	500	160
78-93-3	2-Butanone (MEK)	580	U	5000	580
110-75-8	2-Chloroethyl vinyl ether	130	U	5000	130
95-49-8	2-Chlorotoluene	75	U	500	75
591-78-6	2-Hexanone	270	U	5000	270
106-43-4	4-Chlorotoluene	45	U	500	45
99-87-6	4-Isopropyltoluene	65	U	500	65
108-10-1	4-Methyl-2-pentanone (MIBK)	210	U	5000	210
67-64-1	Acetone	2700	U	5000	2700
71-43-2	Benzene	65	U	500	65
108-86-1	Bromobenzene	60	U	500	60
75-25-2	Bromoform	380	U	500	380
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	140	U	500	140
56-23-5	Carbon tetrachloride	130	U	500	130
108-90-7	Chlorobenzene	150	J	500	70
124-48-1	Chlorodibromomethane	200	U	500	200

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: U1900374.d

Analysis Method: 8260C | Date Collected: 06/26/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	420	U	500	420
67-66-3	Chloroform	75	J	500	65
74-87-3	Chloromethane	100	U	500	100
156-59-2	cis-1,2-Dichloroethene	7400		500	80
10061-01-5	cis-1,3-Dichloropropene	310	U	500	310
74-95-3	Dibromomethane	45	U	500	45
74-97-5	Bromochloromethane	70	U	500	70
75-71-8	Dichlorodifluoromethane	180	U	500	180
75-27-4	Bromodichloromethane	85	U	500	85
75-65-0	tert-Butyl alcohol	1100	J *	25000	850
100-41-4	Ethylbenzene	55	U	500	55
87-68-3	Hexachlorobutadiene	420	U	500	420
108-20-3	Diisopropyl ether	85	U	5000	85
98-82-8	Isopropylbenzene	45	U	500	45
1634-04-4	Methyl tert-butyl ether	35	U	500	35
75-09-2	Methylene Chloride	1300	U	2500	1300
179601-23-1	m-Xylene & p-Xylene	40	U	1000	40
91-20-3	Naphthalene	160	U	500	160
104-51-8	n-Butylbenzene	70	U	500	70
103-65-1	N-Propylbenzene	75	U	500	75
95-47-6	o-Xylene	45	U	500	45
135-98-8	sec-Butylbenzene	65	U	500	65
100-42-5	Styrene	50	U	500	50
994-05-8	Tert-amyl methyl ether	55	U	2500	55
637-92-3	Ethyl tert-butyl ether	75	U	2500	75
127-18-4	Tetrachloroethene	75	U	500	75
108-88-3	Toluene	70	U	500	70
156-60-5	trans-1,2-Dichloroethene	95	U	500	95
10061-02-6	trans-1,3-Dichloropropene	340	U	500	340
79-01-6	Trichloroethene	20000		500	50
75-69-4	Trichlorofluoromethane	230	U	500	230
108-05-4	Vinyl acetate	95	U	1000	95
75-01-4	Vinyl chloride	2700		500	100
1330-20-7	Xylenes, Total	75	U	1000	75
98-06-6	tert-Butylbenzene	70	U	500	70
106-93-4	1,2-Dibromoethane	60	U	500	60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 Lab Sample ID: 240-97762-6

Matrix: Water Lab File ID: U1900374.d

Analysis Method: 8260C Date Collected: 06/26/2018 10:10

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 18:57

Soil Aliquot Vol: Dilution Factor: 500

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	110		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: U1900374.d

Analysis Method: 8260C | Date Collected: 06/26/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: U1900374.d

Analysis Method: 8260C | Date Collected: 06/26/2018 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		500	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: U1900375.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 19:19

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	70	U	500	70
71-55-6	1,1,1-Trichloroethane	120	U	500	120
79-34-5	1,1,2,2-Tetrachloroethane	65	U	500	65
76-13-1	1,1,2-Trichlorotrifluoroethane	210	U	500	210
75-34-3	1,1-Dichloroethane	85	U	500	85
75-35-4	1,1-Dichloroethene	95	U	500	95
563-58-6	1,1-Dichloropropene	70	U	500	70
87-61-6	1,2,3-Trichlorobenzene	270	U	500	270
96-18-4	1,2,3-Trichloropropane	120	U	500	120
526-73-8	1,2,3-Trimethylbenzene	70	U	2500	70
120-82-1	1,2,4-Trichlorobenzene	130	U	500	130
95-63-6	1,2,4-Trimethylbenzene	35	U	500	35
96-12-8	1,2-Dibromo-3-Chloropropane	460	U	1000	460
95-50-1	1,2-Dichlorobenzene	75	U	500	75
107-06-2	1,2-Dichloroethane	200	J	500	110
78-87-5	1,2-Dichloropropane	75	U	500	75
541-73-1	1,3-Dichlorobenzene	75	U	500	75
142-28-9	1,3-Dichloropropane	110	U	500	110
106-46-7	1,4-Dichlorobenzene	80	U	500	80
594-20-7	2,2-Dichloropropane	160	U	500	160
78-93-3	2-Butanone (MEK)	580	U	5000	580
110-75-8	2-Chloroethyl vinyl ether	130	U	5000	130
95-49-8	2-Chlorotoluene	75	U	500	75
591-78-6	2-Hexanone	270	U	5000	270
106-43-4	4-Chlorotoluene	45	U	500	45
99-87-6	4-Isopropyltoluene	65	U	500	65
108-10-1	4-Methyl-2-pentanone (MIBK)	210	U	5000	210
67-64-1	Acetone	2700	U	5000	2700
71-43-2	Benzene	65	U	500	65
108-86-1	Bromobenzene	60	U	500	60
75-25-2	Bromoform	380	U	500	380
74-83-9	Bromomethane	210	U	500	210
75-15-0	Carbon disulfide	140	U	500	140
56-23-5	Carbon tetrachloride	130	U	500	130
108-90-7	Chlorobenzene	200	J	500	70
124-48-1	Chlorodibromomethane	200	U	500	200

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: U1900375.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 19:19

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	420	U	500	420
67-66-3	Chloroform	89	J	500	65
74-87-3	Chloromethane	100	U	500	100
156-59-2	cis-1,2-Dichloroethene	3900		500	80
10061-01-5	cis-1,3-Dichloropropene	310	U	500	310
74-95-3	Dibromomethane	45	U	500	45
74-97-5	Bromochloromethane	70	U	500	70
75-71-8	Dichlorodifluoromethane	180	U	500	180
75-27-4	Bromodichloromethane	85	U	500	85
75-65-0	tert-Butyl alcohol	850	U *	25000	850
100-41-4	Ethylbenzene	55	U	500	55
87-68-3	Hexachlorobutadiene	420	U	500	420
108-20-3	Diisopropyl ether	85	U	5000	85
98-82-8	Isopropylbenzene	45	U	500	45
1634-04-4	Methyl tert-butyl ether	35	U	500	35
75-09-2	Methylene Chloride	1300	U	2500	1300
179601-23-1	m-Xylene & p-Xylene	40	U	1000	40
91-20-3	Naphthalene	160	U	500	160
104-51-8	n-Butylbenzene	70	U	500	70
103-65-1	N-Propylbenzene	75	U	500	75
95-47-6	o-Xylene	45	U	500	45
135-98-8	sec-Butylbenzene	65	U	500	65
100-42-5	Styrene	50	U	500	50
994-05-8	Tert-amyl methyl ether	55	U	2500	55
637-92-3	Ethyl tert-butyl ether	75	U	2500	75
127-18-4	Tetrachloroethene	75	U	500	75
108-88-3	Toluene	70	U	500	70
156-60-5	trans-1,2-Dichloroethene	95	U	500	95
10061-02-6	trans-1,3-Dichloropropene	340	U	500	340
79-01-6	Trichloroethene	17000		500	50
75-69-4	Trichlorofluoromethane	230	U	500	230
108-05-4	Vinyl acetate	95	U	1000	95
75-01-4	Vinyl chloride	1900		500	100
1330-20-7	Xylenes, Total	75	U	1000	75
98-06-6	tert-Butylbenzene	70	U	500	70
106-93-4	1,2-Dibromoethane	60	U	500	60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: U1900375.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 19:19

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: U1900375.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 19:19

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: U1900375.d

Analysis Method: 8260C | Date Collected: 06/26/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 19:19

Soil Aliquot Vol: | Dilution Factor: 500

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		500	U	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: YF26010.D

Analysis Method: 552.2 | Date Collected: 06/21/2018 13:05

Extraction Method: 552.2 | Date Extracted: 06/26/2018 07:23

Sample wt/vol: 40(mL) | Date Analyzed: 06/26/2018 21:05

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: YF26010.D

Analysis Method: 552.2 | Date Collected: 06/21/2018 13:05

Extraction Method: 552.2 | Date Extracted: 06/26/2018 07:23

Sample wt/vol: 40(mL) | Date Analyzed: 06/26/2018 21:05

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	127		70-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6I-062018~~118~~ | Lab Sample ID: 240-97405-2

Matrix: Water | Lab File ID: 80628019.D

Analysis Method: 8270D | Date Collected: 06/20/2018 09:15

Extract. Method: 3510C | Date Extracted: 06/22/2018 08:25

Sample wt/vol: 270(mL) | Date Analyzed: 06/28/2018 14:45

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		28-128
4165-62-2	Phenol-d5 (Surr)	42		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	55		35-120
367-12-4	2-Fluorophenol (Surr)	56		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	67		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~18~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: 80628020.D

Analysis Method: 8270D | Date Collected: 06/20/2018 11:00

Extract. Method: 3510C | Date Extracted: 06/22/2018 08:25

Sample wt/vol: 270(mL) | Date Analyzed: 06/28/2018 15:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	66		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-0620~~118~~18 | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: 80628021.D

Analysis Method: 8270D | Date Collected: 06/20/2018 12:35

Extract. Method: 3510C | Date Extracted: 06/22/2018 08:25

Sample wt/vol: 280(mL) | Date Analyzed: 06/28/2018 15:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	65		28-128
4165-62-2	Phenol-d5 (Surr)	36		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
367-12-4	2-Fluorophenol (Surr)	58		17-120
321-60-8	2-Fluorobiphenyl (Surr)	54		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018 | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: 80628022.D

Analysis Method: 8270D | Date Collected: 06/20/2018 14:32

Extract. Method: 3510C | Date Extracted: 06/22/2018 08:25

Sample wt/vol: 270(mL) | Date Analyzed: 06/28/2018 16:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	69		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3I-062118 | Lab Sample ID: 240-97513-2

Matrix: Water | Lab File ID: 80628028.D

Analysis Method: 8270D | Date Collected: 06/21/2018 09:15

Extract. Method: 3510C | Date Extracted: 06/25/2018 07:17

Sample wt/vol: 270(mL) | Date Analyzed: 06/28/2018 18:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	140		4.6	1.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	74		17-120
321-60-8	2-Fluorobiphenyl (Surr)	67		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	57		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3D-062118 | Lab Sample ID: 240-97513-3

Matrix: Water | Lab File ID: 80627021.D

Analysis Method: 8270D | Date Collected: 06/21/2018 10:50

Extract. Method: 3510C | Date Extracted: 06/25/2018 07:17

Sample wt/vol: 270(mL) | Date Analyzed: 06/27/2018 14:53

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333640 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	63		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		35-120
367-12-4	2-Fluorophenol (Surr)	72		17-120
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: 80702009.D

Analysis Method: 8270D | Date Collected: 06/21/2018 13:05

Extract. Method: 3510C | Date Extracted: 06/25/2018 07:17

Sample wt/vol: 250(mL) | Date Analyzed: 07/02/2018 15:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 20

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334407 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	220		20	7.7

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	51		35-120
367-12-4	2-Fluorophenol (Surr)	50		17-120
321-60-8	2-Fluorobiphenyl (Surr)	52		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	54		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14D-062218 | Lab Sample ID: 240-97593-2

Matrix: Water | Lab File ID: 80628009.D

Analysis Method: 8270D | Date Collected: 06/22/2018 09:05

Extract. Method: 3510C | Date Extracted: 06/27/2018 08:28

Sample wt/vol: 270(mL) | Date Analyzed: 06/28/2018 10:30

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	55		35-120
367-12-4	2-Fluorophenol (Surr)	62		17-120
321-60-8	2-Fluorobiphenyl (Surr)	53		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-14I-062218 | Lab Sample ID: 240-97593-3

Matrix: Water | Lab File ID: 80628010.D

Analysis Method: 8270D | Date Collected: 06/22/2018 10:10

Extract. Method: 3510C | Date Extracted: 06/27/2018 08:28

Sample wt/vol: 260(mL) | Date Analyzed: 06/28/2018 10:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	32		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	36		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	65		17-120
321-60-8	2-Fluorobiphenyl (Surr)	56		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 | Lab Sample ID: 240-97593-8

Matrix: Water | Lab File ID: 80628011.D

Analysis Method: 8270D | Date Collected: 06/22/2018 14:51

Extract. Method: 3510C | Date Extracted: 06/27/2018 08:28

Sample wt/vol: 280(mL) | Date Analyzed: 06/28/2018 11:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		28-128
4165-62-2	Phenol-d5 (Surr)	48		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	71		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	79		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 | Lab Sample ID: 240-97762-2

Matrix: Water | Lab File ID: 80702010.D

Analysis Method: 8270D | Date Collected: 06/26/2018 09:22

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 260(mL) | Date Analyzed: 07/02/2018 16:16

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334407 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.98		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	56		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	67		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 | Lab Sample ID: 240-97762-3

Matrix: Water | Lab File ID: 80702013.D

Analysis Method: 8270D | Date Collected: 06/26/2018 11:53

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 260(mL) | Date Analyzed: 07/02/2018 17:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334407 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.7		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	55		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	74		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: 80702014.D

Analysis Method: 8270D | Date Collected: 06/26/2018 14:05

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 260(mL) | Date Analyzed: 07/02/2018 17:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334407 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.1		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	49		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	64		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: 80702017.D

Analysis Method: 8270D | Date Collected: 06/26/2018 09:05

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 270(mL) | Date Analyzed: 07/02/2018 19:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 4

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334407 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	84		3.7	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	64		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: 80703009.D

Analysis Method: 8270D | Date Collected: 06/26/2018 10:10

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 270(mL) | Date Analyzed: 07/03/2018 10:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 20

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	390		19	7.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	59		35-120
367-12-4	2-Fluorophenol (Surr)	58		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	51		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: 80703010.D

Analysis Method: 8270D | Date Collected: 06/26/2018 11:20

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 250(mL) | Date Analyzed: 07/03/2018 10:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	310		10	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
367-12-4	2-Fluorophenol (Surr)	61		17-120
321-60-8	2-Fluorobiphenyl (Surr)	56		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	47		33-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-062018~~18~~ | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: R062815.D

Analysis Method: 8015C | Date Collected: 06/20/2018 12:35

Extraction Method: 3520C | Date Extracted: 06/27/2018 11:41

Sample wt/vol: 260(mL) | Date Analyzed: 06/28/2018 20:47

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334006 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: R062814.D

Analysis Method: 8015C | Date Collected: 06/21/2018 13:05

Extraction Method: 3520C | Date Extracted: 06/27/2018 11:41

Sample wt/vol: 250(mL) | Date Analyzed: 06/28/2018 20:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334006 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	240	J	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	79		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: R070512.D

Analysis Method: 8015C | Date Collected: 06/26/2018 14:05

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 280(mL) | Date Analyzed: 07/05/2018 23:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	340	J	450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	87		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: R070513.D

Analysis Method: 8015C | Date Collected: 06/26/2018 09:05

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 280(mL) | Date Analyzed: 07/05/2018 23:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	5100		450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	96		37-130

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6S-0620118 | Lab Sample ID: 240-97405-4

Matrix: Water | Lab File ID: A0062609.D

Analysis Method: 8015C | Date Collected: 06/20/2018 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 09:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333416 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	92		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-3S-062118 | Lab Sample ID: 240-97513-4

Matrix: Water | Lab File ID: A0062610.D

Analysis Method: 8015C | Date Collected: 06/21/2018 13:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 09:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333416 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	660		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	88		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 | Lab Sample ID: 240-97762-4

Matrix: Water | Lab File ID: A0062915.D

Analysis Method: 8015C | Date Collected: 06/26/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 20:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	200		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 | Lab Sample ID: 240-97762-5

Matrix: Water | Lab File ID: A0062916.D

Analysis Method: 8015C | Date Collected: 06/26/2018 09:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 21:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	73	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	88		56-120

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-6I-062018 (18) Lab Sample ID: 240-97405-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 09:15

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.45	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

18

Client Sample ID: DMW-6I-0620~~118~~ Lab Sample ID: 240-97405-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 09:15

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.6	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.98	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	4.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	59	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.2	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	23	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	28000	100	47	ug/L			1	6020A
7439-96-5	Manganese	4600	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	52	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.6	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.34	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	1.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-6I-062018 ~~118~~ Lab Sample ID: 240-97405-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 09:15

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.77	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	15	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	3.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	3.0	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	62	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.6	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	8.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	29000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	4900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	54	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.83	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.26	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-6D-062018 (18) Lab Sample ID: 240-97405-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 11:00

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	2.9	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-6D-062018 ~~18~~ Lab Sample ID: 240-97405-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 11:00

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.0	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.82	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.69	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	35	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	8.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	340	100	47	ug/L			1	6020A
7439-96-5	Manganese	920	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	34	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-6D-062018 ~~118~~ Lab Sample ID: 240-97405-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 11:00

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	46	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.82	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.68	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	38	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	16	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	420	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1000	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	37	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.7	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	2.2	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-6S-062018 ~~118~~ Lab Sample ID: 240-97405-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 12:35

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-6S-062018 ~~118~~ Lab Sample ID: 240-97405-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 12:35

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	48	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	5.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	130000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	2.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-6S-0620~~118~~18 Lab Sample ID: 240-97405-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 12:35

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	4.4	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	47	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	5.5	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	120000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1300	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	2.4	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-30D-0620~~118~~ 18 Lab Sample ID: 240-97405-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 14:32

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-30D-062018 ~~18~~ Lab Sample ID: 240-97405-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 14:32

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	6.0	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	3.5	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	78	100	47	ug/L	J		1	6020A
7439-96-5	Manganese	7.7	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	4.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-30D-062018 ~~18~~ Lab Sample ID: 240-97405-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/20/2018 14:32

Reporting Basis: WET Date Received: 06/21/2018 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	5.5	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	3.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	4.8	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	6.5	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	4.3	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-3I-062118 Lab Sample ID: 240-97513-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 09:15

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-3I-062118 Lab Sample ID: 240-97513-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 09:15

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	17	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.84	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	150	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	240	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	4.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.8	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	37000	100	47	ug/L			1	6020A
7439-96-5	Manganese	5700	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	6.1	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.48	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	9.8	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-3I-062118 Lab Sample ID: 240-97513-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 09:15

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	2.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	17	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.55	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	140	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	260	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4.2	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	2.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	42000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	5900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	5.1	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.48	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	8.1	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-3D-062118 Lab Sample ID: 240-97513-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 10:50

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-3D-062118 Lab Sample ID: 240-97513-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 10:50

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	2.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.74	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	5.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	11	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	1100	100	47	ug/L			1	6020A
7439-96-5	Manganese	33	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	6.0	5.0	1.1	ug/L			1	6020A
7440-02-0	Nickel	10	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	2.3	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	0.92	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	8.7	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-3D-062118 Lab Sample ID: 240-97513-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 10:50

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	1.9	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	2.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.66	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	5.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	11	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	180	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	31	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	6.1	5.0	1.1	ug/L			1	6020A
7440-02-0	Dissolved Nickel	9.6	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	6.8	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-3S-062118 Lab Sample ID: 240-97513-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 13:05

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-3S-062118 Lab Sample ID: 240-97513-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 13:05

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	82	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.90	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	4.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	4.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	2300	100	47	ug/L			1	6020A
7439-96-5	Manganese	160	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	3.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	2.7	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	2.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	6.4	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-3S-062118 Lab Sample ID: 240-97513-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2018 13:05

Reporting Basis: WET Date Received: 06/22/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	7.0	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	85	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.76	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	1.9	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	250	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	140	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	4.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	2.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-14D-062218 Lab Sample ID: 240-97593-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 09:05

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-14D-062218 Lab Sample ID: 240-97593-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 09:05

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.99	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	1.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	130	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.0	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	12	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	27	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	280	100	47	ug/L			1	6020A
7439-96-5	Manganese	2.8	5.0	2.1	ug/L	J		1	6020A
7439-98-7	Molybdenum	14	5.0	1.1	ug/L			1	6020A
7440-02-0	Nickel	2.7	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.49	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	6.2	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-14D-062218 Lab Sample ID: 240-97593-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 09:05

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	1.0	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Dissolved Arsenic	1.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	120	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.86	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	9.3	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	22	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	130	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2.1	5.0	2.1	ug/L	U		1	6020A
7439-98-7	Dissolved Molybdenum	13	5.0	1.1	ug/L			1	6020A
7440-02-0	Dissolved Nickel	2.4	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.3	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	5.8	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-14I-062218 Lab Sample ID: 240-97593-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 10:10

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-14I-062218 Lab Sample ID: 240-97593-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 10:10

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	21	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	15	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	8.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	65000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1600	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	3.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.6	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-14I-062218 Lab Sample ID: 240-97593-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 10:10

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	22	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	8.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	67000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	3.6	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.6	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-31D-062218 Lab Sample ID: 240-97593-8

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 14:51

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-31D-062218 Lab Sample ID: 240-97593-8

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 14:51

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	30	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.69	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	2.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	3300	100	47	ug/L			1	6020A
7439-96-5	Manganese	340	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.47	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	1.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-31D-062218 Lab Sample ID: 240-97593-8

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 14:51

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	31	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.40	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	2.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	3200	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	330	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.1	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:22

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:22

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.4	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	2.5	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.3	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	42	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	17000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2100	5.0	2.1	ug/L		F1	1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	58	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.59	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	7.3	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.6	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:22

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	2.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	3.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	32	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	18000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2200	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	58	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.60	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	7.3	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.22	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	2.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:53

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:53

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	11	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.6	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	1.1	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	9.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	25000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2700	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	52	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	8.1	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	14	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50I-062618 Lab Sample ID: 240-97762-3

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:53

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	12	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	3.5	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	1.0	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	160	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	9.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	6.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	25000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	53	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	8.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	15	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 14:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 14:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	14	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	8.4	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.2	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	19	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Manganese	2400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	86	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.9	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	12	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	4.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 14:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	14	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	3.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	8.1	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	11	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	30000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	2400	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	84	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.5	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	12	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	4.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	22	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	300	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	42000	100	47	ug/L			1	6020A
7439-96-5	Manganese	520	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.6	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.5	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.96	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 09:05

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	17	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	290	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.7	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	38000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	530	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.3	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.2	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.089	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-52I-062618 Lab Sample ID: 240-97762-6

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 10:10

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-52I-062618 Lab Sample ID: 240-97762-6

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 10:10

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	410	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	320	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.1	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	16	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	13000	100	47	ug/L			1	6020A
7439-96-5	Manganese	6100	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	100	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	3.2	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	7.7	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.27	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	14	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.96	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-52I-062618 Lab Sample ID: 240-97762-6

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 10:10

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.2	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	240	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	320	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.8	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	2.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	13000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6000	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	100	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.7	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	7.5	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.24	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	9.4	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.14	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-52D-062618 Lab Sample ID: 240-97762-7

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:20

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-52D-062618 Lab Sample ID: 240-97762-7

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:20

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	11	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	91	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	13	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	5400	100	47	ug/L			1	6020A
7439-96-5	Manganese	3800	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	73	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.84	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	8.0	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	4.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.47	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-52D-062618 Lab Sample ID: 240-97762-7

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/26/2018 11:20

Reporting Basis: WET Date Received: 06/27/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	9.7	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	20	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	72	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	160	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	12	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	4.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	5300	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	70	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.62	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	7.7	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	3.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: DMW-9I-062218 Lab Sample ID: 240-97593-4

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 10:40

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	9.6	1.0	0.50	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: DMW-9D-062218 Lab Sample ID: 240-97593-5

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 11:10

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.4	1.0	0.50	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: DMW-9S-062218 Lab Sample ID: 240-97593-6

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 11:40

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	21	1.0	0.50	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: DMW-11S-062218 Lab Sample ID: 240-97593-7

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2018 12:30

Reporting Basis: WET Date Received: 06/23/2018 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	9.6	1.0	0.50	mg/L			1	9060A

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: DMW-6D-062018~~118~~ | Lab Sample ID: 240-97405-3

Matrix: Water | Lab File ID: Perc_06282018A_039.d

Analysis Method: 6850 | Date Collected: 06/20/2018 11:00

Extraction Method: Filtration | Date Extracted: 06/26/2018 09:42

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/28/2018 17:53

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 231521 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.13	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-30D-062018~~18~~ | Lab Sample ID: 240-97405-5

Matrix: Water | Lab File ID: Perc_06282018A_044.d

Analysis Method: 6850 | Date Collected: 06/20/2018 14:32

Extraction Method: Filtration | Date Extracted: 06/26/2018 09:42

Sample wt/vol: 4.00(mL) | Date Analyzed: 06/28/2018 19:00

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 231521 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.11	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-31D-062218 Lab Sample ID: 240-97593-8

Matrix: Water Lab File ID: Perc_07062018A_071.d

Analysis Method: 6850 Date Collected: 06/22/2018 14:51

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 10:58

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50D-062618 Lab Sample ID: 240-97762-2

Matrix: Water Lab File ID: Perc_07062018A_022.d

Analysis Method: 6850 Date Collected: 06/26/2018 09:22

Extraction Method: Filtration Date Extracted: 07/05/2018 13:14

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 00:06

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.17	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50I-062618 | Lab Sample ID: 240-97762-3

Matrix: Water | Lab File ID: Perc_07062018A_074.d

Analysis Method: 6850 | Date Collected: 06/26/2018 11:53

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 11:38

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-50S-062618 Lab Sample ID: 240-97762-4

Matrix: Water Lab File ID: Perc_07062018A_052.d

Analysis Method: 6850 Date Collected: 06/26/2018 14:05

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 06:45

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52S-062618 Lab Sample ID: 240-97762-5

Matrix: Water Lab File ID: Perc_07062018A_050.d

Analysis Method: 6850 Date Collected: 06/26/2018 09:05

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 06:18

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52I-062618 | Lab Sample ID: 240-97762-6

Matrix: Water | Lab File ID: Perc_07062018A_049.d

Analysis Method: 6850 | Date Collected: 06/26/2018 10:10

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 06:05

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: MSA-MW-52D-062618 | Lab Sample ID: 240-97762-7

Matrix: Water | Lab File ID: Perc_07062018A_048.d

Analysis Method: 6850 | Date Collected: 06/26/2018 11:20

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 05:52

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 372393

Lab ID: LCS 160-372393/1-A
Client ID:
Sigma: 2
Analyzed: 07/01/18 12:53
Detector: Orange9
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 2
Ts: 100
Tb: 1000

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	11.01	0.711	1.22		pCi/L	1.00	0.151	977	88	9.770	0.088	0.19956	373449

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02880				g		0.0339	85.0	40 - 110

Lab ID: LCSD 160-372393/2-A
Client ID:
Sigma: 2
Analyzed: 07/01/18 12:53
Detector: Orange10
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 2
Ts: 100
Tb: 1000

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	11.08	0.760	1.25		pCi/L	1.00	0.157	865	71	8.650	0.071	0.16382	373449

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03090				g		0.0339	91.2	40 - 110

Lab ID: 240-97405-2
Client ID: DMW-6I-0620~~118~~ 18
Sigma: 2
Analyzed: 07/01/18 12:53
Detector: Orange11
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 2
Ts: 100
Tb: 1000

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	3.66	0.404	0.521		pCi/L	1.00	0.145	347	90	3.470	0.090	0.19866	373449

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0304				g		0.0339	89.7	40 - 110

Lab ID: 240-97405-3
Client ID: DMW-6D-0620~~118~~ 18
Sigma: 2
Analyzed: 07/01/18 12:53
Detector: Orange12
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 2
Ts: 100
Tb: 1000

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	2.85	0.359	0.441		pCi/L	1.00	0.118	263	49	2.630	0.049	0.19643	373449

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0301				g		0.0339	88.8	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 372393

Lab ID: 240-97405-4 | Analyzed: 07/01/18 12:53 | Decay Corrected: No | Ts: 100
Client ID: DMW-6S-0620~~118~~ 18 | Detector: Orange13 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.579	0.180	0.187		pCi/L	1.00	0.158	60	97	0.600	0.097	0.19869	373449

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0286				g		0.0339	84.4	40 - 110

Lab ID: MB 160-372393/7-A | Analyzed: 07/01/18 12:53 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Orange15 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.09685	0.102	0.102	U	pCi/L	1.00	0.160	18	97	0.180	0.097	0.19449	373449

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02880				g		0.0339	85.0	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-372393/7-A	Total Alpha Radium			0.09685	U	pCi/L							1.89868712

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-372393/1-A	Total Alpha Radium		11.4	11.01		pCi/L	97	67 - 133	1				-.3945361979

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-372393/2-A	Total Alpha Radium		11.4	11.08		pCi/L	98	67 - 133	1	0.03	0.08	1	-.3113899877

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 373622

Lab ID: LCS 160-373622/1-A | Analyzed: 07/05/18 21:04 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	11.17	0.972	1.40		pCi/L	1.00	0.309	553	120	5.530	0.120	0.21071	374197

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02940				g		0.0339	86.7	40 - 110

Lab ID: LCSD 160-373622/2-A | Analyzed: 07/05/18 21:04 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple4 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	11.00	0.968	1.38		pCi/L	1.00	0.232	528	54	5.280	0.054	0.20197	374197

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03010				g		0.0339	88.8	40 - 110

Lab ID: 240-97513-2 | Analyzed: 07/05/18 21:04 | Decay Corrected: No | Ts: 100
Client ID: DMW-3I-062118 | Detector: Purple5 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.379	0.221	0.224		pCi/L	1.00	0.239	18	33	0.180	0.033	0.20655	374197

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0240				g		0.0339	70.8	40 - 110

Lab ID: 240-97513-3 | Analyzed: 07/05/18 21:04 | Decay Corrected: No | Ts: 100
Client ID: DMW-3D-062118 | Detector: Purple6 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.241	0.185	0.186	U	pCi/L	1.00	0.250	16	54	0.160	0.054	0.20320	374197

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0277				g		0.0339	81.7	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 373622

Lab ID:	MB 160-373622/5-A	Analyzed:	07/05/18 21:04	Decay Corrected:	No	Ts:	100
Client ID:		Detector:	Purple7	Yield Truncated:	No	Tb:	1000
Sigma:	2	Dil Fac:	1	Calibration Type:	2		

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.02220	0.113	0.113	U	pCi/L	1.00	0.238	6	50	0.060	0.050	0.19803	374197

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02910				g		0.0339	85.8	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-373622/5-A	Total Alpha Radium			0.02220	U	pCi/L							.39217119

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-373622/1-A	Total Alpha Radium		11.4	11.17		pCi/L	98	67 - 133	2				-.1829975901

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-373622/2-A	Total Alpha Radium		11.4	11.00		pCi/L	97	67 - 133	2	0.06	0.18	1	-.3596012451

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 372384

Lab ID: LCS 160-372384/1-A
Client ID:
Sigma: 2
Analyzed: 07/02/18 14:30
Detector: Orange0
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 1
Ts: 200
Tb: 1000

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	9.650	0.672	1.11		pCi/L	1.00	0.395	1018	467	5.090	0.467	0.44771	373489

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03340				g		0.0339	98.5	40 - 110
Y Carrier	0.02330				g		0.0268	87.1	40 - 110

Lab ID: LCSD 160-372384/2-A
Client ID:
Sigma: 2
Analyzed: 07/02/18 14:30
Detector: Orange1
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 1
Ts: 200
Tb: 1000

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	10.20	0.707	1.17		pCi/L	1.00	0.378	986	365	4.930	0.365	0.43860	373489

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03270				g		0.0339	96.5	40 - 110
Y Carrier	0.02270				g		0.0268	84.9	40 - 110

Lab ID: 240-97405-2
Client ID: DMW-6I-0620~~118~~ 18
Sigma: 2
Analyzed: 07/02/18 14:30
Detector: Orange2
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 1
Ts: 200
Tb: 1000

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	9.34	0.673	1.09		pCi/L	1.00	0.388	941	410	4.705	0.410	0.44123	373489

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0324				g		0.0339	95.6	40 - 110
Y Carrier	0.0234				g		0.0268	87.5	40 - 110

Lab ID: 240-97405-3
Client ID: DMW-6D-0620~~118~~ 18
Sigma: 2
Analyzed: 07/02/18 14:30
Detector: Orange3
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 1
Ts: 200
Tb: 1000

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	6.76	0.652	0.902		pCi/L	1.00	0.544	687	665	3.435	0.665	0.44044	373489

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0282				g		0.0339	83.2	40 - 110
Y Carrier	0.0240				g		0.0268	89.7	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 372384

Lab ID: 240-97405-4 | Analyzed: 07/02/18 14:30 | Decay Corrected: No | Ts: 200
Client ID: DMW-6S-0620~~118~~ 18 | Detector: Orange4 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	1.06	0.306	0.321		pCi/L	1.00	0.386	168	372	0.840	0.372	0.44151	373489

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0305				g		0.0339	90.0	40 - 110
Y Carrier	0.0239				g		0.0268	89.3	40 - 110

Lab ID: MB 160-372384/11-A | Analyzed: 07/02/18 14:31 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Orange11 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	-0.08489	0.254	0.254	U	pCi/L	1.00	0.459	130	692	0.650	0.692	0.43644	373489

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03430				g		0.0339	101	40 - 110
Y Carrier	0.02410				g		0.0268	90.1	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-372384/11-A	Radium-228			-0.08489	U	pCi/L							-.66862939

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-372384/1-A	Radium-228		8.18	9.650		pCi/L	118	56 - 140	6				2.0162847164

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-372384/2-A	Radium-228		8.18	10.20		pCi/L	125	56 - 140	6	0.24	0.68	1	2.6851286951

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 373621

Lab ID: LCS 160-373621/1-A | Analyzed: 07/06/18 15:15 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Protean15 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	9.143	0.654	1.07		pCi/L	1.00	0.408	996	522	4.980	0.522	0.43167	374245

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03410				g		0.0339	101	40 - 110
Y Carrier	0.02280				g		0.0268	85.2	40 - 110

Lab ID: LCSD 160-373621/2-A | Analyzed: 07/06/18 15:18 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Orange0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	8.682	0.614	1.01		pCi/L	1.00	0.365	992	467	4.960	0.467	0.44827	374349

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03600				g		0.0339	106	40 - 110
Y Carrier	0.02220				g		0.0268	83.0	40 - 110

Lab ID: 240-97513-2 | Analyzed: 07/06/18 15:18 | Decay Corrected: No | Ts: 200
Client ID: DMW-3I-062118 | Detector: Orange1 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	7.22	0.600	0.895		pCi/L	1.00	0.372	729	365	3.645	0.365	0.43860	374349

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0316				g		0.0339	93.2	40 - 110
Y Carrier	0.0227				g		0.0268	84.9	40 - 110

Lab ID: 240-97513-3 | Analyzed: 07/06/18 15:18 | Decay Corrected: No | Ts: 200
Client ID: DMW-3D-062118 | Detector: Orange2 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.398	0.277	0.279	U	pCi/L	1.00	0.430	115	410	0.575	0.410	0.44197	374349

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0295				g		0.0339	87.0	40 - 110
Y Carrier	0.0220				g		0.0268	82.2	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 373621

Lab ID: MB 160-373621/5-A
Client ID:
Sigma: 2
Analyzed: 07/06/18 15:19
Detector: Orange3
Dil Fac: 1
Decay Corrected: No
Yield Truncated: No
Calibration Type: 1
Ts: 200
Tb: 1000

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.02178	0.277	0.277	U	pCi/L	1.00	0.485	135	665	0.675	0.665	0.44218	374349

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03490				g		0.0339	103	40 - 110
Y Carrier	0.02060				g		0.0268	77.0	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-373621/5-A	Radium-228			0.02178	U	pCi/L							.15732507

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-373621/1-A	Radium-228		8.17	9.143		pCi/L	112	56 - 140	5				1.3650503339

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-373621/2-A	Radium-228		8.17	8.682		pCi/L	106	56 - 140	5	0.22	0.63	1	.7429984445

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Appendix C

Support Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

6 of 6 1.4/C1.4 1.2/C1.2 180323

Chain of Custody Record

BALTIMORE

TestAmerica

Client Information	Sampler: Walt Patton	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 528-3025	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015630~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Gw	Dup	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Radium 224, 226, 228 (9315)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A									
TB - 062018	6/20/18	—	G	Water			2	-	-	-	-	-	-	-		
DMW-6I-062018		0915					3	-	-	2	1	1	-	3		
DMW-6D-062018		1100					3	-	-	2	1	1	1	3		
DMW-6S-062018		1235					3	2	2	2	1	1	-	3		
MSA-MW-30D-062018		1432					3	-	-	2	1	1	1	-		

240-97405 Chain of Custody

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Walt R	6/20/18 1530	TT BMC	Received by:	6/25/18 1530	TA
Relinquished by:	6/25/18 1612	TA	Received by:	6-21-18 910	TAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.2/C1.2

Chain of Custody Record

TestAmerica BALTIMORE

Client Information	Sampler: Walt Payson	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3514	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #: 180325

Address: 20251 Century Blvd Suite 200	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Germantown	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874			
Phone: 301 528-3021	PO #: 1119970		
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776		
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015630~~ 112ICU9424		Other:
Site: Dump rd	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List (90150)	Geo (90150)	Dec (90150)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Radium 224, 226, 228 (9015)	Haloacetic Acid (552.2)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A									
TB-062118	6/21/18	—	G	Water			2	-	-	-	-	-	-	-		
Dmw-3I-062118		0915					3	-	-	2	1	1	3	-		
Dmw-3D-062118		1050					3	-	-	2	1	1	3	-		
Dmw-3s-062118		1305					3	2	2	2	1	1	-	2		

240-97513 Chain of Custody

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payson	6/21/18 1500	TT Inc		6/21/18 15:00	
Relinquished by:	Date/Time: 6/21/18	Company	Received by:	Date/Time: 6/22/18 9:30	Company TA Canton
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

20/C20

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA - GW 2018	Project #: ~~24015630~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

180325 BALTIMORE

Preservation Codes:
A - HCl
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List (8270D)	1,4 Dioxane (6020A)	Total metals (6020A)	Diss metals (6020A)	Diss DOC (9060)	Leachate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A							
TB-062218	6/22/18	—	G	Water			2	-	-	-	-	-		
MSA-MW-14D-062218		0905					3	2	1	1	-	-		
MSA-MW-14I-062218		1010					3	2	1	1	-	-		
DMW-9I-062218		1040					-	-	-	-	2	-		
DMW-9D-062218		1110					-	-	-	-	2	-		
DMW-9S-062218		1140					-	-	-	-	2	-		
DMW-11S-062218		1230					-	-	-	-	2	-		
MSA-MW-31D-062218		1451					3	2	1	1	-	1		

240-97593 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Walt Payne	6/22/18 / 1425	TT INC		6/22/18 1425	
	6/22/18		BOP	6/23/18 845	TAL

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

1.6/C1.6
0.8/C0.8

Chain of Custody Record

TestAmerica BALTIMORE 180325

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA-GW 2018	Project #: ~~24015639~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Geo (8015C)	Dro (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Special Instructions/Note:
			Preservation Code:				A							
TB-062618	6/26/18	—	G	Water			2	-	-	-	-	-	-	
MSA-MW-50D-062618		0922					9	-	-	6	3	3	3	# MS/MSD
MSA-MW-50I-062618		1153					3	-	-	2	1	1	1	
MSA-MW-50S-062618		1405					3	2	2	2	1	1	1	
MSA-MW-52S-062618		0905					3	2	2	2	1	1	1	
MSA-MW-52I-062618		1010					3	-	-	2	1	1	1	
MSA-MW-52D-062618		1120					3	-	-	2	1	1	1	

240-97762 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Walt Payne	6/26/18 1510	TT Inc		6/26/18 15:10	
	6/26/18			6/27/18 930	TAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-97405-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The 552.2 Haloacetic Acid (HAAS) analysis was performed at the TestAmerica Savannah laboratory. The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento laboratory. The 903.0 Radium-226 and the 904.0 Radium-228 analyses were performed at the TestAmerica St. Louis laboratory. The 9060A Dissolved Organic Carbon analysis was performed at the TestAmerica Nashville laboratory. The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 6/21/2018 9:10 AM, 6/22/2018 9:30 AM, 6/23/2018 9:45 AM and 6/27/2018 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.8º C, 1.2º C, 1.2º C, 1.4º C, 1.6º C and 2.0º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-062018 (240-97405-1), TB-062118 (240-97513-1), TB-062218 (240-97593-1), TB-062618 (240-97762-1), DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 06/26/2018, 06/28/2018, 07/02/2018 and 07/03/2018.

tert-Butyl alcohol failed the recovery criteria high for LCS 240-334645/4.

Samples DMW-3I-062118 (240-97513-2)[66.67X], MSA-MW-14I-062218 (240-97513-3)[33.33X], MSA-MW-50S-062618 (240-97513-4)[4X], DMW-3S-062118 (240-97513-4)[50X], MSA-MW-52S-062618 (240-97513-5)[5X], MSA-MW-52I-062618 (240-97513-6)[500X] and MSA-MW-52D-062618 (240-97513-7)[500X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples were received preserved with hydrochloric acid: TB-062018 (240-97405-1), TB-062118 (240-97513-1), TB-062218 (240-97593-1), TB-062618 (240-97762-1), DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The continuing calibration verification (CCV) analyzed in batch 240-333899 was outside the method criteria for the following analyte(s): cis-1,3-Dichloropropene, 2-Chloroethyl vinyl ether, Tert-amyl methyl ether and Tert-butyl ethyl ether. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample

analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-062118 (240-97513-1), DMW-3I-062118 (240-97513-2), DMW-3D-062118 (240-97513-3), DMW-3S-062118 (240-97513-4), TB-062218 (240-97593-1), MSA-MW-14D-062218 (240-97593-2), MSA-MW-14I-062218 (240-97593-3), MSA-MW-31D-062218 (240-97593-8), (CCV 240-333899/4) and (CCVIS 240-333899/5)

The continuing calibration verification (CCV) analyzed in batch 240-334440 was outside the method criteria for multiple analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for analytical batch 240-334645 recovered outside control limits for 2-methyl-2-propanol. This analyte has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The results have been reported and qualified.

The continuing calibration verification (CCV) analyzed in batch 240-334645 was outside the method criteria for multiple analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 06/22/2018, 06/25/2018, 06/27/2018 and 06/28/2018 and analyzed on 06/27/2018, 06/28/2018, 07/02/2018 and 07/03/2018.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for MSA-MW-50D-062618MSD (240-97762-2MSD).

Samples DMW-3I-062118 (240-97513-2)[5X], DMW-3S-062118 (240-97513-4)[20X], MSA-MW-52S-062618 (240-97513-5)[4X], MSA-MW-52I-062618 (240-97513-6)[20X] and MSA-MW-52D-062618 (240-97513-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-332882, 240-333235 and 240-333681.

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

GASOLINE RANGE ORGANICS (GRO)

Samples DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4) and MSA-MW-52S-062618 (240-97762-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 06/26/2018 and 06/29/2018.

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

HALOACETIC ACIDS (HAAS)

Sample DMW-3S-062118 (240-97513-4) was analyzed for Haloacetic Acids (HAAs) in accordance with EPA Method 552.2. The sample was prepared and analyzed on 06/26/2018.

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

DIESEL RANGE ORGANICS (DRO)

Samples DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4) and MSA-MW-52S-062618 (240-97762-5) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 06/27/2018 and 07/02/2018 and analyzed on 06/28/2018 and 07/05/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-333746 and 240-334451.

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

PERCHLORATE

Samples MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), MSA-MW-50I-062618 (240-97762-3), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 06/26/2018, 07/02/2018 and 07/05/2018 and analyzed on 06/28/2018 and 07/11/2018.

The following samples MSA-MW-31D-062218 (240-97593-8), MSA-MW-52S-062618 (240-97762-5), (240-97593-F-8 MS) and (240-97593-F-8 MSD) in preparation batch 320-232133 were observed to have some orange residue on the bottom of the sample containers.

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

DISSOLVED METALS (ICPMS)

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 06/22/2018, 06/25/2018 and 06/28/2018 and analyzed on 06/23/2018, 06/26/2018 and 06/29/2018.

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

TOTAL RECOVERABLE METALS (ICPMS)

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 06/22/2018, 06/25/2018 and 06/28/2018 and analyzed on 06/23/2018, 06/26/2018 and 06/29/2018.

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

DISSOLVED MERCURY (CVAA)

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/22/2018, 06/25/2018 and 06/28/2018 and analyzed on 06/23/2018, 06/26/2018 and 06/29/2018.

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

TOTAL MERCURY

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), MSA-MW-14D-062218 (240-97593-2), MSA-MW-50D-062618 (240-97762-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3), MSA-MW-14I-062218 (240-97593-3), MSA-MW-50I-062618 (240-97762-3), DMW-6S-0620118 (240-97405-4), DMW-3S-062118 (240-97513-4), MSA-MW-50S-062618 (240-97762-4), MSA-MW-30D-0620118 (240-97405-5), MSA-MW-52S-062618 (240-97762-5), MSA-MW-52I-062618 (240-97762-6), MSA-MW-52D-062618 (240-97762-7) and MSA-MW-31D-062218 (240-97593-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/22/2018, 06/25/2018 and 06/28/2018 and analyzed on 06/23/2018, 06/26/2018 and 06/29/2018.

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

RADIUM-228

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3) and DMW-6S-0620118 (240-97405-4) were analyzed for Radium-228 in accordance with EPA Method 904.0. The samples were prepared on 06/25/2018 and 07/02/2018 and analyzed on 07/02/2018 and 07/06/2018.

Radium 228 Prep Batch 160-372384: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-6I-0620118 (240-97405-2), DMW-6D-0620118 (240-97405-3) and DMW-6S-0620118 (240-97405-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Radium 228 Prep Batch 160-373621: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-3I-062118 (240-97513-2) and DMW-3D-062118 (240-97513-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

DISOLVED ORGANIC CARBON

Samples DMW-9I-062218 (240-97593-4), DMW-9D-062218 (240-97593-5), DMW-9S-062218 (240-97593-6) and DMW-11S-062218 (240-97593-7) were analyzed for disolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 07/09/2018.

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

TOTAL ALPHA RADIUM

Samples DMW-6I-0620118 (240-97405-2), DMW-3I-062118 (240-97513-2), DMW-6D-0620118 (240-97405-3), DMW-3D-062118 (240-97513-3) and DMW-6S-0620118 (240-97405-4) were analyzed for Total Alpha Radium in accordance with EPA Method 903.0. The samples were prepared on 06/25/2018 and 07/02/2018 and analyzed on 07/01/2018 and 07/05/2018.

Total Alpha Radium Prep Batch 160-372393: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-6I-0620118 (240-97405-2), DMW-6D-0620118 (240-97405-3) and DMW-6S-0620118 (240-97405-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Total Alpha Radium Prep Batch 160-373622: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-3I-062118 (240-97513-2) and DMW-3D-062118 (240-97513-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97405-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-97405-1	TB-062018	Water	06/20/18 00:00	06/21/18 09:10
240-97405-2	DMW-6I-0620118	Water	06/20/18 09:15	06/21/18 09:10
240-97405-3	DMW-6D-0620118	Water	06/20/18 11:00	06/21/18 09:10
240-97405-4	DMW-6S-0620118	Water	06/20/18 12:35	06/21/18 09:10
240-97405-5	MSA-MW-30D-0620118	Water	06/20/18 14:32	06/21/18 09:10
240-97513-1	TB-062118	Water	06/21/18 00:00	06/22/18 09:30
240-97513-2	DMW-3I-062118	Water	06/21/18 09:15	06/22/18 09:30
240-97513-3	DMW-3D-062118	Water	06/21/18 10:50	06/22/18 09:30
240-97513-4	DMW-3S-062118	Water	06/21/18 13:05	06/22/18 09:30
240-97593-1	TB-062218	Water	06/22/18 00:00	06/23/18 09:45
240-97593-2	MSA-MW-14D-062218	Water	06/22/18 09:05	06/23/18 09:45
240-97593-3	MSA-MW-14I-062218	Water	06/22/18 10:10	06/23/18 09:45
240-97593-4	DMW-9I-062218	Water	06/22/18 10:40	06/23/18 09:45
240-97593-5	DMW-9D-062218	Water	06/22/18 11:10	06/23/18 09:45
240-97593-6	DMW-9S-062218	Water	06/22/18 11:40	06/23/18 09:45
240-97593-7	DMW-11S-062218	Water	06/22/18 12:30	06/23/18 09:45
240-97593-8	MSA-MW-31D-062218	Water	06/22/18 14:51	06/23/18 09:45
240-97762-1	TB-062618	Water	06/26/18 00:00	06/27/18 09:30
240-97762-2	MSA-MW-50D-062618	Water	06/26/18 09:22	06/27/18 09:30
240-97762-3	MSA-MW-50I-062618	Water	06/26/18 11:53	06/27/18 09:30
240-97762-4	MSA-MW-50S-062618	Water	06/26/18 14:05	06/27/18 09:30
240-97762-5	MSA-MW-52S-062618	Water	06/26/18 09:05	06/27/18 09:30
240-97762-6	MSA-MW-52I-062618	Water	06/26/18 10:10	06/27/18 09:30
240-97762-7	MSA-MW-52D-062618	Water	06/26/18 11:20	06/27/18 09:30

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97405-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
552.2	Haloacetic Acids (HAAs) (GC)	EPA	TAL SAV
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
9060A	Organic Carbon, Dissolved (DOC)	SW846	TAL NSH
903.0	Total Alpha Radium (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
552.2	Microextraction	EPA	TAL SAV
7470A	Preparation, Mercury	SW846	TAL CAN
Filtration	Sample Filtration	None	TAL SAC
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-062018	240-97405-1	103	108	103	103
DMW-6I-0620118	240-97405-2	99	104	99	96
DMW-6D-0620118	240-97405-3	99	102	97	94
DMW-6S-0620118	240-97405-4	103	109	106	100
MSA-MW-30D-0620118	240-97405-5	99	105	100	93
TB-062118	240-97513-1	105	108	102	97
DMW-3I-062118	240-97513-2	99	105	101	96
DMW-3D-062118	240-97513-3	103	106	100	97
DMW-3S-062118	240-97513-4	95	101	96	92
TB-062218	240-97593-1	103	104	99	95
MSA-MW-14D-062218	240-97593-2	99	106	104	100
MSA-MW-14I-062218	240-97593-3	98	102	98	93
MSA-MW-31D-062218	240-97593-8	102	102	101	94
TB-062618	240-97762-1	108	106	104	97
MSA-MW-50D-062618	240-97762-2	107	103	103	96
MSA-MW-50I-062618	240-97762-3	109	103	100	93
MSA-MW-50S-062618	240-97762-4	106	99	100	91
MSA-MW-52S-062618	240-97762-5	101	100	100	91
MSA-MW-52S-062618	240-97762-5	106	105	104	96
MSA-MW-52I-062618	240-97762-6	110	106	102	94
MSA-MW-52D-062618	240-97762-7	102	100	99	92
	MB 240-333371/8	96	100	99	99
	MB 240-333562/8	99	102	99	96
	MB 240-333899/9	98	103	97	90
	MB 240-334440/7	108	107	103	96
	MB 240-334645/7	109	106	103	91
	LCS 240-333371/5	96	94	99	95
	LCS 240-333562/5	99	99	100	99
	LCS 240-333899/6	97	101	99	96
	LCS 240-334440/4	99	99	99	95
	LCS 240-334645/4	102	99	101	96
MSA-MW-50D-062618 MS	240-97762-2 MS	104	103	103	92
MSA-MW-50D-062618 MSD	240-97762-2 MSD	109	106	105	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900127.d

Lab ID: LCS 240-333371/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.9	100	73-136	
1,1,1-Trichloroethane	20.0	20.0	100	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.9	94	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.7	99	65-144	
1,1-Dichloroethane	20.0	19.8	99	74-120	
1,1-Dichloroethene	20.0	20.2	101	65-127	
1,1-Dichloropropene	20.0	19.5	98	80-122	
1,2,3-Trichlorobenzene	20.0	20.9	105	31-144	
1,2,3-Trichloropropane	20.0	19.3	96	53-134	
1,2,4-Trichlorobenzene	20.0	21.2	106	34-141	
1,2,4-Trimethylbenzene	20.0	20.2	101	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.7	94	50-130	
1,2-Dichlorobenzene	20.0	20.2	101	80-120	
1,2-Dichloroethane	20.0	18.6	93	68-133	
1,2-Dichloropropane	20.0	18.8	94	78-127	
1,3-Dichlorobenzene	20.0	20.1	100	80-120	
1,3-Dichloropropane	20.0	18.2	91	71-124	
1,4-Dichlorobenzene	20.0	20.0	100	80-120	
2,2-Dichloropropane	20.0	19.6	98	32-178	
2-Butanone (MEK)	40.0	38.9	97	43-149	
2-Chloroethyl vinyl ether	20.0	17.5	88	58-123	
2-Chlorotoluene	20.0	20.1	100	80-120	
2-Hexanone	40.0	36.1	90	28-169	
4-Chlorotoluene	20.0	19.9	100	79-120	
4-Isopropyltoluene	20.0	21.4	107	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	35.4	88	53-144	
Acetone	40.0	42.1	105	35-131	
Benzene	20.0	18.9	95	79-120	
Bromobenzene	20.0	19.3	96	73-120	
Bromoform	20.0	17.7	88	55-145	
Bromomethane	20.0	17.2	86	17-158	
Carbon disulfide	20.0	19.8	99	49-141	
Carbon tetrachloride	20.0	19.1	95	55-171	
Chlorobenzene	20.0	19.2	96	80-120	
Chlorodibromomethane	20.0	18.8	94	64-129	
Chloroethane	20.0	18.3	91	10-149	
Chloroform	20.0	19.7	98	80-120	
Chloromethane	20.0	16.1	81	59-124	
cis-1,2-Dichloroethene	20.0	19.4	97	77-120	
cis-1,3-Dichloropropene	20.0	18.6	93	75-120	
Dibromomethane	20.0	18.4	92	80-120	
Bromochloromethane	20.0	19.4	97	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900127.d

Lab ID: LCS 240-333371/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.2	66	42-141	
Bromodichloromethane	20.0	18.4	92	79-125	
tert-Butyl alcohol	200	178	89	52-136	
Ethylbenzene	20.0	19.5	97	80-120	
Hexachlorobutadiene	20.0	23.3	117	36-146	
Isopropylbenzene	20.0	20.6	103	80-128	
Methyl tert-butyl ether	20.0	19.4	97	73-120	
Methylene Chloride	20.0	18.6	93	64-140	
m-Xylene & p-Xylene	20.0	19.3	97	80-120	
Naphthalene	20.0	20.3	101	31-127	
n-Butylbenzene	20.0	22.1	110	60-137	
N-Propylbenzene	20.0	20.4	102	76-120	
o-Xylene	20.0	19.8	99	80-120	
sec-Butylbenzene	20.0	21.4	107	76-124	
Styrene	20.0	19.2	96	80-121	
Tetrachloroethene	20.0	18.9	95	80-122	
Toluene	20.0	18.8	94	78-120	
trans-1,2-Dichloroethene	20.0	20.0	100	74-124	
trans-1,3-Dichloropropene	20.0	17.6	88	67-120	
Trichloroethene	20.0	18.7	94	76-124	
Trichlorofluoromethane	20.0	19.5	98	27-176	
Vinyl acetate	20.0	21.7	109	42-141	
Vinyl chloride	20.0	17.7	89	65-124	
Xylenes, Total	40.0	39.1	98	80-120	
tert-Butylbenzene	20.0	20.6	103	79-120	
1,2-Dibromoethane	20.0	18.5	92	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900156.d

Lab ID: LCS 240-333562/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.7	98	73-136	
1,1,1-Trichloroethane	20.0	19.7	99	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.7	93	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.4	97	65-144	
1,1-Dichloroethane	20.0	19.7	99	74-120	
1,1-Dichloroethene	20.0	19.7	98	65-127	
1,1-Dichloropropene	20.0	19.6	98	80-122	
1,2,3-Trichlorobenzene	20.0	20.2	101	31-144	
1,2,3-Trichloropropane	20.0	19.2	96	53-134	
1,2,4-Trichlorobenzene	20.0	20.6	103	34-141	
1,2,4-Trimethylbenzene	20.0	19.7	98	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.3	92	50-130	
1,2-Dichlorobenzene	20.0	20.0	100	80-120	
1,2-Dichloroethane	20.0	18.7	94	68-133	
1,2-Dichloropropane	20.0	18.6	93	78-127	
1,3-Dichlorobenzene	20.0	19.6	98	80-120	
1,3-Dichloropropane	20.0	17.9	90	71-124	
1,4-Dichlorobenzene	20.0	19.6	98	80-120	
2,2-Dichloropropane	20.0	18.2	91	32-178	
2-Butanone (MEK)	40.0	38.0	95	43-149	
2-Chloroethyl vinyl ether	20.0	17.4	87	58-123	
2-Chlorotoluene	20.0	19.8	99	80-120	
2-Hexanone	40.0	36.7	92	28-169	
4-Chlorotoluene	20.0	19.8	99	79-120	
4-Isopropyltoluene	20.0	20.9	105	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	35.4	89	53-144	
Acetone	40.0	41.4	104	35-131	
Benzene	20.0	19.1	96	79-120	
Bromobenzene	20.0	18.9	95	73-120	
Bromoform	20.0	18.1	90	55-145	
Bromomethane	20.0	17.0	85	17-158	
Carbon disulfide	20.0	19.4	97	49-141	
Carbon tetrachloride	20.0	18.9	95	55-171	
Chlorobenzene	20.0	19.1	95	80-120	
Chlorodibromomethane	20.0	18.9	94	64-129	
Chloroethane	20.0	17.4	87	10-149	
Chloroform	20.0	19.6	98	80-120	
Chloromethane	20.0	15.7	78	59-124	
cis-1,2-Dichloroethene	20.0	19.4	97	77-120	
cis-1,3-Dichloropropene	20.0	18.4	92	75-120	
Dibromomethane	20.0	18.8	94	80-120	
Bromochloromethane	20.0	19.5	97	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900156.d

Lab ID: LCS 240-333562/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	12.0	60	42-141	
Bromodichloromethane	20.0	18.5	93	79-125	
tert-Butyl alcohol	200	153	76	52-136	
Ethylbenzene	20.0	19.4	97	80-120	
Hexachlorobutadiene	20.0	21.8	109	36-146	
Isopropylbenzene	20.0	20.3	102	80-128	
Methyl tert-butyl ether	20.0	18.6	93	73-120	
Methylene Chloride	20.0	18.7	93	64-140	
m-Xylene & p-Xylene	20.0	19.3	97	80-120	
Naphthalene	20.0	19.7	99	31-127	
n-Butylbenzene	20.0	21.4	107	60-137	
N-Propylbenzene	20.0	19.7	98	76-120	
o-Xylene	20.0	19.8	99	80-120	
sec-Butylbenzene	20.0	20.7	104	76-124	
Styrene	20.0	19.2	96	80-121	
Tetrachloroethene	20.0	18.6	93	80-122	
Toluene	20.0	18.7	94	78-120	
trans-1,2-Dichloroethene	20.0	19.8	99	74-124	
trans-1,3-Dichloropropene	20.0	17.7	88	67-120	
Trichloroethene	20.0	18.7	93	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	21.8	109	42-141	
Vinyl chloride	20.0	17.0	85	65-124	
Xylenes, Total	40.0	39.1	98	80-120	
tert-Butylbenzene	20.0	20.0	100	79-120	
1,2-Dibromoethane	20.0	18.7	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900245.d

Lab ID: LCS 240-333899/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	17.5	88	73-136	
1,1,1-Trichloroethane	20.0	17.0	85	64-147	
1,1,2,2-Tetrachloroethane	20.0	17.7	88	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	15.5	77	65-144	
1,1-Dichloroethane	20.0	17.1	85	74-120	
1,1-Dichloroethene	20.0	16.7	84	65-127	
1,1-Dichloropropene	20.0	17.2	86	80-122	
1,2,3-Trichlorobenzene	20.0	17.4	87	31-144	
1,2,3-Trichloropropane	20.0	18.0	90	53-134	
1,2,4-Trichlorobenzene	20.0	17.4	87	34-141	
1,2,4-Trimethylbenzene	20.0	17.5	87	80-120	
1,2-Dibromo-3-Chloropropane	20.0	16.2	81	50-130	
1,2-Dichlorobenzene	20.0	18.0	90	80-120	
1,2-Dichloroethane	20.0	17.5	88	68-133	
1,2-Dichloropropane	20.0	17.5	87	78-127	
1,3-Dichlorobenzene	20.0	17.9	89	80-120	
1,3-Dichloropropane	20.0	16.9	85	71-124	
1,4-Dichlorobenzene	20.0	17.9	90	80-120	
2,2-Dichloropropane	20.0	16.2	81	32-178	
2-Butanone (MEK)	40.0	42.2	105	43-149	
2-Chloroethyl vinyl ether	20.0	17.2	86	58-123	
2-Chlorotoluene	20.0	18.0	90	80-120	
2-Hexanone	40.0	35.6	89	28-169	
4-Chlorotoluene	20.0	18.0	90	79-120	
4-Isopropyltoluene	20.0	18.2	91	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	34.1	85	53-144	
Acetone	40.0	44.2	111	35-131	
Benzene	20.0	17.5	87	79-120	
Bromobenzene	20.0	17.2	86	73-120	
Bromoform	20.0	16.1	81	55-145	
Bromomethane	20.0	15.9	79	17-158	
Carbon disulfide	20.0	16.6	83	49-141	
Carbon tetrachloride	20.0	15.9	80	55-171	
Chlorobenzene	20.0	17.8	89	80-120	
Chlorodibromomethane	20.0	17.0	85	64-129	
Chloroethane	20.0	16.3	82	10-149	
Chloroform	20.0	17.4	87	80-120	
Chloromethane	20.0	15.2	76	59-124	
cis-1,2-Dichloroethene	20.0	17.2	86	77-120	
cis-1,3-Dichloropropene	20.0	17.1	85	75-120	
Dibromomethane	20.0	17.3	86	80-120	
Bromochloromethane	20.0	18.4	92	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900245.d

Lab ID: LCS 240-333899/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.2	66	42-141	
Bromodichloromethane	20.0	16.5	82	79-125	
tert-Butyl alcohol	200	195	97	52-136	
Ethylbenzene	20.0	17.7	89	80-120	
Hexachlorobutadiene	20.0	17.7	88	36-146	
Isopropylbenzene	20.0	18.1	91	80-128	
Methyl tert-butyl ether	20.0	17.2	86	73-120	
Methylene Chloride	20.0	16.5	83	64-140	
m-Xylene & p-Xylene	20.0	17.7	88	80-120	
Naphthalene	20.0	17.2	86	31-127	
n-Butylbenzene	20.0	18.5	93	60-137	
N-Propylbenzene	20.0	17.6	88	76-120	
o-Xylene	20.0	17.8	89	80-120	
sec-Butylbenzene	20.0	18.2	91	76-124	
Styrene	20.0	17.6	88	80-121	
Tetrachloroethene	20.0	16.9	84	80-122	
Toluene	20.0	17.2	86	78-120	
trans-1,2-Dichloroethene	20.0	17.6	88	74-124	
trans-1,3-Dichloropropene	20.0	15.8	79	67-120	
Trichloroethene	20.0	16.9	85	76-124	
Trichlorofluoromethane	20.0	16.5	83	27-176	
Vinyl acetate	20.0	20.2	101	42-141	
Vinyl chloride	20.0	15.7	79	65-124	
Xylenes, Total	40.0	35.5	89	80-120	
tert-Butylbenzene	20.0	17.9	89	79-120	
1,2-Dibromoethane	20.0	17.0	85	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900338.d

Lab ID: LCS 240-334440/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.0	95	73-136	
1,1,1-Trichloroethane	20.0	18.6	93	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.5	93	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	18.5	92	65-144	
1,1-Dichloroethane	20.0	18.5	92	74-120	
1,1-Dichloroethene	20.0	18.6	93	65-127	
1,1-Dichloropropene	20.0	18.4	92	80-122	
1,2,3-Trichlorobenzene	20.0	20.4	102	31-144	
1,2,3-Trichloropropane	20.0	18.7	94	53-134	
1,2,4-Trichlorobenzene	20.0	20.3	101	34-141	
1,2,4-Trimethylbenzene	20.0	19.2	96	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.9	90	50-130	
1,2-Dichlorobenzene	20.0	19.8	99	80-120	
1,2-Dichloroethane	20.0	18.3	92	68-133	
1,2-Dichloropropane	20.0	18.7	93	78-127	
1,3-Dichlorobenzene	20.0	19.5	97	80-120	
1,3-Dichloropropane	20.0	18.1	91	71-124	
1,4-Dichlorobenzene	20.0	19.7	98	80-120	
2,2-Dichloropropane	20.0	18.4	92	32-178	
2-Butanone (MEK)	40.0	41.5	104	43-149	
2-Chloroethyl vinyl ether	20.0	16.9	84	58-123	
2-Chlorotoluene	20.0	19.7	99	80-120	
2-Hexanone	40.0	34.5	86	28-169	
4-Chlorotoluene	20.0	19.6	98	79-120	
4-Isopropyltoluene	20.0	20.7	103	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	34.2	85	53-144	
Acetone	40.0	46.8	117	35-131	
Benzene	20.0	18.8	94	79-120	
Bromobenzene	20.0	18.5	93	73-120	
Bromoform	20.0	17.6	88	55-145	
Bromomethane	20.0	17.2	86	17-158	
Carbon disulfide	20.0	18.1	91	49-141	
Carbon tetrachloride	20.0	17.6	88	55-171	
Chlorobenzene	20.0	19.2	96	80-120	
Chlorodibromomethane	20.0	18.3	92	64-129	
Chloroethane	20.0	17.6	88	10-149	
Chloroform	20.0	18.8	94	80-120	
Chloromethane	20.0	16.2	81	59-124	
cis-1,2-Dichloroethene	20.0	19.3	96	77-120	
cis-1,3-Dichloropropene	20.0	17.8	89	75-120	
Dibromomethane	20.0	18.2	91	80-120	
Bromochloromethane	20.0	19.6	98	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900338.d

Lab ID: LCS 240-334440/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.8	69	42-141	
Bromodichloromethane	20.0	17.9	89	79-125	
tert-Butyl alcohol	200	273	136	52-136	
Ethylbenzene	20.0	19.4	97	80-120	
Hexachlorobutadiene	20.0	20.4	102	36-146	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl tert-butyl ether	20.0	19.3	96	73-120	
Methylene Chloride	20.0	17.6	88	64-140	
m-Xylene & p-Xylene	20.0	19.2	96	80-120	
Naphthalene	20.0	19.5	98	31-127	
n-Butylbenzene	20.0	20.8	104	60-137	
N-Propylbenzene	20.0	19.4	97	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	20.2	101	76-124	
Styrene	20.0	19.0	95	80-121	
Tetrachloroethene	20.0	18.6	93	80-122	
Toluene	20.0	18.4	92	78-120	
trans-1,2-Dichloroethene	20.0	18.9	94	74-124	
trans-1,3-Dichloropropene	20.0	17.0	85	67-120	
Trichloroethene	20.0	18.3	92	76-124	
Trichlorofluoromethane	20.0	18.6	93	27-176	
Vinyl acetate	20.0	21.9	110	42-141	
Vinyl chloride	20.0	17.2	86	65-124	
Xylenes, Total	40.0	38.8	97	80-120	
tert-Butylbenzene	20.0	20.0	100	79-120	
1,2-Dibromoethane	20.0	18.2	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900366.d

Lab ID: LCS 240-334645/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.1	100	73-136	
1,1,1-Trichloroethane	20.0	19.2	96	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.7	94	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.3	96	65-144	
1,1-Dichloroethane	20.0	19.2	96	74-120	
1,1-Dichloroethene	20.0	19.6	98	65-127	
1,1-Dichloropropene	20.0	18.9	94	80-122	
1,2,3-Trichlorobenzene	20.0	21.0	105	31-144	
1,2,3-Trichloropropane	20.0	17.6	88	53-134	
1,2,4-Trichlorobenzene	20.0	21.0	105	34-141	
1,2,4-Trimethylbenzene	20.0	19.7	99	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.5	88	50-130	
1,2-Dichlorobenzene	20.0	20.1	101	80-120	
1,2-Dichloroethane	20.0	18.8	94	68-133	
1,2-Dichloropropane	20.0	18.2	91	78-127	
1,3-Dichlorobenzene	20.0	19.4	97	80-120	
1,3-Dichloropropane	20.0	17.5	87	71-124	
1,4-Dichlorobenzene	20.0	19.1	96	80-120	
2,2-Dichloropropane	20.0	18.9	95	32-178	
2-Butanone (MEK)	40.0	40.7	102	43-149	
2-Chloroethyl vinyl ether	20.0	15.8	79	58-123	
2-Chlorotoluene	20.0	19.6	98	80-120	
2-Hexanone	40.0	32.8	82	28-169	
4-Chlorotoluene	20.0	18.9	95	79-120	
4-Isopropyltoluene	20.0	21.1	106	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	32.4	81	53-144	
Acetone	40.0	50.7	127	35-131	
Benzene	20.0	19.0	95	79-120	
Bromobenzene	20.0	18.1	90	73-120	
Bromoform	20.0	16.9	84	55-145	
Bromomethane	20.0	17.4	87	17-158	
Carbon disulfide	20.0	18.8	94	49-141	
Carbon tetrachloride	20.0	18.5	93	55-171	
Chlorobenzene	20.0	19.4	97	80-120	
Chlorodibromomethane	20.0	18.1	90	64-129	
Chloroethane	20.0	17.7	88	10-149	
Chloroform	20.0	19.6	98	80-120	
Chloromethane	20.0	15.6	78	59-124	
cis-1,2-Dichloroethene	20.0	19.7	98	77-120	
cis-1,3-Dichloropropene	20.0	17.3	87	75-120	
Dibromomethane	20.0	18.5	93	80-120	
Bromochloromethane	20.0	20.2	101	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900366.d

Lab ID: LCS 240-334645/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	12.9	65	42-141	
Bromodichloromethane	20.0	17.8	89	79-125	
tert-Butyl alcohol	200	299	150	52-136	*
Ethylbenzene	20.0	19.7	98	80-120	
Hexachlorobutadiene	20.0	21.2	106	36-146	
Isopropylbenzene	20.0	21.0	105	80-128	
Methyl tert-butyl ether	20.0	19.5	98	73-120	
Methylene Chloride	20.0	18.4	92	64-140	
m-Xylene & p-Xylene	20.0	19.7	99	80-120	
Naphthalene	20.0	20.1	100	31-127	
n-Butylbenzene	20.0	21.2	106	60-137	
N-Propylbenzene	20.0	19.3	97	76-120	
o-Xylene	20.0	20.6	103	80-120	
sec-Butylbenzene	20.0	20.9	104	76-124	
Styrene	20.0	19.0	95	80-121	
Tetrachloroethene	20.0	19.1	95	80-122	
Toluene	20.0	19.1	96	78-120	
trans-1,2-Dichloroethene	20.0	19.5	98	74-124	
trans-1,3-Dichloropropene	20.0	16.8	84	67-120	
Trichloroethene	20.0	18.9	94	76-124	
Trichlorofluoromethane	20.0	18.7	93	27-176	
Vinyl acetate	20.0	21.7	108	42-141	
Vinyl chloride	20.0	16.8	84	65-124	
Xylenes, Total	40.0	40.3	101	80-120	
tert-Butylbenzene	20.0	20.1	100	79-120	
1,2-Dibromoethane	20.0	17.5	87	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900350.d

Lab ID: 240-97762-2 MS Client ID: MSA-MW-50D-062618 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	0.14 U	20.8	104	67-142	
1,1,1-Trichloroethane	20.0	0.24 U	19.4	97	57-156	
1,1,2,2-Tetrachloroethane	20.0	0.13 U	17.9	90	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	0.41 U	18.9	95	58-137	
1,1-Dichloroethane	20.0	0.17 U	19.3	97	69-122	
1,1-Dichloroethene	20.0	0.19 U	19.4	97	62-127	
1,1-Dichloropropene	20.0	0.14 U	19.0	95	55-136	
1,2,3-Trichlorobenzene	20.0	0.54 U	22.1	110	40-139	
1,2,3-Trichloropropane	20.0	0.24 U	17.7	89	41-152	
1,2,4-Trichlorobenzene	20.0	0.26 U	22.3	112	26-138	
1,2,4-Trimethylbenzene	20.0	0.070 U	19.6	98	64-120	
1,2-Dibromo-3-Chloropropane	20.0	0.91 U	17.0	85	48-130	
1,2-Dichlorobenzene	20.0	0.15 U	20.0	100	70-120	
1,2-Dichloroethane	20.0	0.37 J	18.6	91	64-138	
1,2-Dichloropropane	20.0	0.15 U	17.9	89	72-131	
1,3-Dichlorobenzene	20.0	0.15 U	19.2	96	71-120	
1,3-Dichloropropane	20.0	0.21 U	16.6	83	58-137	
1,4-Dichlorobenzene	20.0	0.16 U	18.9	94	72-120	
2,2-Dichloropropane	20.0	0.31 U	18.7	93	34-153	
2-Butanone (MEK)	40.0	1.2 U	37.9	95	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0.26 U	0	10-120	F1
2-Chlorotoluene	20.0	0.15 U	19.9	100	52-134	
2-Hexanone	40.0	0.54 U	29.1	73	21-184	
4-Chlorotoluene	20.0	0.090 U	18.9	95	52-133	
4-Isopropyltoluene	20.0	0.13 U	21.0	105	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	0.42 U	29.6	74	53-147	
Acetone	40.0	5.4 U	44.1	110	19-133	
Benzene	20.0	0.13 U	19.0	95	69-127	
Bromobenzene	20.0	0.12 U	18.0	90	59-131	
Bromoform	20.0	0.76 U	15.1	76	61-135	
Bromomethane	20.0	0.42 U	17.4	87	10-148	
Carbon disulfide	20.0	0.28 U	18.4	92	46-143	
Carbon tetrachloride	20.0	0.26 U	18.1	90	53-175	
Chlorobenzene	20.0	0.28 J	18.8	93	76-120	
Chlorodibromomethane	20.0	0.39 U	17.4	87	62-131	
Chloroethane	20.0	0.83 U	17.6	88	10-141	
Chloroform	20.0	0.13 U	19.9	100	74-125	
Chloromethane	20.0	0.20 U	16.2	81	34-127	
cis-1,2-Dichloroethene	20.0	16	36.4	100	69-127	
cis-1,3-Dichloropropene	20.0	0.61 U	15.8	79	68-120	
Dibromomethane	20.0	0.090 U	17.8	89	73-120	
Bromochloromethane	20.0	0.14 U	20.3	102	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900350.d

Lab ID: 240-97762-2 MS Client ID: MSA-MW-50D-062618 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	0.35 U	13.9	70	45-130	
Bromodichloromethane	20.0	0.17 U	17.0	85	75-128	
tert-Butyl alcohol	200	1.7 U	246	123	70-130	
Ethylbenzene	20.0	0.11 U	19.4	97	72-121	
Hexachlorobutadiene	20.0	0.83 U	22.5	112	30-134	
Isopropylbenzene	20.0	0.090 U	21.1	105	70-132	
Methyl tert-butyl ether	20.0	0.070 U	19.3	96	67-125	
Methylene Chloride	20.0	2.6 U	18.1	90	52-137	
m-Xylene & p-Xylene	20.0	0.080 U	19.0	95	70-121	
Naphthalene	20.0	0.32 U	20.5	102	28-150	
n-Butylbenzene	20.0	0.14 U	21.6	108	38-133	
N-Propylbenzene	20.0	0.15 U	19.5	98	50-134	
o-Xylene	20.0	0.090 U	20.2	101	71-125	
sec-Butylbenzene	20.0	0.13 U	20.9	105	43-133	
Styrene	20.0	0.10 U	18.4	92	74-125	
Tetrachloroethene	20.0	0.15 U	19.1	95	69-126	
Toluene	20.0	0.14 U	19.0	95	69-125	
trans-1,2-Dichloroethene	20.0	0.54 J	20.3	99	66-131	
trans-1,3-Dichloropropene	20.0	0.67 U	15.5	78	59-120	
Trichloroethene	20.0	29	47.0	92	68-129	
Trichlorofluoromethane	20.0	0.45 U	19.1	96	28-172	
Vinyl acetate	20.0	0.19 U	20.5	103	51-134	
Vinyl chloride	20.0	3.2	20.4	86	55-123	
Xylenes, Total	40.0	0.15 U	39.2	98	71-122	
tert-Butylbenzene	20.0	0.14 U	20.4	102	48-131	
1,2-Dibromoethane	20.0	0.12 U	16.6	83	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900351.d

Lab ID: 240-97762-2 MSD Client ID: MSA-MW-50D-062618 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.7	104	0	18	67-142	
1,1,1-Trichloroethane	20.0	18.8	94	3	13	57-156	
1,1,2,2-Tetrachloroethane	20.0	17.5	88	2	17	51-123	
1,1,2-Trichlorotrifluoroethane	20.0	19.1	95	1	35	58-137	
1,1-Dichloroethane	20.0	19.1	95	1	11	69-122	
1,1-Dichloroethene	20.0	19.4	97	0	14	62-127	
1,1-Dichloropropene	20.0	18.9	94	0	35	55-136	
1,2,3-Trichlorobenzene	20.0	23.3	117	6	35	40-139	
1,2,3-Trichloropropane	20.0	17.2	86	3	12	41-152	
1,2,4-Trichlorobenzene	20.0	22.6	113	1	35	26-138	
1,2,4-Trimethylbenzene	20.0	20.0	100	2	22	64-120	
1,2-Dibromo-3-Chloropropane	20.0	16.4	82	3	31	48-130	
1,2-Dichlorobenzene	20.0	20.1	101	1	19	70-120	
1,2-Dichloroethane	20.0	18.2	89	2	11	64-138	
1,2-Dichloropropane	20.0	17.2	86	4	12	72-131	
1,3-Dichlorobenzene	20.0	18.9	95	1	18	71-120	
1,3-Dichloropropane	20.0	15.8	79	5	35	58-137	
1,4-Dichlorobenzene	20.0	18.8	94	0	17	72-120	
2,2-Dichloropropane	20.0	19.5	97	4	35	34-153	
2-Butanone (MEK)	40.0	35.6	89	6	23	34-153	
2-Chloroethyl vinyl ether	20.0	0.26 U	0	NC	35	10-120	F1
2-Chlorotoluene	20.0	19.5	98	2	35	52-134	
2-Hexanone	40.0	27.9	70	4	12	21-184	
4-Chlorotoluene	20.0	18.4	92	3	35	52-133	
4-Isopropyltoluene	20.0	21.1	106	0	22	70-120	
4-Methyl-2-pentanone (MIBK)	40.0	28.1	70	5	16	53-147	
Acetone	40.0	45.9	115	4	35	19-133	
Benzene	20.0	18.5	92	3	10	69-127	
Bromobenzene	20.0	17.4	87	3	35	59-131	
Bromoform	20.0	15.0	75	1	13	61-135	
Bromomethane	20.0	17.3	86	1	35	10-148	
Carbon disulfide	20.0	18.8	94	2	18	46-143	
Carbon tetrachloride	20.0	18.5	92	2	17	53-175	
Chlorobenzene	20.0	18.6	92	1	12	76-120	
Chlorodibromomethane	20.0	16.9	85	3	15	62-131	
Chloroethane	20.0	17.7	88	0	35	10-141	
Chloroform	20.0	19.6	98	2	11	74-125	
Chloromethane	20.0	15.6	78	4	25	34-127	
cis-1,2-Dichloroethene	20.0	36.3	99	0	11	69-127	
cis-1,3-Dichloropropene	20.0	15.0	75	6	13	68-120	
Dibromomethane	20.0	17.9	89	1	16	73-120	
Bromochloromethane	20.0	20.0	100	2	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900351.d

Lab ID: 240-97762-2 MSD Client ID: MSA-MW-50D-062618 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	14.4	72	4	34	45-130	
Bromodichloromethane	20.0	16.9	85	0	13	75-128	
tert-Butyl alcohol	200	295	148	18	35	70-130	F1
Ethylbenzene	20.0	19.1	95	2	15	72-121	
Hexachlorobutadiene	20.0	22.5	113	0	35	30-134	
Isopropylbenzene	20.0	21.0	105	0	16	70-132	
Methyl tert-butyl ether	20.0	19.0	95	1	12	67-125	
Methylene Chloride	20.0	17.9	90	1	12	52-137	
m-Xylene & p-Xylene	20.0	18.7	93	2	15	70-121	
Naphthalene	20.0	20.9	105	2	35	28-150	
n-Butylbenzene	20.0	21.6	108	0	35	38-133	
N-Propylbenzene	20.0	19.3	97	1	35	50-134	
o-Xylene	20.0	20.1	101	1	15	71-125	
sec-Butylbenzene	20.0	20.8	104	0	35	43-133	
Styrene	20.0	18.2	91	1	14	74-125	
Tetrachloroethene	20.0	18.8	94	1	18	69-126	
Toluene	20.0	18.4	92	3	14	69-125	
trans-1,2-Dichloroethene	20.0	20.2	98	1	11	66-131	
trans-1,3-Dichloropropene	20.0	15.0	75	4	14	59-120	
Trichloroethene	20.0	47.4	94	1	12	68-129	
Trichlorofluoromethane	20.0	19.3	96	1	26	28-172	
Vinyl acetate	20.0	19.7	98	4	12	51-134	
Vinyl chloride	20.0	20.4	86	0	12	55-123	
Xylenes, Total	40.0	38.8	97	1	14	71-122	
tert-Butylbenzene	20.0	20.4	102	0	35	48-131	
1,2-Dibromoethane	20.0	16.5	82	1	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: U1900130.d Lab Sample ID: MB 240-333371/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 06/25/2018 21:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333371/5	U1900127.d	06/25/2018 20:11
TB-062018	240-97405-1	U1900143.d	06/26/2018 02:07
DMW-6I-0620118	240-97405-2	U1900144.d	06/26/2018 02:30
DMW-6D-0620118	240-97405-3	U1900145.d	06/26/2018 02:52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333371/8

Matrix: Water | Lab File ID: U1900130.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/25/2018 21:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333371/8

Matrix: Water | Lab File ID: U1900130.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/25/2018 21:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-333371/8

Matrix: Water Lab File ID: U1900130.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2018 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333371 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	99		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333371/8

Matrix: Water | Lab File ID: U1900130.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/25/2018 21:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333371 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.22

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		
109-99-9	Tetrahydrofuran	4.88	1.22	J	74%

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-333371/8

Matrix: Water Lab File ID: U1900130.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/25/2018 21:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333371 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: U1900159.d Lab Sample ID: MB 240-333562/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 06/26/2018 18:18

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333562/5	U1900156.d	06/26/2018 17:11
DMW-6S-0620118	240-97405-4	U1900160.d	06/26/2018 18:41
MSA-MW-30D-0620118	240-97405-5	U1900161.d	06/26/2018 19:03

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333562/8

Matrix: Water | Lab File ID: U1900159.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333562/8

Matrix: Water | Lab File ID: U1900159.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-333562/8

Matrix: Water Lab File ID: U1900159.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/26/2018 18:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333562 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333562/8

Matrix: Water | Lab File ID: U1900159.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.24

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		
109-99-9	Tetrahydrofuran	4.90	3.24	J	86%

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333562/8

Matrix: Water | Lab File ID: U1900159.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 18:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333562 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: U1900248.d Lab Sample ID: MB 240-333899/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 06/28/2018 11:38

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333899/6	U1900245.d	06/28/2018 10:31
TB-062118	240-97513-1	U1900262.d	06/28/2018 17:11
DMW-3I-062118	240-97513-2	U1900263.d	06/28/2018 17:34
DMW-3D-062118	240-97513-3	U1900264.d	06/28/2018 17:57
DMW-3S-062118	240-97513-4	U1900265.d	06/28/2018 18:19
TB-062218	240-97593-1	U1900268.d	06/28/2018 19:25
MSA-MW-14D-062218	240-97593-2	U1900269.d	06/28/2018 19:47
MSA-MW-14I-062218	240-97593-3	U1900270.d	06/28/2018 20:09
MSA-MW-31D-062218	240-97593-8	U1900271.d	06/28/2018 20:31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333899/9

Matrix: Water | Lab File ID: U1900248.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 11:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333899/9

Matrix: Water | Lab File ID: U1900248.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 11:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-333899/9

Matrix: Water Lab File ID: U1900248.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2018 11:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 333899 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333899/9

Matrix: Water | Lab File ID: U1900248.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 11:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 3.3

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		
109-99-9	Tetrahydrofuran	4.88	3.30	J	83%

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333899/9

Matrix: Water | Lab File ID: U1900248.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2018 11:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333899 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: U1900341.d Lab Sample ID: MB 240-334440/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/02/2018 17:11

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334440/4	U1900338.d	07/02/2018 16:04
TB-062618	240-97762-1	U1900348.d	07/02/2018 19:47
MSA-MW-50D-062618	240-97762-2	U1900349.d	07/02/2018 20:09
MSA-MW-50D-062618 MS	240-97762-2 MS	U1900350.d	07/02/2018 20:32
MSA-MW-50D-062618 MSD	240-97762-2 MSD	U1900351.d	07/02/2018 20:54
MSA-MW-50I-062618	240-97762-3	U1900353.d	07/02/2018 21:39
MSA-MW-50S-062618	240-97762-4	U1900354.d	07/02/2018 22:01
MSA-MW-52S-062618	240-97762-5	U1900355.d	07/02/2018 22:24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334440/7

Matrix: Water | Lab File ID: U1900341.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334440/7

Matrix: Water | Lab File ID: U1900341.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334440/7

Matrix: Water Lab File ID: U1900341.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	108		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334440/7

Matrix: Water Lab File ID: U1900341.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334440/7

Matrix: Water | Lab File ID: U1900341.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: U1900369.d Lab Sample ID: MB 240-334645/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/03/2018 17:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334645/4	U1900366.d	07/03/2018 15:58
MSA-MW-52S-062618 -RE	240-97762-5	U1900373.d	07/03/2018 18:35
MSA-MW-52I-062618	240-97762-6	U1900374.d	07/03/2018 18:57
MSA-MW-52D-062618	240-97762-7	U1900375.d	07/03/2018 19:19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334645/7

Matrix: Water Lab File ID: U1900369.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	109		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334645/7

Matrix: Water Lab File ID: U1900369.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb004.d BFB Injection Date: 06/21/2018

Instrument ID: A3UX19 BFB Injection Time: 18:54

Analysis Batch No.: 332816

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	84.6	
175	5.0 - 9.0 % of mass 174	6.0	(7.0) 1
176	95.0 - 101.0 % of mass 174	83.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-332816/8	U1900002.d	06/21/2018	19:43
	STD8260 240-332816/9	U1900003.d	06/21/2018	20:05
	STD8260 240-332816/10	U1900004.d	06/21/2018	20:28
	ICIS 240-332816/11	U1900005.d	06/21/2018	20:50
	STD8260 240-332816/12	U1900006.d	06/21/2018	21:12
	STD8260 240-332816/13	U1900007.d	06/21/2018	21:35
	STD8260 240-332816/14	U1900008.d	06/21/2018	21:57
	ICV 240-332816/15	U1900009.d	06/21/2018	22:19
	STDA9 240-332816/18	U1900012.d	06/21/2018	23:25
	STDA9 240-332816/19	U1900013.d	06/21/2018	23:47
	STDA9 240-332816/20	U1900014.d	06/22/2018	00:09
	STDA9 240-332816/21	U1900015.d	06/22/2018	00:31
	STDA9 240-332816/22	U1900016.d	06/22/2018	00:54
	STDA9 240-332816/23	U1900017.d	06/22/2018	01:16
	ICV 240-332816/24	U1900018.d	06/22/2018	01:38

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4528 0.4563	0.3722 0.4281	0.4215	0.4480	0.4452	Ave		0.4320			0.1000	6.8		20.0			
Chloromethane	0.4381 0.3660	0.4105 0.3450	0.3695	0.3628	0.3568	Ave		0.3784			0.1000	8.8		20.0			
Butadiene	0.4750 0.3567	0.3880 0.3448	0.3579	0.3689	0.3585	Ave		0.3786				11.8		20.0			
Vinyl chloride	0.4034 0.3618	0.3564 0.3455	0.3611	0.3673	0.3542	Ave		0.3642			0.1000	5.1		20.0			
Bromomethane	0.3189 0.2394	0.3014 0.2331	0.2511	0.2459	0.2378	Ave		0.2611			0.0500	13.2		20.0			
Chloroethane	0.2653 0.2004	0.2358 0.1929	0.2041	0.2136	0.2028	Ave		0.2164			0.0500	11.8		20.0			
Dichlorofluoromethane	0.6221 0.5010	0.6602 0.4840	0.5300	0.5324	0.5085	Ave		0.5483				12.1		20.0			
Trichlorofluoromethane	0.5400 0.5206	0.5015 0.4974	0.5250	0.5387	0.5229	Ave		0.5209			0.1000	3.2		20.0			
Ethyl ether	0.2629 0.2207	0.2684 0.2121	0.2298	0.2189	0.2112	Ave		0.2320				10.3		20.0			
Acrolein	0.0721 0.0578	0.0624 0.0581	0.0585	0.0528	0.0520	Ave		0.0591				11.4		20.0			
1,1-Dichloroethene	0.4256 0.4465	0.4760 0.4326	0.4467	0.4529	0.4382	Ave		0.4455			0.1000	3.7		20.0			
1,1,2-Trichlorotrifluoroethane	0.2889 0.3017	0.3074 0.2950	0.3118	0.3034	0.2988	Ave		0.3010			0.0500	2.5		20.0			
Acetone	+++++ 0.0899	0.2207 0.0879	0.1133	0.1043	0.0790	Lin1	0.2980	0.0859			0.0100	14.2			0.9930		0.9900
Iodomethane	0.4452 0.4837	0.4990 0.4707	0.4790	0.4849	0.4733	Ave		0.4765				3.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.8647 0.8494	0.8929 0.8377	0.8695	0.8592	0.8489	Ave		0.8603			0.1000	2.1		20.0			
3-Chloro-1-propene	0.5071 0.4812	0.5655 0.4649	0.4848	0.4872	0.4656	Ave		0.4938				7.0		20.0			
Methyl acetate	0.3518 0.2687	0.3253 0.2596	0.2833	0.2870	0.2351	Ave		0.2872			0.1000	13.8		20.0			
Methylene Chloride	+++++ 0.3551	0.5087 0.3460	0.3722	0.3661	0.3432	Ave		0.3819			0.1000	16.5		20.0			
tert-Butyl alcohol	0.0392 0.0274	0.0423 0.0286	0.0310	0.0293	0.0297	Ave		0.0325				17.8		20.0			
Acrylonitrile	0.1247 0.1209	0.1290 0.1185	0.1311	0.1328	0.1040	Ave		0.1230				8.0		20.0			
trans-1,2-Dichloroethene	0.4036 0.4154	0.4336 0.4027	0.4217	0.4177	0.4018	Ave		0.4138			0.1000	2.9		20.0			
Methyl tert-butyl ether	0.7657 0.8810	0.9082 0.7963	0.8549	0.8636	0.8011	Ave		0.8387			0.1000	6.2		20.0			
Hexane	0.4557 0.4598	0.4625 0.4587	0.4712	0.4712	0.4606	Ave		0.4628				1.3		20.0			
1,1-Dichloroethane	0.4989 0.5120	0.5381 0.4948	0.5117	0.5117	0.4871	Ave		0.5077			0.2000	3.3		20.0			
Vinyl acetate	0.5506 0.5173	0.5422 0.5259	0.5306	0.5138	0.4980	Ave		0.5255				3.4		20.0			
cis-1,2-Dichloroethene	0.3270 0.3229	0.3422 0.3123	0.3127	0.3215	0.3026	Ave		0.3202			0.1000	4.0		20.0			
2,2-Dichloropropane	0.3823 0.3748	0.4230 0.3372	0.4161	0.3857	0.3802	Ave		0.3856				7.4		20.0			
2-Butanone (MEK)	0.0461 0.0435	0.0433 0.0460	0.0485	0.0460	0.0410	Ave		0.0449			0.0100	5.5		20.0			
Bromochloromethane	0.2192 0.2379	0.2561 0.2248	0.2365	0.2369	0.2110	Ave		0.2318				6.4		20.0			
Tetrahydrofuran	0.1507 0.1174	0.1375 0.1216	0.1292	0.1259	0.1092	Ave		0.1273				10.7		20.0			
Chloroform	0.5386 0.5187	0.5382 0.5008	0.5083	0.5130	0.4927	Ave		0.5158			0.2000	3.4		20.0			
1,1,1-Trichloroethane	0.4670 0.4932	0.4858 0.4809	0.5013	0.4923	0.4864	Ave		0.4867			0.1000	2.2		20.0			
Cyclohexane	0.4175 0.4533	0.4347 0.4489	0.4615	0.4613	0.4524	Ave		0.4471			0.1000	3.5		20.0			
1,1-Dichloropropene	0.3885 0.4180	0.4226 0.4099	0.4267	0.4123	0.4096	Ave		0.4125				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.7495 0.4580	0.5040 0.4480	0.4651	0.4534	0.4501	Lin1	0.1188	0.4496			0.1000	8.9			1.0000		0.9900
Isobutyl alcohol	0.0100 0.0121	0.0114 0.0120	0.0144	0.0138	0.0110	Ave		0.0121				12.7		20.0			
Benzene	1.1231 1.0967	1.0917 1.0701	1.1337	1.0960	1.0693	Ave		1.0972			0.5000	2.2		20.0			
1,2-Dichloroethane	0.4131 0.4122	0.4396 0.3903	0.4346	0.4210	0.3932	Ave		0.4148			0.1000	4.5		20.0			
n-Heptane	+++++ 0.2478	0.9427 0.2524	0.3201	0.2642	0.2646	Lin1	0.7022	0.2411				3.5			0.9990		0.9900
Trichloroethene	0.3249 0.3269	0.3287 0.3204	0.3318	0.3237	0.3222	Ave		0.3255			0.1500	1.2		20.0			
Methylcyclohexane	0.4971 0.5612	0.5322 0.5415	0.5580	0.5535	0.5521	Ave		0.5422			0.1000	4.1		20.0			
1,2-Dichloropropane	0.2730 0.2625	0.2736 0.2600	0.2744	0.2561	0.2573	Ave		0.2653			0.1000	3.1		20.0			
Dibromomethane	0.1916 0.2202	0.2238 0.2059	0.2278	0.2158	0.2113	Ave		0.2138				5.7		20.0			
1,4-Dioxane	+++++ 0.0026	0.0027 0.0026	0.0026	0.0028	0.0023	Ave		0.0026				6.9		20.0			
Bromodichloromethane	0.3940 0.4015	0.3994 0.3982	0.4027	0.3937	0.3875	Ave		0.3967			0.1500	1.3		20.0			
2-Chloroethyl vinyl ether	0.2007 0.1881	0.1688 0.2082	0.2103	0.1817	0.2029	Ave		0.1944				7.9		20.0			
cis-1,3-Dichloropropene	0.4332 0.4433	0.4141 0.4563	0.4593	0.4318	0.4478	Ave		0.4408			0.1500	3.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.4300 0.3779	0.4027 0.3919	0.4183	0.3885	0.3806	Ave		0.3986			0.0500	4.9		20.0			
Toluene	1.8561 1.5164	1.6838 1.4813	1.6035	1.5012	1.5169	Ave		1.5942			0.4000	8.5		20.0			
trans-1,3-Dichloropropene	0.5648 0.5654	0.5778 0.5699	0.5847	0.5572	0.5726	Ave		0.5703			0.1000	1.6		20.0			
Ethyl methacrylate	0.5552 0.5249	0.5713 0.5454	0.5681	0.5321	0.5387	Ave		0.5480				3.2		20.0			
1,1,2-Trichloroethane	0.3235 0.3189	0.3473 0.3214	0.3394	0.3206	0.3170	Ave		0.3269			0.1000	3.6		20.0			
Tetrachloroethene	0.4332 0.4439	0.4771 0.4341	0.4530	0.4458	0.4377	Ave		0.4464			0.1500	3.4		20.0			
1,3-Dichloropropane	0.5988 0.5586	0.6185 0.5629	0.6003	0.5547	0.5634	Ave		0.5796				4.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.4180 0.3685	0.4279 0.3957	0.4302	0.3874	0.3778	Ave		0.4008			0.0500	6.2		20.0			
Chlorodibromomethane	0.4061 0.4081	0.4206 0.4086	0.4078	0.4054	0.4033	Ave		0.4086				1.4		20.0			
1,2-Dibromoethane	0.3641 0.3486	0.3722 0.3587	0.3738	0.3528	0.3527	Ave		0.3604				2.8		20.0			
Chlorobenzene	0.9422 0.9869	1.0256 0.9802	1.0178	0.9804	0.9845	Ave		0.9882			0.3000	2.8		20.0			
1,1,1,2-Tetrachloroethane	0.3579 0.3996	0.4110 0.3794	0.3996	0.3974	0.3791	Ave		0.3892				4.6		20.0			
Ethylbenzene	0.5565 0.5462	0.5460 0.5346	0.5652	0.5407	0.5485	Ave		0.5482				1.8		20.0			
m-Xylene & p-Xylene	0.6835 0.6612	0.6601 0.6557	0.6922	0.6636	0.6667	Ave		0.6690				2.0		20.0			
o-Xylene	0.6786 0.6613	0.6778 0.6393	0.6675	0.6600	0.6463	Ave		0.6616				2.2		20.0			
Styrene	1.0109 1.0778	1.0585 1.0792	1.1128	1.0621	1.0793	Ave		1.0687			0.3000	2.9		20.0			
Bromoform	0.3125 0.3176	0.3349 0.3217	0.3203	0.3135	0.3147	Ave		0.3193			0.1000	2.4		20.0			
Isopropylbenzene	1.6316 1.8080	1.7789 1.7180	1.8406	1.7925	1.7803	Ave		1.7643			0.1000	3.9		20.0			
1,1,2,2-Tetrachloroethane	0.9705 0.8929	1.0302 0.9135	0.9618	0.9143	0.8621	Ave		0.9350			0.3000	6.0		20.0			
Bromobenzene	0.8035 0.7798	0.7970 0.7876	0.8123	0.7682	0.7719	Ave		0.7886				2.1		20.0			
1,2,3-Trichloropropane	0.3193 0.3070	0.3453 0.3175	0.3367	0.3227	0.3040	Ave		0.3218				4.6		20.0			
trans-1,4-Dichloro-2-butene	0.3484 0.2983	0.3184 0.3216	0.3319	0.3096	0.3038	Ave		0.3189				5.4		20.0			
N-Propylbenzene	0.8092 0.8718	0.8864 0.8656	0.9067	0.8835	0.8699	Ave		0.8704				3.5		20.0			
2-Chlorotoluene	0.6889 0.7508	0.7421 0.7314	0.7576	0.7466	0.7338	Ave		0.7359				3.1		20.0			
1,3,5-Trimethylbenzene	2.5211 2.6714	2.6313 2.5911	2.6924	2.6603	2.6089	Ave		2.6252				2.2		20.0			
4-Chlorotoluene	0.7070 0.7489	0.7386 0.7565	0.7868	0.7573	0.7476	Ave		0.7489				3.2		20.0			
tert-Butylbenzene	2.2479 2.4186	2.0596 2.3565	2.4190	2.4252	2.3819	Ave		2.3298				5.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.5454 2.7193	2.6570 2.6500	2.7424	2.7417	2.6678	Ave		2.6748				2.6		20.0			
sec-Butylbenzene	2.9674 3.4766	3.0586 3.3521	3.4579	3.4994	3.4024	Ave		3.3163				6.5		20.0			
1,3-Dichlorobenzene	1.4045 1.4891	1.4728 1.4904	1.5336	1.5090	1.4780	Ave		1.4825			0.6000	2.7		20.0			
4-Isopropyltoluene	2.4869 2.9683	2.7389 2.8578	2.9177	2.9441	2.8935	Ave		2.8296				6.0		20.0			
1,4-Dichlorobenzene	1.4549 1.5019	1.5379 1.5041	1.5270	1.5170	1.4843	Ave		1.5039			0.5000	1.8		20.0			
n-Butylbenzene	2.2360 2.6257	2.4563 2.5564	2.5732	2.6305	2.5660	Ave		2.5206				5.5		20.0			
1,2-Dichlorobenzene	1.3000 1.4418	1.4961 1.4253	1.4771	1.4773	1.3920	Ave		1.4299			0.4000	4.7		20.0			
1,2-Dibromo-3-Chloropropane	0.2919 0.2932	0.3283 0.3028	0.3032	0.2991	0.2694	Ave		0.2983			0.0500	5.9		20.0			
1,2,4-Trichlorobenzene	1.0350 1.1037	1.0557 1.0748	1.0442	1.1117	1.0406	Ave		1.0665			0.2000	2.9		20.0			
Hexachlorobutadiene	0.4860 0.5637	0.5220 0.5403	0.5387	0.5647	0.5295	Ave		0.5350				5.0		20.0			
Naphthalene	3.0879 3.3546	3.4381 3.2817	3.2551	3.4236	3.0617	Ave		3.2718				4.6		20.0			
1,2,3-Trichlorobenzene	0.9638 1.0677	1.0585 1.0330	1.0262	1.0691	0.9904	Ave		1.0298				3.9		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2780	0.3184 0.2684	0.2736	0.2745	0.2621	Ave		0.2791				7.2		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3304	0.4294 0.3177	0.3340	0.3273	0.3034	Ave		0.3404				13.2		20.0			
Toluene-d8 (Surr)	+++++ 1.3113	1.4250 1.2642	1.3436	1.2802	1.2814	Ave		1.3176				4.5		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4863	0.6047 0.4791	0.5000	0.4684	0.4861	Ave		0.5041				10.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11373 1309314	17416 1683292	207522	425021	860921	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	11004 1050402	19209 1356601	181904	344184	689828	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	11930 1023641	18158 1355830	176186	349982	693180	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	10131 1038352	16677 1358309	177759	348491	684912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	8009 686916	14105 916488	123599	233282	459784	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	6664 575117	11036 758475	100499	202678	392078	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	15623 1437797	30892 1903110	260931	505091	983126	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	13562 1494000	23466 1955643	258487	511074	1010981	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	6602 633406	12559 833797	113124	207663	408429	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	9056 828744	14605 1142503	143999	250620	502247	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	10688 1281165	22274 1700938	219914	429657	847282	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	7256 865765	14386 1159656	153522	287876	577707	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 515725	20652 691536	111533	197869	305654	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	11180 1387989	23352 1850683	235810	460012	915064	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	21718 2437300	41785 3293479	428052	815176	1641380	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	12736 1380725	26462 1828013	238666	462217	900260	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	17671 1541894	30444 2041101	278897	544537	909178	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 1019047	23802 1360499	183218	347353	663519	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	9833 787544	19791 1126238	152672	277750	573420	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	31330 3468912	60368 4659474	645349	1259951	2010507	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	10137 1191915	20291 1583461	207607	396341	776885	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	19231 2528103	42498 3130703	420862	819311	1548919	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	11445 1319467	21643 1803399	231973	447067	890686	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	12529 1469228	25178 1945399	251929	485448	941841	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	13828 1484476	25374 2067496	261243	487474	962836	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8213 926586	16014 1228049	153921	304990	585104	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	9601 1075587	19792 1325812	204827	365936	735204	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	2318 249401	4049 361707	47780	87329	158714	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	5506 682560	11986 883682	116442	224773	408024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	7570 673720	12865 956457	127198	238889	422140	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	13526 1488550	25187 1968856	250264	486695	952636	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	11728 1415267	22733 1890856	246791	467092	940453	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	10485 1300911	20343 1765071	227197	437645	874845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	9756 1199430	19775 1611687	210070	391182	792006	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Lin1	18823 1314362	23584 1761498	228954	430201	870219	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	6282 866113	13280 1179445	176727	326265	530047	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	28207 3147217	51084 4207264	558109	1039847	2067566	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	10376 1182841	20569 1534455	213975	399388	760202	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 711018	44115 992534	157602	250650	511678	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	8160 938084	15382 1259546	163338	307132	622907	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	12485 1610355	24903 2128978	274690	525090	1067480	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6856 753253	12805 1022265	135073	242989	497546	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	4813 631885	10472 809651	112165	204743	408505	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 148668	2566 207134	25855	53630	88935	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	9896 1152161	18688 1565488	198267	373480	749241	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	10080 1079368	15802 1636872	207105	344748	784526	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10879 1271967	19376 1793949	226129	409713	865852	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	21600 2169021	37690 3081464	411915	737172	1471646	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	34442 3186014	53235 4531981	592183	1030620	2226439	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10481 1187812	18267 1743547	215953	382525	840406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	10302 1102878	18062 1668694	209826	365282	790748	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6002 670048	10980 983406	125360	220112	465284	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	8039 932700	15084 1328035	167297	306069	642474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	11112 1173543	19554 1722342	221703	380795	826935	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	15514 1548313	27058 2421073	317740	531908	1108950	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	7535 857347	13299 1250275	150589	278352	591945	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6756 732482	11766 1097537	138061	242199	517731	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	17484 2073480	32424 2998944	375883	673120	1444939	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6641 839487	12995 1160832	147586	272850	556447	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10326 1147542	17263 1635540	208719	371241	805112	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12683 1389180	20870 2006210	255641	455575	978512	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12593 1389320	21430 1955985	246520	453136	948627	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18759 2264386	33464 3301802	410992	729183	1584146	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	5798 667233	10589 984365	118295	215255	461914	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	30277 3798685	56240 5256323	679767	1230653	2613104	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9911 1056819	19009 1550475	199576	353511	716468	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8206 922946	14707 1336741	168549	296991	641474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3261 363306	6371 538847	69858	124764	252680	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3558 353096	5876 545800	68860	119706	252506	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8264 1031834	16357 1469130	188144	341570	722942	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7035 888571	13694 1241404	157209	288675	609830	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	25746 3161732	48553 4397858	558664	1028530	2168187	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7220 886329	13629 1284024	163259	292782	621292	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	22956 2862526	38005 3999740	501946	937668	1979593	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	25994 3218464	49027 4497885	569044	1060037	2217154	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30304 4114794	56438 5689446	717516	1352965	2827692	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	14343 1762477	27177 2529679	318220	583407	1228334	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25397 3513217	50539 4850510	605420	1138274	2404745	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	14858 1777555	28377 2552935	316848	586498	1233613	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	22835 3107744	45325 4338883	533937	1017027	2132530	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	13276 1706452	27607 2419111	306502	571182	1156845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2981 346989	6058 513928	62913	115651	223935	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	10570 1306341	19481 1824219	216678	429819	864831	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4963 667161	9632 917078	111774	218345	440077	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	31534 3970381	63441 5569940	675440	1323648	2544532	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9843 1263734	19531 1753382	212929	413333	823078	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 797706	14897 1055077	134703	260439	506726	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 948068	20095 1248924	164448	310486	586620	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2755016	45052 3867976	496231	878902	1880831	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1021788	19117 1465723	184651	321546	713420	+++++ 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	+++++	-16.6						50				
Carbon tetrachloride	13.8						50					
n-Heptane	+++++	-0.2						50				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-332816/18	U1900012.d
Level 2	STDA9 240-332816/19	U1900013.d
Level 3	STDA9 240-332816/20	U1900014.d
Level 4	STDA9 240-332816/21	U1900015.d
Level 5	STDA9 240-332816/22	U1900016.d
Level 6	STDA9 240-332816/23	U1900017.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0440 0.0490	0.0382	0.0539	0.0578	0.0499	Ave		0.0488				14.3		20.0			
Diisopropyl ether	+++++ 0.2346	0.2654	0.2530	0.2431	0.2420	Ave		0.2476				4.8		20.0			
2-Chloro-1,3-butadiene	0.6649 0.4575	0.5562	0.5210	0.4938	0.4852	Ave		0.5298				14.0		20.0			
Ethyl tert-butyl ether	1.1766 0.8711	1.0249	0.9298	0.9051	0.9005	Ave		0.9680				11.9		20.0			
Ethyl acetate	+++++ 0.3795	0.3822	0.3598	0.3646	0.3359	Ave		0.3644				5.1		20.0			
Propionitrile	0.0683 0.0563	0.0527	0.0549	0.0641	0.0564	Ave		0.0588				10.3		20.0			
Methacrylonitrile	0.3193 0.2305	0.2666	0.2399	0.2448	0.2288	Ave		0.2550				13.5		20.0			
Tert-amyl methyl ether	1.2913 0.9508	1.0756	0.9912	0.9813	0.9297	Ave		1.0366				13.0		20.0			
n-Butanol	0.0177 0.0125	0.0153	0.0138	0.0141	0.0132	Ave		0.0144				12.7		20.0			
Ethyl acrylate	+++++ 0.4717	0.4821	0.4229	0.4249	0.4196	Ave		0.4442				6.8		20.0			
Methyl methacrylate	+++++ 0.3139	0.3205	0.2871	0.2902	0.2880	Ave		0.2999				5.3		20.0			
2-Nitropropane	+++++ 0.1233	0.1466	0.1212	0.1199	0.1136	Ave		0.1249				10.1		20.0			
n-Butyl acetate	+++++ 0.7737	0.9218	0.7852	0.7680	0.7497	Ave		0.7997				8.7		20.0			
1-Chlorohexane	+++++ 0.4618	0.5849	0.5166	0.4819	0.4772	Ave		0.5045				9.8		20.0			
Cyclohexanone	+++++ 0.0172	0.0260	0.0200	0.0206	0.0199	Ave		0.0207				15.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	+++++ 0.3932	0.5022	0.4769	0.4689	0.4958	Ave		0.4674				9.3		20.0			
1,2,3-Trimethylbenzene	3.6871 2.8072	2.9735	2.8013	2.7247	2.7636	Ave		2.9596				12.4		20.0			
Benzyl chloride	2.5839 1.9948	2.1464	1.9654	1.9389	1.8837	Ave		2.0855				12.4		20.0			
1,3,5-Trichlorobenzene	1.5335 1.2076	1.3448	1.2369	1.2016	1.2228	Ave		1.2912				10.1		20.0			
2-Methylnaphthalene	2.2289 2.2859	2.1977	2.1142	2.2206	2.2097	Ave		2.2095				2.5		20.0			
1-Chloro-1-fluoroethane TIC	0.4705 0.3032	0.3951	0.3442	0.3263	0.3242	Ave		0.3606				17.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-332816/18	U1900012.d
Level 2	STDA9 240-332816/19	U1900013.d
Level 3	STDA9 240-332816/20	U1900014.d
Level 4	STDA9 240-332816/21	U1900015.d
Level 5	STDA9 240-332816/22	U1900016.d
Level 6	STDA9 240-332816/23	U1900017.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	10589 1885698	16980	238952	520620	894284	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	+++++ 902572	11799	112275	218833	433423	+++++ 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	16009 1760461	24730	231145	444481	868984	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	28329 3351573	45566	412550	814793	1612736	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	+++++ 2920152	33985	319268	656361	1203167	+++++ 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	16451 2165015	23418	243383	576982	1010470	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	76875 8868656	118534	1064407	2204121	4097922	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	31090 3658334	47819	439804	883349	1664934	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	10631 1201712	16995	153314	317991	592852	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	+++++ 1814764	21432	187651	382505	751449	+++++ 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	+++++ 2415483	28501	254726	522427	1031629	+++++ 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	+++++ 949112	13034	107594	215930	406897	+++++ 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	+++++ 2181276	28026	238764	480824	930224	+++++ 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	+++++ 1301788	17783	157066	301689	592169	+++++ 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	+++++ 485781	7903	60794	128832	246970	+++++ 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	+++++ 1216448	17821	169885	341568	713940	+++++ 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	36176 4341951	52754	498949	992308	1989854	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	25352 3085323	38080	350054	706139	1356310	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	15046 1867833	23859	220314	437598	880409	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	43738 7071438	77980	753123	1617442	3181999	1.00 160	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	11329 1166527	17564	152718	293743	580550	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3142	0.1000	0.0145	0.0200	-27.3	30.0
Chloromethane	Ave	0.3784	0.3164	0.1000	0.0167	0.0200	-16.4	30.0
Butadiene	Ave	0.3786	0.3078		0.0163	0.0200	-18.7	30.0
Vinyl chloride	Ave	0.3642	0.3401	0.1000	0.0187	0.0200	-6.6	30.0
Bromomethane	Ave	0.2611	0.2317	0.0500	0.0177	0.0200	-11.3	30.0
Chloroethane	Ave	0.2164	0.1923	0.0500	0.0178	0.0200	-11.2	30.0
Dichlorofluoromethane	Ave	0.5483	0.5253		0.0192	0.0200	-4.2	30.0
Trichlorofluoromethane	Ave	0.5209	0.5127	0.1000	0.0197	0.0200	-1.6	30.0
Ethyl ether	Ave	0.2320	0.2306		0.0199	0.0200	-0.6	30.0
Acrolein	Ave	0.0591	0.0353		0.0598	0.100	-40.2	50.0
1,1-Dichloroethene	Ave	0.4455	0.4510	0.1000	0.0202	0.0200	1.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.3063	0.0500	0.0204	0.0200	1.8	30.0
Acetone	Lin1		0.1038	0.0100	0.0449	0.0400	12.1	50.0
Iodomethane	Ave	0.4765	0.4866		0.0204	0.0200	2.1	30.0
Carbon disulfide	Ave	0.8603	0.8957	0.1000	0.0208	0.0200	4.1	30.0
3-Chloro-1-propene	Ave	0.4938	0.4834		0.0196	0.0200	-2.1	30.0
Methyl acetate	Ave	0.2872	0.2701	0.1000	0.0376	0.0400	-6.0	30.0
Methylene Chloride	Ave	0.3819	0.3606	0.1000	0.0189	0.0200	-5.6	50.0
tert-Butyl alcohol	Ave	0.0325	0.0347		0.213	0.200	6.7	50.0
Acrylonitrile	Ave	0.1230	0.1277		0.208	0.200	3.8	30.0
trans-1,2-Dichloroethene	Ave	0.4138	0.4207	0.1000	0.0203	0.0200	1.7	30.0
Methyl tert-butyl ether	Ave	0.8387	0.8386	0.1000	0.0200	0.0200	-0.0	30.0
Hexane	Ave	0.4628	0.4670		0.0202	0.0200	0.9	30.0
1,1-Dichloroethane	Ave	0.5077	0.5027	0.2000	0.0198	0.0200	-1.0	30.0
Vinyl acetate	Ave	0.5255	0.6199		0.0236	0.0200	18.0	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3188	0.1000	0.0199	0.0200	-0.4	30.0
2,2-Dichloropropane	Ave	0.3856	0.3848		0.0200	0.0200	-0.2	30.0
2-Butanone (MEK)	Ave	0.0449	0.0516	0.0100	0.0460	0.0400	14.9	30.0
Bromochloromethane	Ave	0.2318	0.2330		0.0201	0.0200	0.5	30.0
Tetrahydrofuran	Ave	0.1273	0.1312		0.0412	0.0400	3.0	30.0
Chloroform	Ave	0.5158	0.5012	0.2000	0.0194	0.0200	-2.8	30.0
1,1,1-Trichloroethane	Ave	0.4867	0.4883	0.1000	0.0201	0.0200	0.3	30.0
Cyclohexane	Ave	0.4471	0.4652	0.1000	0.0208	0.0200	4.0	30.0
1,1-Dichloropropene	Ave	0.4125	0.4156		0.0201	0.0200	0.7	30.0
Carbon tetrachloride	Lin1		0.4501	0.1000	0.0198	0.0200	-1.2	30.0
Isobutyl alcohol	Ave	0.0121	0.0147		0.610	0.500	21.9	30.0
1,2-Dichloroethane	Ave	0.4148	0.4204	0.1000	0.0203	0.0200	1.3	30.0
Benzene	Ave	1.097	1.090	0.5000	0.0199	0.0200	-0.7	30.0
n-Heptane	Lin1		0.2796		0.0203	0.0200	1.4	30.0
Trichloroethene	Ave	0.3255	0.3258	0.1500	0.0200	0.0200	0.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5372	0.1000	0.0198	0.0200	-0.9	30.0
1,2-Dichloropropane	Ave	0.2653	0.2695	0.1000	0.0203	0.0200	1.6	30.0
Dibromomethane	Ave	0.2138	0.2122		0.0199	0.0200	-0.7	30.0
1,4-Dioxane	Ave	0.0026	0.0032		0.484	0.400	20.9	50.0
Bromodichloromethane	Ave	0.3967	0.3939	0.1500	0.0199	0.0200	-0.7	30.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.2147		0.0221	0.0200	10.5	30.0
cis-1,3-Dichloropropene	Ave	0.4408	0.4692	0.1500	0.0213	0.0200	6.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.4153	0.0500	0.0417	0.0400	4.2	30.0
Toluene	Ave	1.594	1.517	0.4000	0.0190	0.0200	-4.8	30.0
trans-1,3-Dichloropropene	Ave	0.5703	0.5684	0.1000	0.0199	0.0200	-0.3	30.0
Ethyl methacrylate	Ave	0.5480	0.5501		0.0201	0.0200	0.4	30.0
1,1,2-Trichloroethane	Ave	0.3269	0.3278	0.1000	0.0201	0.0200	0.3	30.0
Tetrachloroethene	Ave	0.4464	0.4366	0.1500	0.0196	0.0200	-2.2	30.0
1,3-Dichloropropane	Ave	0.5796	0.5673		0.0196	0.0200	-2.1	30.0
2-Hexanone	Ave	0.4008	0.4182	0.0500	0.0417	0.0400	4.3	30.0
Chlorodibromomethane	Ave	0.4086	0.4062		0.0199	0.0200	-0.6	30.0
1,2-Dibromoethane	Ave	0.3604	0.3558		0.0197	0.0200	-1.3	30.0
Chlorobenzene	Ave	0.9882	0.9877	0.3000	0.0200	0.0200	-0.0	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3822		0.0196	0.0200	-1.8	30.0
Ethylbenzene	Ave	0.5482	0.5311		0.0194	0.0200	-3.1	30.0
m-Xylene & p-Xylene	Ave	0.6690	0.6556		0.0196	0.0200	-2.0	30.0
o-Xylene	Ave	0.6616	0.6471		0.0196	0.0200	-2.2	30.0
Styrene	Ave	1.069	1.057	0.3000	0.0198	0.0200	-1.0	30.0
Bromoform	Ave	0.3193	0.3193	0.1000	0.0200	0.0200	0.0	30.0
Isopropylbenzene	Ave	1.764	1.760	0.1000	0.0199	0.0200	-0.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.9312	0.3000	0.0199	0.0200	-0.4	30.0
Bromobenzene	Ave	0.7886	0.7780		0.0197	0.0200	-1.3	30.0
1,2,3-Trichloropropane	Ave	0.3218	0.3215		0.0200	0.0200	-0.1	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.3374		0.0212	0.0200	5.8	30.0
N-Propylbenzene	Ave	0.8704	0.8701		0.0200	0.0200	-0.0	30.0
2-Chlorotoluene	Ave	0.7359	0.7377		0.0200	0.0200	0.2	30.0
1,3,5-Trimethylbenzene	Ave	2.625	2.598		0.0198	0.0200	-1.0	30.0
4-Chlorotoluene	Ave	0.7489	0.7524		0.0201	0.0200	0.5	30.0
tert-Butylbenzene	Ave	2.330	2.365		0.0203	0.0200	1.5	30.0
1,2,4-Trimethylbenzene	Ave	2.675	2.658		0.0199	0.0200	-0.6	30.0
sec-Butylbenzene	Ave	3.316	3.407		0.0205	0.0200	2.7	30.0
1,3-Dichlorobenzene	Ave	1.482	1.492	0.6000	0.0201	0.0200	0.7	30.0
4-Isopropyltoluene	Ave	2.830	2.896		0.0205	0.0200	2.3	30.0
1,4-Dichlorobenzene	Ave	1.504	1.507	0.5000	0.0200	0.0200	0.2	30.0
n-Butylbenzene	Ave	2.521	2.517		0.0200	0.0200	-0.2	30.0
1,2-Dichlorobenzene	Ave	1.430	1.442	0.4000	0.0202	0.0200	0.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2944	0.0500	0.0197	0.0200	-1.3	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.064	0.2000	0.0199	0.0200	-0.3	50.0
Hexachlorobutadiene	Ave	0.5350	0.5416		0.0202	0.0200	1.2	30.0
Naphthalene	Ave	3.272	3.256		0.0199	0.0200	-0.5	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.043		0.0202	0.0200	1.2	30.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2762		0.0198	0.0200	-1.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3250		0.0191	0.0200	-4.5	30.0
Toluene-d8 (Surr)	Ave	1.318	1.270		0.0193	0.0200	-3.6	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4918		0.0195	0.0200	-2.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-332816/24 Calibration Date: 06/22/2018 01:38

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900018.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2791	0.2742		0.0196	0.0200	-1.8	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3410		0.0200	0.0200	0.2	30.0
Toluene-d8 (Surr)	Ave	1.318	1.231		0.0187	0.0200	-6.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4710		0.0187	0.0200	-6.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-332816/24 Calibration Date: 06/22/2018 01:38

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900018.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0480		0.197	0.200	-1.7	30.0
Diisopropyl ether	Ave	0.2476	0.2421		0.0196	0.0200	-2.2	30.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4734		0.0179	0.0200	-10.6	30.0
Ethyl tert-butyl ether	Ave	0.9680	0.8578		0.0177	0.0200	-11.4	30.0
Ethyl acetate	Ave	0.3644	0.4159		0.0457	0.0400	14.1	50.0
Propionitrile	Ave	0.0588	0.0594		0.202	0.200	1.0	30.0
Methacrylonitrile	Ave	0.2550	0.2470		0.194	0.200	-3.2	30.0
Tert-amyl methyl ether	Ave	1.037	0.9419		0.0182	0.0200	-9.1	30.0
n-Butanol	Ave	0.0144	0.0118		0.408	0.500	-18.4	30.0
Ethyl acrylate	Ave	0.4442	0.4794		0.0216	0.0200	7.9	30.0
Methyl methacrylate	Ave	0.2999	0.3252		0.0434	0.0400	8.4	30.0
2-Nitropropane	Ave	0.1249	0.1302		0.0417	0.0400	4.2	30.0
n-Butyl acetate	Ave	0.7997	0.7775		0.0194	0.0200	-2.8	30.0
1-Chlorohexane	Ave	0.5045	0.4899		0.0194	0.0200	-2.9	30.0
Cyclohexanone	Ave	0.0207	0.0174		0.168	0.200	-16.0	30.0
Pentachloroethane	Ave	0.4674	0.2815		0.0241	0.0400	-39.8*	30.0
1,2,3-Trimethylbenzene	Ave	2.960	2.703		0.0183	0.0200	-8.7	30.0
Benzyl chloride	Ave	2.086	1.809		0.0173	0.0200	-13.3	30.0
1,3,5-Trichlorobenzene	Ave	1.291	1.144		0.0177	0.0200	-11.4	30.0
2-Methylnaphthalene	Ave	2.209	1.976		0.0358	0.0400	-10.6	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb007.d BFB Injection Date: 06/25/2018

Instrument ID: A3UX19 BFB Injection Time: 19:04

Analysis Batch No.: 333371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	51.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	85.8	
175	5.0 - 9.0 % of mass 174	6.2	(7.2) 1
176	95.0 - 101.0 % of mass 174	84.2	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-333371/3	U1900125.d	06/25/2018	19:27
	CCVIS 240-333371/4	U1900126.d	06/25/2018	19:49
	LCS 240-333371/5	U1900127.d	06/25/2018	20:11
	MB 240-333371/8	U1900130.d	06/25/2018	21:18
TB-062018	240-97405-1	U1900143.d	06/26/2018	02:07
DMW-6I-0620118	240-97405-2	U1900144.d	06/26/2018	02:30
DMW-6D-0620118	240-97405-3	U1900145.d	06/26/2018	02:52

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333371/3 Calibration Date: 06/25/2018 19:27

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900125.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0491		0.201	0.200	0.7	20.0
Diisopropyl ether	Ave	0.2476	0.2282		0.0184	0.0200	-7.8	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4797		0.0181	0.0200	-9.5	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8125		0.0168	0.0200	-16.1	20.0
Ethyl acetate	Ave	0.3644	0.3159		0.0347	0.0400	-13.3	50.0
Propionitrile	Ave	0.0588	0.0482		0.164	0.200	-18.0	20.0
Methacrylonitrile	Ave	0.2550	0.2132		0.167	0.200	-16.4	20.0
Tert-amyl methyl ether	Ave	1.037	0.8867		0.0171	0.0200	-14.5	20.0
n-Butanol	Ave	0.0144	0.0112		0.389	0.500	-22.2*	20.0
Ethyl acrylate	Ave	0.4442	0.3681		0.0166	0.0200	-17.1	20.0
Methyl methacrylate	Ave	0.2999	0.2579		0.0344	0.0400	-14.0	20.0
2-Nitropropane	Ave	0.1249	0.1025		0.0328	0.0400	-17.9	20.0
n-Butyl acetate	Ave	0.7997	0.6956		0.0174	0.0200	-13.0	20.0
1-Chlorohexane	Ave	0.5045	0.5058		0.0201	0.0200	0.3	20.0
Cyclohexanone	Ave	0.0207	0.0186		0.180	0.200	-10.1	20.0
Pentachloroethane	Ave	0.4674	0.4677		0.0400	0.0400	0.0	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.739		0.0185	0.0200	-7.5	20.0
Benzyl chloride	Ave	2.086	1.920		0.0184	0.0200	-8.0	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.243		0.0192	0.0200	-3.8	20.0
2-Methylnaphthalene	Ave	2.209	2.092		0.0379	0.0400	-5.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333371/4 Calibration Date: 06/25/2018 19:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900126.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.4031	0.1000	0.0187	0.0200	-6.7	20.0
Chloromethane	Ave	0.3784	0.3433	0.1000	0.0181	0.0200	-9.3	20.0
Butadiene	Ave	0.3786	0.3508		0.0185	0.0200	-7.3	20.0
Vinyl chloride	Ave	0.3642	0.3378	0.1000	0.0185	0.0200	-7.3	20.0
Bromomethane	Ave	0.2611	0.2310	0.0500	0.0177	0.0200	-11.5	20.0
Chloroethane	Ave	0.2164	0.1944	0.0500	0.0180	0.0200	-10.2	20.0
Dichlorofluoromethane	Ave	0.5483	0.4973		0.0181	0.0200	-9.3	20.0
Trichlorofluoromethane	Ave	0.5209	0.5056	0.1000	0.0194	0.0200	-2.9	20.0
Ethyl ether	Ave	0.2320	0.2086		0.0180	0.0200	-10.1	20.0
Acrolein	Ave	0.0591	0.0409		0.0691	0.100	-30.9	50.0
1,1-Dichloroethene	Ave	0.4455	0.4098	0.1000	0.0184	0.0200	-8.0	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2794	0.0500	0.0186	0.0200	-7.2	20.0
Acetone	Lin1		0.0940	0.0100	0.0403	0.0400	0.7	50.0
Iodomethane	Ave	0.4765	0.4398		0.0185	0.0200	-7.7	20.0
Carbon disulfide	Ave	0.8603	0.8095	0.1000	0.0188	0.0200	-5.9	20.0
3-Chloro-1-propene	Ave	0.4938	0.4463		0.0181	0.0200	-9.6	20.0
Methyl acetate	Ave	0.2872	0.2405	0.1000	0.0335	0.0400	-16.3	20.0
Methylene Chloride	Ave	0.3819	0.3404	0.1000	0.0178	0.0200	-10.9	50.0
tert-Butyl alcohol	Ave	0.0325	0.0280		0.172	0.200	-14.0	50.0
Acrylonitrile	Ave	0.1230	0.1183		0.192	0.200	-3.8	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8336	0.1000	0.0199	0.0200	-0.6	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.3891	0.1000	0.0188	0.0200	-6.0	20.0
Hexane	Ave	0.4628	0.4298		0.0186	0.0200	-7.1	20.0
1,1-Dichloroethane	Ave	0.5077	0.4796	0.2000	0.0189	0.0200	-5.5	20.0
Vinyl acetate	Ave	0.5255	0.5752		0.0219	0.0200	9.5	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3001	0.1000	0.0187	0.0200	-6.3	20.0
2,2-Dichloropropane	Ave	0.3856	0.3581		0.0186	0.0200	-7.1	20.0
2-Butanone (MEK)	Ave	0.0449	0.0417	0.0100	0.0371	0.0400	-7.3	20.0
Bromochloromethane	Ave	0.2318	0.2259		0.0195	0.0200	-2.5	20.0
Tetrahydrofuran	Ave	0.1273	0.1188		0.0373	0.0400	-6.7	20.0
Chloroform	Ave	0.5158	0.4854	0.2000	0.0188	0.0200	-5.9	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4587	0.1000	0.0189	0.0200	-5.7	20.0
Cyclohexane	Ave	0.4471	0.4332	0.1000	0.0194	0.0200	-3.1	20.0
1,1-Dichloropropene	Ave	0.4125	0.3992		0.0194	0.0200	-3.2	20.0
Carbon tetrachloride	Lin1		0.4225	0.1000	0.0185	0.0200	-7.4	20.0
Isobutyl alcohol	Ave	0.0121	0.0129		0.535	0.500	7.0	20.0
1,2-Dichloroethane	Ave	0.4148	0.3998	0.1000	0.0193	0.0200	-3.6	20.0
Benzene	Ave	1.097	1.058	0.5000	0.0193	0.0200	-3.5	20.0
n-Heptane	Lin1		0.2648		0.0191	0.0200	-4.7	20.0
Trichloroethene	Ave	0.3255	0.3110	0.1500	0.0191	0.0200	-4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333371/4 Calibration Date: 06/25/2018 19:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900126.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5194	0.1000	0.0192	0.0200	-4.2	20.0
1,2-Dichloropropane	Ave	0.2653	0.2511	0.1000	0.0189	0.0200	-5.4	20.0
Dibromomethane	Ave	0.2138	0.2070		0.0194	0.0200	-3.2	20.0
1,4-Dioxane	Ave	0.0026	0.0029		0.440	0.400	10.1	50.0
Bromodichloromethane	Ave	0.3967	0.3700	0.1500	0.0187	0.0200	-6.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1890		0.0389	0.0400	-2.8	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.4207	0.1500	0.0191	0.0200	-4.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3656	0.0500	0.0367	0.0400	-8.3	20.0
Toluene	Ave	1.594	1.518	0.4000	0.0190	0.0200	-4.8	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.5357	0.1000	0.0188	0.0200	-6.1	20.0
Ethyl methacrylate	Ave	0.5480	0.5208		0.0190	0.0200	-5.0	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.3136	0.1000	0.0192	0.0200	-4.1	20.0
Tetrachloroethene	Ave	0.4464	0.4286	0.1500	0.0192	0.0200	-4.0	20.0
1,3-Dichloropropane	Ave	0.5796	0.5545		0.0191	0.0200	-4.3	20.0
2-Hexanone	Ave	0.4008	0.3926	0.0500	0.0392	0.0400	-2.0	20.0
Chlorodibromomethane	Ave	0.4086	0.3781		0.0185	0.0200	-7.5	20.0
1,2-Dibromoethane	Ave	0.3604	0.3467		0.0192	0.0200	-3.8	20.0
Chlorobenzene	Ave	0.9882	0.9781	0.3000	0.0198	0.0200	-1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3684		0.0189	0.0200	-5.3	20.0
Ethylbenzene	Ave	0.5482	0.5419		0.0198	0.0200	-1.1	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6610		0.0198	0.0200	-1.2	20.0
o-Xylene	Ave	0.6616	0.6471		0.0196	0.0200	-2.2	20.0
Styrene	Ave	1.069	1.075	0.3000	0.0201	0.0200	0.6	20.0
Bromoform	Ave	0.3193	0.2930	0.1000	0.0183	0.0200	-8.3	20.0
Isopropylbenzene	Ave	1.764	1.748	0.1000	0.0198	0.0200	-0.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8857	0.3000	0.0189	0.0200	-5.3	20.0
Bromobenzene	Ave	0.7886	0.7641		0.0194	0.0200	-3.1	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.3004		0.0187	0.0200	-6.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2803		0.0176	0.0200	-12.1	20.0
N-Propylbenzene	Ave	0.8704	0.8621		0.0198	0.0200	-1.0	20.0
2-Chlorotoluene	Ave	0.7359	0.7309		0.0199	0.0200	-0.7	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.590		0.0197	0.0200	-1.4	20.0
4-Chlorotoluene	Ave	0.7489	0.7492		0.0200	0.0200	0.0	20.0
tert-Butylbenzene	Ave	2.330	2.354		0.0202	0.0200	1.1	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.640		0.0197	0.0200	-1.3	20.0
sec-Butylbenzene	Ave	3.316	3.414		0.0206	0.0200	2.9	20.0
1,3-Dichlorobenzene	Ave	1.482	1.467	0.6000	0.0198	0.0200	-1.0	20.0
4-Isopropyltoluene	Ave	2.830	2.903		0.0205	0.0200	2.6	20.0
1,4-Dichlorobenzene	Ave	1.504	1.495	0.5000	0.0199	0.0200	-0.6	20.0
n-Butylbenzene	Ave	2.521	2.682		0.0213	0.0200	6.4	20.0
1,2-Dichlorobenzene	Ave	1.430	1.401	0.4000	0.0196	0.0200	-2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333371/4 Calibration Date: 06/25/2018 19:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900126.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2634	0.0500	0.0177	0.0200	-11.7	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.015	0.2000	0.0190	0.0200	-4.8	50.0
Hexachlorobutadiene	Ave	0.5350	0.5413		0.0202	0.0200	1.2	20.0
Naphthalene	Ave	3.272	3.051		0.0186	0.0200	-6.8	50.0
1,2,3-Trichlorobenzene	Ave	1.030	0.9605		0.0187	0.0200	-6.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2708		0.0194	0.0200	-3.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3353		0.0197	0.0200	-1.5	20.0
Toluene-d8 (Surr)	Ave	1.318	1.321		0.0200	0.0200	0.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.5033		0.0200	0.0200	-0.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb009.d BFB Injection Date: 06/26/2018

Instrument ID: A3UX19 BFB Injection Time: 16:00

Analysis Batch No.: 333562

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.0	
75	30.0 - 60.0 % of mass 95	51.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.8	(1.0) 1
174	50.0 - 120.00 % of mass 95	83.5	
175	5.0 - 9.0 % of mass 174	6.3	(7.6) 1
176	95.0 - 101.0 % of mass 174	80.5	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-333562/3	U1900154.d	06/26/2018	16:26
	CCVIS 240-333562/4	U1900155.d	06/26/2018	16:49
	LCS 240-333562/5	U1900156.d	06/26/2018	17:11
	MB 240-333562/8	U1900159.d	06/26/2018	18:18
DMW-6S-0620118	240-97405-4	U1900160.d	06/26/2018	18:41
MSA-MW-30D-0620118	240-97405-5	U1900161.d	06/26/2018	19:03

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333562/3 Calibration Date: 06/26/2018 16:26

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900154.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0456		0.187	0.200	-6.6	20.0
Diisopropyl ether	Ave	0.2476	0.2328		0.0188	0.0200	-6.0	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4766		0.0180	0.0200	-10.0	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8364		0.0173	0.0200	-13.6	20.0
Ethyl acetate	Ave	0.3644	0.2991		0.0328	0.0400	-17.9	50.0
Propionitrile	Ave	0.0588	0.0545		0.185	0.200	-7.3	20.0
Methacrylonitrile	Ave	0.2550	0.2144		0.168	0.200	-15.9	20.0
Tert-amyl methyl ether	Ave	1.037	0.9138		0.0176	0.0200	-11.8	20.0
n-Butanol	Ave	0.0144	0.0116		0.401	0.500	-19.8	20.0
Ethyl acrylate	Ave	0.4442	0.3652		0.0164	0.0200	-17.8	20.0
Methyl methacrylate	Ave	0.2999	0.2553		0.0340	0.0400	-14.9	20.0
2-Nitropropane	Ave	0.1249	0.1019		0.0326	0.0400	-18.5	20.0
n-Butyl acetate	Ave	0.7997	0.7018		0.0176	0.0200	-12.2	20.0
1-Chlorohexane	Ave	0.5045	0.4889		0.0194	0.0200	-3.1	20.0
Cyclohexanone	Ave	0.0207	0.0188		0.182	0.200	-9.2	20.0
Pentachloroethane	Ave	0.4674	0.4448		0.0381	0.0400	-4.8	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.706		0.0183	0.0200	-8.6	20.0
Benzyl chloride	Ave	2.086	1.889		0.0181	0.0200	-9.4	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.225		0.0190	0.0200	-5.1	20.0
2-Methylnaphthalene	Ave	2.209	2.043		0.0370	0.0400	-7.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333562/4 Calibration Date: 06/26/2018 16:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900155.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3733	0.1000	0.0173	0.0200	-13.6	20.0
Chloromethane	Ave	0.3784	0.3335	0.1000	0.0176	0.0200	-11.9	20.0
Butadiene	Ave	0.3786	0.3399		0.0180	0.0200	-10.2	20.0
Vinyl chloride	Ave	0.3642	0.3363	0.1000	0.0185	0.0200	-7.7	20.0
Bromomethane	Ave	0.2611	0.2355	0.0500	0.0180	0.0200	-9.8	20.0
Chloroethane	Ave	0.2164	0.2018	0.0500	0.0187	0.0200	-6.7	20.0
Dichlorofluoromethane	Ave	0.5483	0.5104		0.0186	0.0200	-6.9	20.0
Trichlorofluoromethane	Ave	0.5209	0.5137	0.1000	0.0197	0.0200	-1.4	20.0
Ethyl ether	Ave	0.2320	0.2148		0.0185	0.0200	-7.4	20.0
Acrolein	Ave	0.0591	0.0434		0.0734	0.100	-26.6	50.0
1,1-Dichloroethene	Ave	0.4455	0.4287	0.1000	0.0192	0.0200	-3.8	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2812	0.0500	0.0187	0.0200	-6.6	20.0
Acetone	Lin1		0.0950	0.0100	0.0407	0.0400	1.9	50.0
Iodomethane	Ave	0.4765	0.4510		0.0189	0.0200	-5.4	20.0
Carbon disulfide	Ave	0.8603	0.8203	0.1000	0.0191	0.0200	-4.7	20.0
3-Chloro-1-propene	Ave	0.4938	0.4545		0.0184	0.0200	-8.0	20.0
Methyl acetate	Ave	0.2872	0.2612	0.1000	0.0364	0.0400	-9.1	20.0
Methylene Chloride	Ave	0.3819	0.3543	0.1000	0.0186	0.0200	-7.2	50.0
tert-Butyl alcohol	Ave	0.0325	0.0288		0.177	0.200	-11.4	50.0
Acrylonitrile	Ave	0.1230	0.1238		0.201	0.200	0.7	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8118	0.1000	0.0194	0.0200	-3.2	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.4018	0.1000	0.0194	0.0200	-2.9	20.0
Hexane	Ave	0.4628	0.4305		0.0186	0.0200	-7.0	20.0
1,1-Dichloroethane	Ave	0.5077	0.4940	0.2000	0.0195	0.0200	-2.7	20.0
Vinyl acetate	Ave	0.5255	0.5543		0.0211	0.0200	5.5	50.0
2,2-Dichloropropane	Ave	0.3856	0.3579		0.0186	0.0200	-7.2	20.0
2-Butanone (MEK)	Ave	0.0449	0.0445	0.0100	0.0396	0.0400	-1.0	20.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3142	0.1000	0.0196	0.0200	-1.9	20.0
Bromochloromethane	Ave	0.2318	0.2353		0.0203	0.0200	1.5	20.0
Tetrahydrofuran	Ave	0.1273	0.1259		0.0396	0.0400	-1.1	20.0
Chloroform	Ave	0.5158	0.5054	0.2000	0.0196	0.0200	-2.0	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4686	0.1000	0.0193	0.0200	-3.7	20.0
Cyclohexane	Ave	0.4471	0.4426	0.1000	0.0198	0.0200	-1.0	20.0
1,1-Dichloropropene	Ave	0.4125	0.4007		0.0194	0.0200	-2.9	20.0
Carbon tetrachloride	Lin1		0.4211	0.1000	0.0185	0.0200	-7.7	20.0
Isobutyl alcohol	Ave	0.0121	0.0133		0.550	0.500	10.1	20.0
1,2-Dichloroethane	Ave	0.4148	0.4023	0.1000	0.0194	0.0200	-3.0	20.0
Benzene	Ave	1.097	1.052	0.5000	0.0192	0.0200	-4.2	20.0
n-Heptane	Lin1		0.2500		0.0178	0.0200	-10.9	20.0
Trichloroethene	Ave	0.3255	0.3082	0.1500	0.0189	0.0200	-5.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333562/4 Calibration Date: 06/26/2018 16:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900155.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5284	0.1000	0.0195	0.0200	-2.5	20.0
1,2-Dichloropropane	Ave	0.2653	0.2448	0.1000	0.0185	0.0200	-7.7	20.0
Dibromomethane	Ave	0.2138	0.2067		0.0193	0.0200	-3.3	20.0
1,4-Dioxane	Ave	0.0026	0.0029		0.437	0.400	9.3	50.0
Bromodichloromethane	Ave	0.3967	0.3654	0.1500	0.0184	0.0200	-7.9	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1664		0.0342	0.0400	-14.4	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3918	0.1500	0.0178	0.0200	-11.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3571	0.0500	0.0358	0.0400	-10.4	20.0
Toluene	Ave	1.594	1.475	0.4000	0.0185	0.0200	-7.5	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.5093	0.1000	0.0179	0.0200	-10.7	20.0
Ethyl methacrylate	Ave	0.5480	0.4912		0.0179	0.0200	-10.4	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.3026	0.1000	0.0185	0.0200	-7.4	20.0
Tetrachloroethene	Ave	0.4464	0.4221	0.1500	0.0189	0.0200	-5.5	20.0
1,3-Dichloropropane	Ave	0.5796	0.5312		0.0183	0.0200	-8.4	20.0
2-Hexanone	Ave	0.4008	0.3583	0.0500	0.0358	0.0400	-10.6	20.0
Chlorodibromomethane	Ave	0.4086	0.3695		0.0181	0.0200	-9.6	20.0
1,2-Dibromoethane	Ave	0.3604	0.3327		0.0185	0.0200	-7.7	20.0
Chlorobenzene	Ave	0.9882	0.9465	0.3000	0.0192	0.0200	-4.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3742		0.0192	0.0200	-3.8	20.0
Ethylbenzene	Ave	0.5482	0.5303		0.0193	0.0200	-3.3	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6465		0.0193	0.0200	-3.4	20.0
o-Xylene	Ave	0.6616	0.6395		0.0193	0.0200	-3.3	20.0
Styrene	Ave	1.069	1.025	0.3000	0.0192	0.0200	-4.1	20.0
Bromoform	Ave	0.3193	0.2843	0.1000	0.0178	0.0200	-11.0	20.0
Isopropylbenzene	Ave	1.764	1.766	0.1000	0.0200	0.0200	0.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8724	0.3000	0.0187	0.0200	-6.7	20.0
Bromobenzene	Ave	0.7886	0.7418		0.0188	0.0200	-5.9	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2959		0.0184	0.0200	-8.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2713		0.0170	0.0200	-14.9	20.0
N-Propylbenzene	Ave	0.8704	0.8540		0.0196	0.0200	-1.9	20.0
2-Chlorotoluene	Ave	0.7359	0.7238		0.0197	0.0200	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.550		0.0194	0.0200	-2.8	20.0
4-Chlorotoluene	Ave	0.7489	0.7199		0.0192	0.0200	-3.9	20.0
tert-Butylbenzene	Ave	2.330	2.359		0.0203	0.0200	1.3	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.639		0.0197	0.0200	-1.3	20.0
sec-Butylbenzene	Ave	3.316	3.372		0.0203	0.0200	1.7	20.0
1,3-Dichlorobenzene	Ave	1.482	1.456	0.6000	0.0196	0.0200	-1.8	20.0
4-Isopropyltoluene	Ave	2.830	2.904		0.0205	0.0200	2.6	20.0
1,4-Dichlorobenzene	Ave	1.504	1.468	0.5000	0.0195	0.0200	-2.4	20.0
n-Butylbenzene	Ave	2.521	2.664		0.0211	0.0200	5.7	20.0
1,2-Dichlorobenzene	Ave	1.430	1.411	0.4000	0.0197	0.0200	-1.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333562/4 Calibration Date: 06/26/2018 16:49

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900155.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2742	0.0500	0.0184	0.0200	-8.1	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.071	0.2000	0.0201	0.0200	0.5	50.0
Hexachlorobutadiene	Ave	0.5350	0.5678		0.0212	0.0200	6.1	20.0
Naphthalene	Ave	3.272	3.167		0.0194	0.0200	-3.2	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.007		0.0196	0.0200	-2.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2749		0.0197	0.0200	-1.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3383		0.0199	0.0200	-0.6	20.0
Toluene-d8 (Surr)	Ave	1.318	1.287		0.0195	0.0200	-2.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4744		0.0188	0.0200	-5.9	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb012.d BFB Injection Date: 06/28/2018

Instrument ID: A3UX19 BFB Injection Time: 09:22

Analysis Batch No.: 333899

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	1.0	(1.1) 1
174	50.0 - 120.00 % of mass 95	91.2	
175	5.0 - 9.0 % of mass 174	6.7	(7.4) 1
176	95.0 - 101.0 % of mass 174	89.0	(97.6) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-333899/4	U1900243.d	06/28/2018	09:46
	CCVIS 240-333899/5	U1900244.d	06/28/2018	10:09
	LCS 240-333899/6	U1900245.d	06/28/2018	10:31
	MB 240-333899/9	U1900248.d	06/28/2018	11:38
TB-062118	240-97513-1	U1900262.d	06/28/2018	17:11
DMW-3I-062118	240-97513-2	U1900263.d	06/28/2018	17:34
DMW-3D-062118	240-97513-3	U1900264.d	06/28/2018	17:57
DMW-3S-062118	240-97513-4	U1900265.d	06/28/2018	18:19
TB-062218	240-97593-1	U1900268.d	06/28/2018	19:25
MSA-MW-14D-062218	240-97593-2	U1900269.d	06/28/2018	19:47
MSA-MW-14I-062218	240-97593-3	U1900270.d	06/28/2018	20:09
MSA-MW-31D-062218	240-97593-8	U1900271.d	06/28/2018	20:31

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333899/4 Calibration Date: 06/28/2018 09:46

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900243.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0328		0.134	0.200	-32.8*	20.0
Diisopropyl ether	Ave	0.2476	0.2028		0.0164	0.0200	-18.1	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.3965		0.0150	0.0200	-25.2*	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.7140		0.0148	0.0200	-26.2*	20.0
Ethyl acetate	Ave	0.3644	0.2994		0.0329	0.0400	-17.8	50.0
Propionitrile	Ave	0.0588	0.0434		0.148	0.200	-26.2*	20.0
Methacrylonitrile	Ave	0.2550	0.1973		0.155	0.200	-22.6*	20.0
Tert-amyl methyl ether	Ave	1.037	0.7689		0.0148	0.0200	-25.8*	20.0
n-Butanol	Ave	0.0144	0.0101		0.351	0.500	-29.8*	20.0
Ethyl acrylate	Ave	0.4442	0.3859		0.0174	0.0200	-13.1	20.0
Methyl methacrylate	Ave	0.2999	0.2610		0.0348	0.0400	-13.0	20.0
2-Nitropropane	Ave	0.1249	0.0986		0.0316	0.0400	-21.1*	20.0
n-Butyl acetate	Ave	0.7997	0.6462		0.0162	0.0200	-19.2	20.0
1-Chlorohexane	Ave	0.5045	0.4403		0.0175	0.0200	-12.7	20.0
Cyclohexanone	Ave	0.0207	0.0158		0.152	0.200	-24.0*	20.0
Pentachloroethane	Ave	0.4674	0.4100		0.0351	0.0400	-12.3	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.451		0.0166	0.0200	-17.2	20.0
Benzyl chloride	Ave	2.086	1.655		0.0159	0.0200	-20.7*	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.059		0.0164	0.0200	-18.0	20.0
2-Methylnaphthalene	Ave	2.209	1.694		0.0307	0.0400	-23.3*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333899/5 Calibration Date: 06/28/2018 10:09

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900244.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3775	0.1000	0.0175	0.0200	-12.6	20.0
Chloromethane	Ave	0.3784	0.3363	0.1000	0.0178	0.0200	-11.1	20.0
Butadiene	Ave	0.3786	0.3069		0.0162	0.0200	-18.9	20.0
Vinyl chloride	Ave	0.3642	0.3299	0.1000	0.0181	0.0200	-9.4	20.0
Bromomethane	Ave	0.2611	0.2344	0.0500	0.0180	0.0200	-10.2	20.0
Chloroethane	Ave	0.2164	0.1917	0.0500	0.0177	0.0200	-11.4	20.0
Dichlorofluoromethane	Ave	0.5483	0.4921		0.0179	0.0200	-10.3	20.0
Trichlorofluoromethane	Ave	0.5209	0.4684	0.1000	0.0180	0.0200	-10.1	20.0
Ethyl ether	Ave	0.2320	0.2048		0.0177	0.0200	-11.7	20.0
Acrolein	Ave	0.0591	0.0427		0.0722	0.100	-27.8	50.0
1,1-Dichloroethene	Ave	0.4455	0.3937	0.1000	0.0177	0.0200	-11.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2465	0.0500	0.0164	0.0200	-18.1	20.0
Acetone	Lin1		0.0839	0.0100	0.0356	0.0400	-11.1	50.0
Iodomethane	Ave	0.4765	0.4396		0.0184	0.0200	-7.8	20.0
Carbon disulfide	Ave	0.8603	0.7693	0.1000	0.0179	0.0200	-10.6	20.0
3-Chloro-1-propene	Ave	0.4938	0.4161		0.0169	0.0200	-15.7	20.0
Methyl acetate	Ave	0.2872	0.2508	0.1000	0.0349	0.0400	-12.7	20.0
Methylene Chloride	Ave	0.3819	0.3362	0.1000	0.0176	0.0200	-12.0	50.0
tert-Butyl alcohol	Ave	0.0325	0.0285		0.176	0.200	-12.2	50.0
Acrylonitrile	Ave	0.1230	0.1058		0.172	0.200	-14.0	20.0
Methyl tert-butyl ether	Ave	0.8387	0.7756	0.1000	0.0185	0.0200	-7.5	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.3793	0.1000	0.0183	0.0200	-8.3	20.0
Hexane	Ave	0.4628	0.3631		0.0157	0.0200	-21.6*	20.0
1,1-Dichloroethane	Ave	0.5077	0.4771	0.2000	0.0188	0.0200	-6.0	20.0
Vinyl acetate	Ave	0.5255	0.4654		0.0177	0.0200	-11.4	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3015	0.1000	0.0188	0.0200	-5.8	20.0
2,2-Dichloropropane	Ave	0.3856	0.3627		0.0188	0.0200	-5.9	20.0
2-Butanone (MEK)	Ave	0.0449	0.0405	0.0100	0.0361	0.0400	-9.8	20.0
Bromochloromethane	Ave	0.2318	0.2212		0.0191	0.0200	-4.5	20.0
Tetrahydrofuran	Ave	0.1273	0.1169		0.0367	0.0400	-8.2	20.0
Chloroform	Ave	0.5158	0.4833	0.2000	0.0187	0.0200	-6.3	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4375	0.1000	0.0180	0.0200	-10.1	20.0
Cyclohexane	Ave	0.4471	0.3835	0.1000	0.0172	0.0200	-14.2	20.0
1,1-Dichloropropene	Ave	0.4125	0.3578		0.0173	0.0200	-13.3	20.0
Carbon tetrachloride	Lin1		0.3875	0.1000	0.0170	0.0200	-15.1	20.0
Isobutyl alcohol	Ave	0.0121	0.0122		0.505	0.500	1.0	20.0
1,2-Dichloroethane	Ave	0.4148	0.3814	0.1000	0.0184	0.0200	-8.1	20.0
Benzene	Ave	1.097	0.9882	0.5000	0.0180	0.0200	-9.9	20.0
n-Heptane	Lin1		0.2198		0.0153	0.0200	-23.4*	20.0
Trichloroethene	Ave	0.3255	0.2843	0.1500	0.0175	0.0200	-12.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333899/5 Calibration Date: 06/28/2018 10:09

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900244.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.4578	0.1000	0.0169	0.0200	-15.6	20.0
1,2-Dichloropropane	Ave	0.2653	0.2255	0.1000	0.0170	0.0200	-15.0	20.0
Dibromomethane	Ave	0.2138	0.1878		0.0176	0.0200	-12.2	20.0
1,4-Dioxane	Ave	0.0026	0.0028		0.431	0.400	7.8	50.0
Bromodichloromethane	Ave	0.3967	0.3414	0.1500	0.0172	0.0200	-13.9	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1431		0.0294	0.0400	-26.4*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3498	0.1500	0.0159	0.0200	-20.6*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3231	0.0500	0.0324	0.0400	-18.9	20.0
Toluene	Ave	1.594	1.415	0.4000	0.0178	0.0200	-11.2	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4594	0.1000	0.0161	0.0200	-19.5	20.0
Ethyl methacrylate	Ave	0.5480	0.4631		0.0169	0.0200	-15.5	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.2840	0.1000	0.0174	0.0200	-13.1	20.0
Tetrachloroethene	Ave	0.4464	0.3885	0.1500	0.0174	0.0200	-13.0	20.0
1,3-Dichloropropane	Ave	0.5796	0.4949		0.0171	0.0200	-14.6	20.0
2-Hexanone	Ave	0.4008	0.3343	0.0500	0.0334	0.0400	-16.6	20.0
Chlorodibromomethane	Ave	0.4086	0.3542		0.0173	0.0200	-13.3	20.0
1,2-Dibromoethane	Ave	0.3604	0.3121		0.0173	0.0200	-13.4	20.0
Chlorobenzene	Ave	0.9882	0.9076	0.3000	0.0184	0.0200	-8.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3740		0.0192	0.0200	-3.9	20.0
Ethylbenzene	Ave	0.5482	0.5106		0.0186	0.0200	-6.9	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6258		0.0187	0.0200	-6.5	20.0
o-Xylene	Ave	0.6616	0.6363		0.0192	0.0200	-3.8	20.0
Styrene	Ave	1.069	1.000	0.3000	0.0187	0.0200	-6.5	20.0
Bromoform	Ave	0.3193	0.2639	0.1000	0.0165	0.0200	-17.4	20.0
Isopropylbenzene	Ave	1.764	1.727	0.1000	0.0196	0.0200	-2.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8457	0.3000	0.0181	0.0200	-9.6	20.0
Bromobenzene	Ave	0.7886	0.6968		0.0177	0.0200	-11.6	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2911		0.0181	0.0200	-9.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2475		0.0155	0.0200	-22.4*	20.0
N-Propylbenzene	Ave	0.8704	0.7974		0.0183	0.0200	-8.4	20.0
2-Chlorotoluene	Ave	0.7359	0.6916		0.0188	0.0200	-6.0	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.427		0.0185	0.0200	-7.6	20.0
4-Chlorotoluene	Ave	0.7489	0.6914		0.0185	0.0200	-7.7	20.0
tert-Butylbenzene	Ave	2.330	2.180		0.0187	0.0200	-6.4	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.535		0.0190	0.0200	-5.2	20.0
sec-Butylbenzene	Ave	3.316	3.179		0.0192	0.0200	-4.1	20.0
1,3-Dichlorobenzene	Ave	1.482	1.401	0.6000	0.0189	0.0200	-5.5	20.0
4-Isopropyltoluene	Ave	2.830	2.723		0.0192	0.0200	-3.8	20.0
1,4-Dichlorobenzene	Ave	1.504	1.388	0.5000	0.0185	0.0200	-7.7	20.0
n-Butylbenzene	Ave	2.521	2.534		0.0201	0.0200	0.5	20.0
1,2-Dichlorobenzene	Ave	1.430	1.364	0.4000	0.0191	0.0200	-4.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-333899/5 Calibration Date: 06/28/2018 10:09

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900244.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2461	0.0500	0.0165	0.0200	-17.5	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.041	0.2000	0.0195	0.0200	-2.4	50.0
Hexachlorobutadiene	Ave	0.5350	0.5360		0.0200	0.0200	0.2	20.0
Naphthalene	Ave	3.272	3.113		0.0190	0.0200	-4.9	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.004		0.0195	0.0200	-2.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2811		0.0201	0.0200	0.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3322		0.0195	0.0200	-2.4	20.0
Toluene-d8 (Surr)	Ave	1.318	1.301		0.0197	0.0200	-1.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4727		0.0188	0.0200	-6.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb015.d BFB Injection Date: 07/02/2018

Instrument ID: A3UX19 BFB Injection Time: 14:52

Analysis Batch No.: 334440

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.9	(1.0) 1
174	50.0 - 120.00 % of mass 95	85.5	
175	5.0 - 9.0 % of mass 174	6.6	(7.7) 1
176	95.0 - 101.0 % of mass 174	85.3	(99.7) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-334440/2	U1900336.d	07/02/2018	15:20
	CCVIS 240-334440/3	U1900337.d	07/02/2018	15:42
	LCS 240-334440/4	U1900338.d	07/02/2018	16:04
	MB 240-334440/7	U1900341.d	07/02/2018	17:11
TB-062618	240-97762-1	U1900348.d	07/02/2018	19:47
MSA-MW-50D-062618	240-97762-2	U1900349.d	07/02/2018	20:09
MSA-MW-50D-062618 MS	240-97762-2 MS	U1900350.d	07/02/2018	20:32
MSA-MW-50D-062618 MSD	240-97762-2 MSD	U1900351.d	07/02/2018	20:54
MSA-MW-50I-062618	240-97762-3	U1900353.d	07/02/2018	21:39
MSA-MW-50S-062618	240-97762-4	U1900354.d	07/02/2018	22:01
MSA-MW-52S-062618	240-97762-5	U1900355.d	07/02/2018	22:24

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334440/2 Calibration Date: 07/02/2018 15:20

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900336.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0331		0.135	0.200	-32.3*	20.0
Diisopropyl ether	Ave	0.2476	0.2465		0.0199	0.0200	-0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4746		0.0179	0.0200	-10.4	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8564		0.0177	0.0200	-11.5	20.0
Ethyl acetate	Ave	0.3644	0.2812		0.0309	0.0400	-22.8	50.0
Propionitrile	Ave	0.0588	0.0461		0.157	0.200	-21.5*	20.0
Methacrylonitrile	Ave	0.2550	0.2003		0.157	0.200	-21.4*	20.0
Tert-amyl methyl ether	Ave	1.037	0.8894		0.0172	0.0200	-14.2	20.0
n-Butanol	Ave	0.0144	0.0120		0.414	0.500	-17.1	20.0
Ethyl acrylate	Ave	0.4442	0.3142		0.0141	0.0200	-29.3*	20.0
Methyl methacrylate	Ave	0.2999	0.2198		0.0293	0.0400	-26.7*	20.0
2-Nitropropane	Ave	0.1249	0.0848		0.0272	0.0400	-32.1*	20.0
n-Butyl acetate	Ave	0.7997	0.6557		0.0164	0.0200	-18.0	20.0
1-Chlorohexane	Ave	0.5045	0.5001		0.0198	0.0200	-0.9	20.0
Cyclohexanone	Ave	0.0207	0.0166		0.160	0.200	-20.2*	20.0
Pentachloroethane	Ave	0.4674	0.4474		0.0383	0.0400	-4.3	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.620		0.0177	0.0200	-11.5	20.0
Benzyl chloride	Ave	2.086	1.758		0.0169	0.0200	-15.7	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.241		0.0192	0.0200	-3.9	20.0
2-Methylnaphthalene	Ave	2.209	1.996		0.0361	0.0400	-9.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.4330	0.1000	0.0200	0.0200	0.2	20.0
Chloromethane	Ave	0.3784	0.3552	0.1000	0.0188	0.0200	-6.1	20.0
Butadiene	Ave	0.3786	0.3556		0.0188	0.0200	-6.1	20.0
Vinyl chloride	Ave	0.3642	0.3604	0.1000	0.0198	0.0200	-1.1	20.0
Bromomethane	Ave	0.2611	0.2523	0.0500	0.0193	0.0200	-3.4	20.0
Chloroethane	Ave	0.2164	0.2158	0.0500	0.0199	0.0200	-0.3	20.0
Dichlorofluoromethane	Ave	0.5483	0.5176		0.0189	0.0200	-5.6	20.0
Trichlorofluoromethane	Ave	0.5209	0.5239	0.1000	0.0201	0.0200	0.6	20.0
Ethyl ether	Ave	0.2320	0.2140		0.0185	0.0200	-7.7	20.0
Acrolein	Ave	0.0591	0.0459		0.0776	0.100	-22.4	50.0
1,1-Dichloroethene	Ave	0.4455	0.4207	0.1000	0.0189	0.0200	-5.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2861	0.0500	0.0190	0.0200	-5.0	20.0
Acetone	Lin1		0.1106	0.0100	0.0480	0.0400	20.0	50.0
Iodomethane	Ave	0.4765	0.4541		0.0191	0.0200	-4.7	20.0
Carbon disulfide	Ave	0.8603	0.8009	0.1000	0.0186	0.0200	-6.9	20.0
3-Chloro-1-propene	Ave	0.4938	0.4330		0.0175	0.0200	-12.3	20.0
Methyl acetate	Ave	0.2872	0.2793	0.1000	0.0389	0.0400	-2.8	20.0
Methylene Chloride	Ave	0.3819	0.3392	0.1000	0.0178	0.0200	-11.2	50.0
tert-Butyl alcohol	Ave	0.0325	0.0380		0.234	0.200	16.9	50.0
Acrylonitrile	Ave	0.1230	0.1298		0.211	0.200	5.5	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8176	0.1000	0.0195	0.0200	-2.5	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.3888	0.1000	0.0188	0.0200	-6.0	20.0
Hexane	Ave	0.4628	0.4006		0.0173	0.0200	-13.5	20.0
1,1-Dichloroethane	Ave	0.5077	0.4811	0.2000	0.0189	0.0200	-5.3	20.0
Vinyl acetate	Ave	0.5255	0.4376		0.0167	0.0200	-16.7	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3131	0.1000	0.0196	0.0200	-2.2	20.0
2,2-Dichloropropane	Ave	0.3856	0.3532		0.0183	0.0200	-8.4	20.0
2-Butanone (MEK)	Ave	0.0449	0.0425	0.0100	0.0379	0.0400	-5.4	20.0
Bromochloromethane	Ave	0.2318	0.2353		0.0203	0.0200	1.5	20.0
Tetrahydrofuran	Ave	0.1273	0.1128		0.0354	0.0400	-11.4	20.0
Chloroform	Ave	0.5158	0.4953	0.2000	0.0192	0.0200	-4.0	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4453	0.1000	0.0183	0.0200	-8.5	20.0
Cyclohexane	Ave	0.4471	0.4302	0.1000	0.0192	0.0200	-3.8	20.0
1,1-Dichloropropene	Ave	0.4125	0.3798		0.0184	0.0200	-7.9	20.0
Carbon tetrachloride	Lin1		0.4066	0.1000	0.0178	0.0200	-10.9	20.0
Isobutyl alcohol	Ave	0.0121	0.0132		0.549	0.500	9.7	20.0
1,2-Dichloroethane	Ave	0.4148	0.3796	0.1000	0.0183	0.0200	-8.5	20.0
Benzene	Ave	1.097	1.020	0.5000	0.0186	0.0200	-7.0	20.0
n-Heptane	Lin1		0.2323		0.0164	0.0200	-18.2	20.0
Trichloroethene	Ave	0.3255	0.2989	0.1500	0.0184	0.0200	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5189	0.1000	0.0191	0.0200	-4.3	20.0
1,2-Dichloropropane	Ave	0.2653	0.2267	0.1000	0.0171	0.0200	-14.6	20.0
Dibromomethane	Ave	0.2138	0.1966		0.0184	0.0200	-8.0	20.0
1,4-Dioxane	Ave	0.0026	0.0029		0.448	0.400	11.9	50.0
Bromodichloromethane	Ave	0.3967	0.3447	0.1500	0.0174	0.0200	-13.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1438		0.0296	0.0400	-26.0*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3498	0.1500	0.0159	0.0200	-20.7*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3139	0.0500	0.0315	0.0400	-21.2*	20.0
Toluene	Ave	1.594	1.449	0.4000	0.0182	0.0200	-9.1	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4589	0.1000	0.0161	0.0200	-19.5	20.0
Ethyl methacrylate	Ave	0.5480	0.4593		0.0168	0.0200	-16.2	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.2909	0.1000	0.0178	0.0200	-11.0	20.0
Tetrachloroethene	Ave	0.4464	0.4072	0.1500	0.0182	0.0200	-8.8	20.0
1,3-Dichloropropane	Ave	0.5796	0.4938		0.0170	0.0200	-14.8	20.0
2-Hexanone	Ave	0.4008	0.3220	0.0500	0.0321	0.0400	-19.7	20.0
Chlorodibromomethane	Ave	0.4086	0.3572		0.0175	0.0200	-12.6	20.0
1,2-Dibromoethane	Ave	0.3604	0.3078		0.0171	0.0200	-14.6	20.0
Chlorobenzene	Ave	0.9882	0.9168	0.3000	0.0186	0.0200	-7.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3861		0.0198	0.0200	-0.8	20.0
Ethylbenzene	Ave	0.5482	0.5202		0.0190	0.0200	-5.1	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6297		0.0188	0.0200	-5.9	20.0
o-Xylene	Ave	0.6616	0.6468		0.0196	0.0200	-2.2	20.0
Styrene	Ave	1.069	1.011	0.3000	0.0189	0.0200	-5.4	20.0
Bromoform	Ave	0.3193	0.2722	0.1000	0.0170	0.0200	-14.8	20.0
Isopropylbenzene	Ave	1.764	1.764	0.1000	0.0200	0.0200	-0.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8381	0.3000	0.0179	0.0200	-10.4	20.0
Bromobenzene	Ave	0.7886	0.6972		0.0177	0.0200	-11.6	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2876		0.0179	0.0200	-10.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2372		0.0149	0.0200	-25.6*	20.0
N-Propylbenzene	Ave	0.8704	0.8306		0.0191	0.0200	-4.6	20.0
2-Chlorotoluene	Ave	0.7359	0.7025		0.0191	0.0200	-4.5	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.497		0.0190	0.0200	-4.9	20.0
4-Chlorotoluene	Ave	0.7489	0.6947		0.0186	0.0200	-7.2	20.0
tert-Butylbenzene	Ave	2.330	2.228		0.0191	0.0200	-4.4	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.593		0.0194	0.0200	-3.1	20.0
sec-Butylbenzene	Ave	3.316	3.330		0.0201	0.0200	0.4	20.0
1,3-Dichlorobenzene	Ave	1.482	1.421	0.6000	0.0192	0.0200	-4.2	20.0
4-Isopropyltoluene	Ave	2.830	2.863		0.0202	0.0200	1.2	20.0
1,4-Dichlorobenzene	Ave	1.504	1.427	0.5000	0.0190	0.0200	-5.1	20.0
n-Butylbenzene	Ave	2.521	2.633		0.0209	0.0200	4.5	20.0
1,2-Dichlorobenzene	Ave	1.430	1.391	0.4000	0.0195	0.0200	-2.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2614	0.0500	0.0175	0.0200	-12.4	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.078	0.2000	0.0202	0.0200	1.1	50.0
Hexachlorobutadiene	Ave	0.5350	0.5577		0.0209	0.0200	4.3	20.0
Naphthalene	Ave	3.272	3.216		0.0197	0.0200	-1.7	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.047		0.0203	0.0200	1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2845		0.0204	0.0200	1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3317		0.0195	0.0200	-2.6	20.0
Toluene-d8 (Surr)	Ave	1.318	1.304		0.0198	0.0200	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4658		0.0185	0.0200	-7.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: bfb016.d BFB Injection Date: 07/03/2018

Instrument ID: A3UX19 BFB Injection Time: 14:47

Analysis Batch No.: 334645

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.6	
75	30.0 - 60.0 % of mass 95	51.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	50.0 - 120.00 % of mass 95	92.3	
175	5.0 - 9.0 % of mass 174	6.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	88.1	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-334645/2	U1900364.d	07/03/2018	15:13
	CCVIS 240-334645/3	U1900365.d	07/03/2018	15:36
	LCS 240-334645/4	U1900366.d	07/03/2018	15:58
	MB 240-334645/7	U1900369.d	07/03/2018	17:05
MSA-MW-52S-062618	240-97762-5	U1900373.d	07/03/2018	18:35
MSA-MW-52I-062618	240-97762-6	U1900374.d	07/03/2018	18:57
MSA-MW-52D-062618	240-97762-7	U1900375.d	07/03/2018	19:19

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334645/2 Calibration Date: 07/03/2018 15:13

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900364.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0411		0.168	0.200	-15.8	20.0
Diisopropyl ether	Ave	0.2476	0.2490		0.0201	0.0200	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4970		0.0188	0.0200	-6.2	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8918		0.0184	0.0200	-7.9	20.0
Ethyl acetate	Ave	0.3644	0.2608		0.0286	0.0400	-28.4	50.0
Propionitrile	Ave	0.0588	0.0526		0.179	0.200	-10.5	20.0
Methacrylonitrile	Ave	0.2550	0.1945		0.153	0.200	-23.7*	20.0
Tert-amyl methyl ether	Ave	1.037	0.9299		0.0179	0.0200	-10.3	20.0
n-Butanol	Ave	0.0144	0.0135		0.468	0.500	-6.3	20.0
Ethyl acrylate	Ave	0.4442	0.2788		0.0126	0.0200	-37.2*	20.0
Methyl methacrylate	Ave	0.2999	0.2033		0.0271	0.0400	-32.2*	20.0
2-Nitropropane	Ave	0.1249	0.0807		0.0258	0.0400	-35.4*	20.0
n-Butyl acetate	Ave	0.7997	0.6141		0.0154	0.0200	-23.2*	20.0
1-Chlorohexane	Ave	0.5045	0.4812		0.0191	0.0200	-4.6	20.0
Cyclohexanone	Ave	0.0207	0.0242		0.233	0.200	16.7	20.0
Pentachloroethane	Ave	0.4674	0.4980		0.0426	0.0400	6.5	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.911		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Ave	2.086	1.747		0.0168	0.0200	-16.2	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.419		0.0220	0.0200	9.9	20.0
2-Methylnaphthalene	Ave	2.209	2.322		0.0420	0.0400	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3914	0.1000	0.0181	0.0200	-9.4	20.0
Chloromethane	Ave	0.3784	0.3394	0.1000	0.0179	0.0200	-10.3	20.0
Butadiene	Ave	0.3786	0.3286		0.0174	0.0200	-13.2	20.0
Vinyl chloride	Ave	0.3642	0.3381	0.1000	0.0186	0.0200	-7.2	20.0
Bromomethane	Ave	0.2611	0.2544	0.0500	0.0195	0.0200	-2.5	20.0
Chloroethane	Ave	0.2164	0.2099	0.0500	0.0194	0.0200	-3.0	20.0
Dichlorofluoromethane	Ave	0.5483	0.5231		0.0191	0.0200	-4.6	20.0
Trichlorofluoromethane	Ave	0.5209	0.4920	0.1000	0.0189	0.0200	-5.6	20.0
Ethyl ether	Ave	0.2320	0.2243		0.0193	0.0200	-3.3	20.0
Acrolein	Ave	0.0591	0.0613		0.104	0.100	3.7	50.0
1,1-Dichloroethene	Ave	0.4455	0.4040	0.1000	0.0181	0.0200	-9.3	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2651	0.0500	0.0176	0.0200	-11.9	20.0
Acetone	Lin1		0.1204	0.0100	0.0526	0.0400	31.4	50.0
Iodomethane	Ave	0.4765	0.4686		0.0197	0.0200	-1.7	20.0
Carbon disulfide	Ave	0.8603	0.7753	0.1000	0.0180	0.0200	-9.9	20.0
3-Chloro-1-propene	Ave	0.4938	0.4365		0.0177	0.0200	-11.6	20.0
Methyl acetate	Ave	0.2872	0.2668	0.1000	0.0372	0.0400	-7.1	20.0
Methylene Chloride	Ave	0.3819	0.3645	0.1000	0.0191	0.0200	-4.5	50.0
tert-Butyl alcohol	Ave	0.0325	0.0486		0.299	0.200	49.7	50.0
Acrylonitrile	Ave	0.1230	0.1321		0.215	0.200	7.4	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.4004	0.1000	0.0194	0.0200	-3.2	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8553	0.1000	0.0204	0.0200	2.0	20.0
Hexane	Ave	0.4628	0.3700		0.0160	0.0200	-20.1*	20.0
1,1-Dichloroethane	Ave	0.5077	0.4980	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.5255	0.5227		0.0199	0.0200	-0.5	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3286	0.1000	0.0205	0.0200	2.6	20.0
2,2-Dichloropropane	Ave	0.3856	0.3781		0.0196	0.0200	-1.9	20.0
2-Butanone (MEK)	Ave	0.0449	0.0413	0.0100	0.0368	0.0400	-8.0	20.0
Bromochloromethane	Ave	0.2318	0.2477		0.0214	0.0200	6.9	20.0
Tetrahydrofuran	Ave	0.1273	0.1102		0.0346	0.0400	-13.5	20.0
Chloroform	Ave	0.5158	0.5276	0.2000	0.0205	0.0200	2.3	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4531	0.1000	0.0186	0.0200	-6.9	20.0
Cyclohexane	Ave	0.4471	0.4024	0.1000	0.0180	0.0200	-10.0	20.0
1,1-Dichloropropene	Ave	0.4125	0.3736		0.0181	0.0200	-9.4	20.0
Carbon tetrachloride	Lin1		0.4007	0.1000	0.0176	0.0200	-12.2	20.0
Isobutyl alcohol	Ave	0.0121	0.0148		0.612	0.500	22.4*	20.0
Benzene	Ave	1.097	1.031	0.5000	0.0188	0.0200	-6.1	20.0
1,2-Dichloroethane	Ave	0.4148	0.3965	0.1000	0.0191	0.0200	-4.4	20.0
n-Heptane	Lin1		0.2166		0.0151	0.0200	-24.7*	20.0
Trichloroethene	Ave	0.3255	0.2894	0.1500	0.0178	0.0200	-11.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.4919	0.1000	0.0181	0.0200	-9.3	20.0
1,2-Dichloropropane	Ave	0.2653	0.2318	0.1000	0.0175	0.0200	-12.6	20.0
Dibromomethane	Ave	0.2138	0.2007		0.0188	0.0200	-6.1	20.0
1,4-Dioxane	Ave	0.0026	0.0033		0.510	0.400	27.5	50.0
Bromodichloromethane	Ave	0.3967	0.3531	0.1500	0.0178	0.0200	-11.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1249		0.0257	0.0400	-35.8*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3370	0.1500	0.0153	0.0200	-23.6*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3017	0.0500	0.0303	0.0400	-24.3*	20.0
Toluene	Ave	1.594	1.479	0.4000	0.0186	0.0200	-7.2	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4552	0.1000	0.0160	0.0200	-20.2*	20.0
Ethyl methacrylate	Ave	0.5480	0.4468		0.0163	0.0200	-18.5	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.3006	0.1000	0.0184	0.0200	-8.0	20.0
Tetrachloroethene	Ave	0.4464	0.4089	0.1500	0.0183	0.0200	-8.4	20.0
1,3-Dichloropropane	Ave	0.5796	0.4984		0.0172	0.0200	-14.0	20.0
2-Hexanone	Ave	0.4008	0.3037	0.0500	0.0303	0.0400	-24.2*	20.0
Chlorodibromomethane	Ave	0.4086	0.3740		0.0183	0.0200	-8.5	20.0
1,2-Dibromoethane	Ave	0.3604	0.3102		0.0172	0.0200	-13.9	20.0
Chlorobenzene	Ave	0.9882	0.9337	0.3000	0.0189	0.0200	-5.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.4208		0.0216	0.0200	8.1	20.0
Ethylbenzene	Ave	0.5482	0.5243		0.0191	0.0200	-4.4	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6379		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.6616	0.6847		0.0207	0.0200	3.5	20.0
Styrene	Ave	1.069	1.019	0.3000	0.0191	0.0200	-4.6	20.0
Bromoform	Ave	0.3193	0.2719	0.1000	0.0170	0.0200	-14.9	20.0
Isopropylbenzene	Ave	1.764	1.824	0.1000	0.0207	0.0200	3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8621	0.3000	0.0184	0.0200	-7.8	20.0
Bromobenzene	Ave	0.7886	0.7164		0.0182	0.0200	-9.2	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2874		0.0179	0.0200	-10.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2226		0.0140	0.0200	-30.2*	20.0
N-Propylbenzene	Ave	0.8704	0.8214		0.0189	0.0200	-5.6	20.0
2-Chlorotoluene	Ave	0.7359	0.7243		0.0197	0.0200	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.563		0.0195	0.0200	-2.4	20.0
4-Chlorotoluene	Ave	0.7489	0.6907		0.0184	0.0200	-7.8	20.0
tert-Butylbenzene	Ave	2.330	2.267		0.0195	0.0200	-2.7	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.693		0.0201	0.0200	0.7	20.0
sec-Butylbenzene	Ave	3.316	3.319		0.0200	0.0200	0.0	20.0
1,3-Dichlorobenzene	Ave	1.482	1.445	0.6000	0.0195	0.0200	-2.5	20.0
4-Isopropyltoluene	Ave	2.830	2.853		0.0202	0.0200	0.8	20.0
1,4-Dichlorobenzene	Ave	1.504	1.438	0.5000	0.0191	0.0200	-4.4	20.0
n-Butylbenzene	Ave	2.521	2.607		0.0207	0.0200	3.4	20.0
1,2-Dichlorobenzene	Ave	1.430	1.458	0.4000	0.0204	0.0200	2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2651	0.0500	0.0178	0.0200	-11.1	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.229	0.2000	0.0230	0.0200	15.2	50.0
Hexachlorobutadiene	Ave	0.5350	0.5692		0.0213	0.0200	6.4	20.0
Naphthalene	Ave	3.272	3.599		0.0220	0.0200	10.0	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.201		0.0233	0.0200	16.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.3050		0.0219	0.0200	9.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3633		0.0213	0.0200	6.7	20.0
Toluene-d8 (Surr)	Ave	1.318	1.387		0.0210	0.0200	5.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4892		0.0194	0.0200	-3.0	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: ICIS 240-332816/11 Date Analyzed: 06/21/2018 20:50

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900005.d Heated Purge: (Y/N) N

Calibration ID: 45627

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		948753	5.65	686542	8.50	386629	10.88
UPPER LIMIT		1897506	6.15	1373084	9.00	773258	11.38
LOWER LIMIT		474377	5.15	343271	8.00	193315	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-332816/15		976689	5.65	748860	8.50	417760	10.88
ICV 240-332816/24		980224	5.65	730378	8.50	401203	10.88
CCVIS 240-333371/4		807581	5.65	592687	8.50	336890	10.88
CCVIS 240-333562/4		769669	5.65	545505	8.50	312524	10.88
CCVIS 240-333899/5		669732	5.65	454384	8.50	268526	10.88
CCVIS 240-334440/3		650289	5.65	440087	8.50	260160	10.88
CCVIS 240-334645/3		717785	5.65	458822	8.50	274477	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 240-333371/4 Date Analyzed: 06/25/2018 19:49

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900126.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		807581	5.65	592687	8.50	336890	10.88
UPPER LIMIT		1615162	6.15	1185374	9.00	673780	11.38
LOWER LIMIT		403791	5.15	296344	8.00	168445	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-333371/5		780221	5.65	546064	8.50	309504	10.88
MB 240-333371/8		742103	5.65	509112	8.50	293270	10.88
240-97405-1	TB-062018	712525	5.65	469499	8.50	280291	10.88
240-97405-2	DMW-6I-0620118	710018	5.65	487006	8.50	279728	10.88
240-97405-3	DMW-6D-0620118	701027	5.65	482820	8.50	280401	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 240-333562/4 Date Analyzed: 06/26/2018 16:49

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900155.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		769669	5.65	545505	8.50	312524	10.88
UPPER LIMIT		1539338	6.15	1091010	9.00	625048	11.38
LOWER LIMIT		384835	5.15	272753	8.00	156262	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-333562/5		764069	5.65	536140	8.50	306902	10.88
MB 240-333562/8		729502	5.65	493471	8.50	280042	10.88
240-97405-4	DMW-6S-0620118	710921	5.65	479453	8.50	266437	10.88
240-97405-5	MSA-MW-30D-0620118	723329	5.65	484154	8.50	269570	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 240-333899/5 Date Analyzed: 06/28/2018 10:09

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900244.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		669732	5.65	454384	8.50	268526	10.88
UPPER LIMIT		1339464	6.15	908768	9.00	537052	11.38
LOWER LIMIT		334866	5.15	227192	8.00	134263	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-333899/6		727067	5.65	528910	8.50	304340	10.88
MB 240-333899/9		635877	5.65	432407	8.50	252364	10.88
240-97513-1	TB-062118	605435	5.65	401447	8.50	245211	10.88
240-97513-2	DMW-3I-062118	658579	5.65	472051	8.50	259127	10.88
240-97513-3	DMW-3D-062118	617673	5.65	416342	8.50	243283	10.88
240-97513-4	DMW-3S-062118	646275	5.65	469685	8.50	260001	10.88
240-97593-1	TB-062218	607160	5.65	408884	8.50	237626	10.88
240-97593-2	MSA-MW-14D-062218	624633	5.65	439579	8.50	242568	10.88
240-97593-3	MSA-MW-14I-062218	640614	5.65	452920	8.50	253194	10.88
240-97593-8	MSA-MW-31D-062218	592036	5.65	398954	8.50	229549	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 240-334440/3 Date Analyzed: 07/02/2018 15:42

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900337.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		650289	5.65	440087	8.50	260160	10.88
UPPER LIMIT		1300578	6.15	880174	9.00	520320	11.38
LOWER LIMIT		325145	5.15	220044	8.00	130080	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-334440/4		680496	5.65	486126	8.50	279294	10.88
MB 240-334440/7		576983	5.65	375283	8.50	221616	10.88
240-97762-1	TB-062618	539871	5.65	334621	8.50	200796	10.88
240-97762-2	MSA-MW-50D-062618	538109	5.65	332569	8.50	201021	10.88
240-97762-2 MS	MSA-MW-50D-062618 MS	563985	5.65	363410	8.50	214481	10.88
240-97762-2 MSD	MSA-MW-50D-062618 MSD	573701	5.65	366733	8.50	217684	10.88
240-97762-3	MSA-MW-50I-062618	534679	5.65	335749	8.50	204754	10.88
240-97762-4	MSA-MW-50S-062618	534166	5.65	334411	8.50	193133	10.88
240-97762-5	MSA-MW-52S-062618	549481	5.65	366759	8.50	216780	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 240-334645/3 Date Analyzed: 07/03/2018 15:36

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900365.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		717785	5.65	458822	8.50	274477	10.88
UPPER LIMIT		1435570	6.15	917644	9.00	548954	11.38
LOWER LIMIT		358893	5.15	229411	8.00	137239	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-334645/4		778831	5.65	532007	8.50	316914	10.88
MB 240-334645/7		650977	5.65	401590	8.50	239821	10.88
240-97762-5	MSA-MW-52S-062618	699397	5.65	465736	8.50	271917	10.88
240-97762-6	MSA-MW-52I-062618	654461	5.65	410223	8.50	241348	10.88
240-97762-7	MSA-MW-52D-062618	705424	5.65	485243	8.50	279673	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 06/21/2018 18:54

Analysis Batch Number: 332816 End Date: 06/22/2018 02:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-332816/2		06/21/2018 18:54	1	bfb004.d	DB-624 0.18(mm)
STD8260 240-332816/8 IC		06/21/2018 19:43	1	U1900002.d	DB-624 0.18(mm)
STD8260 240-332816/9 IC		06/21/2018 20:05	1	U1900003.d	DB-624 0.18(mm)
STD8260 240-332816/10 IC		06/21/2018 20:28	1	U1900004.d	DB-624 0.18(mm)
ICIS 240-332816/11		06/21/2018 20:50	1	U1900005.d	DB-624 0.18(mm)
STD8260 240-332816/12 IC		06/21/2018 21:12	1	U1900006.d	DB-624 0.18(mm)
STD8260 240-332816/13 IC		06/21/2018 21:35	1	U1900007.d	DB-624 0.18(mm)
STD8260 240-332816/14 IC		06/21/2018 21:57	1	U1900008.d	DB-624 0.18(mm)
ICV 240-332816/15		06/21/2018 22:19	1	U1900009.d	DB-624 0.18(mm)
MRL 240-332816/16 MDLV		06/21/2018 22:41	1		DB-624 0.18(mm)
MDLV 240-332816/17		06/21/2018 23:03	1		DB-624 0.18(mm)
STDA9 240-332816/18 IC		06/21/2018 23:25	1	U1900012.d	DB-624 0.18(mm)
STDA9 240-332816/19 IC		06/21/2018 23:47	1	U1900013.d	DB-624 0.18(mm)
STDA9 240-332816/20 IC		06/22/2018 00:09	1	U1900014.d	DB-624 0.18(mm)
STDA9 240-332816/21 IC		06/22/2018 00:31	1	U1900015.d	DB-624 0.18(mm)
STDA9 240-332816/22 IC		06/22/2018 00:54	1	U1900016.d	DB-624 0.18(mm)
STDA9 240-332816/23 IC		06/22/2018 01:16	1	U1900017.d	DB-624 0.18(mm)
ICV 240-332816/24		06/22/2018 01:38	1	U1900018.d	DB-624 0.18(mm)
MRL 240-332816/25 MDLV		06/22/2018 02:00	1		DB-624 0.18(mm)
MDLV 240-332816/26		06/22/2018 02:22	1		DB-624 0.18(mm)
ZZZZZ		06/22/2018 02:44	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 06/25/2018 19:04

Analysis Batch Number: 333371 End Date: 06/26/2018 04:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-333371/1		06/25/2018 19:04	1	bfb007.d	DB-624 0.18(mm)
CCV 240-333371/3		06/25/2018 19:27	1	U1900125.d	DB-624 0.18(mm)
CCVIS 240-333371/4		06/25/2018 19:49	1	U1900126.d	DB-624 0.18(mm)
LCS 240-333371/5		06/25/2018 20:11	1	U1900127.d	DB-624 0.18(mm)
MRL 240-333371/6 MDLV		06/25/2018 20:34	1		DB-624 0.18(mm)
MRL 240-333371/7 MDLV		06/25/2018 20:56	1		DB-624 0.18(mm)
MB 240-333371/8		06/25/2018 21:18	1	U1900130.d	DB-624 0.18(mm)
ZZZZZ		06/25/2018 21:41	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 22:03	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 22:25	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 22:47	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 23:09	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 23:32	1		DB-624 0.18(mm)
ZZZZZ		06/25/2018 23:54	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 00:16	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 00:38	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 01:01	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 01:23	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 01:45	1		DB-624 0.18(mm)
240-97405-1		06/26/2018 02:07	1	U1900143.d	DB-624 0.18(mm)
240-97405-2		06/26/2018 02:30	1	U1900144.d	DB-624 0.18(mm)
240-97405-3		06/26/2018 02:52	1	U1900145.d	DB-624 0.18(mm)
ZZZZZ		06/26/2018 03:15	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 03:37	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 04:00	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 04:22	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 06/26/2018 16:00

Analysis Batch Number: 333562 End Date: 06/27/2018 02:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-333562/2		06/26/2018 16:00	1	bfb009.d	DB-624 0.18(mm)
CCV 240-333562/3		06/26/2018 16:26	1	U1900154.d	DB-624 0.18(mm)
CCVIS 240-333562/4		06/26/2018 16:49	1	U1900155.d	DB-624 0.18(mm)
LCS 240-333562/5		06/26/2018 17:11	1	U1900156.d	DB-624 0.18(mm)
MRL 240-333562/6 MDLV		06/26/2018 17:34	1		DB-624 0.18(mm)
MRL 240-333562/7 MDLV		06/26/2018 17:56	1		DB-624 0.18(mm)
MB 240-333562/8		06/26/2018 18:18	1	U1900159.d	DB-624 0.18(mm)
240-97405-4		06/26/2018 18:41	1	U1900160.d	DB-624 0.18(mm)
240-97405-5		06/26/2018 19:03	1	U1900161.d	DB-624 0.18(mm)
ZZZZZ		06/26/2018 19:25	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 19:48	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 20:10	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 20:55	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 21:17	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 21:40	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 22:02	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 22:24	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 22:46	5		DB-624 0.18(mm)
ZZZZZ		06/26/2018 23:08	1		DB-624 0.18(mm)
ZZZZZ		06/26/2018 23:31	2.5		DB-624 0.18(mm)
ZZZZZ		06/26/2018 23:53	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 00:15	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 00:38	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 01:00	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 01:22	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 01:45	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 02:07	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 02:29	1		DB-624 0.18(mm)
ZZZZZ		06/27/2018 02:51	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 06/28/2018 09:22

Analysis Batch Number: 333899 End Date: 06/28/2018 20:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-333899/1		06/28/2018 09:22	1	bfb012.d	DB-624 0.18(mm)
CCV 240-333899/4		06/28/2018 09:46	1	U1900243.d	DB-624 0.18(mm)
CCVIS 240-333899/5		06/28/2018 10:09	1	U1900244.d	DB-624 0.18(mm)
LCS 240-333899/6		06/28/2018 10:31	1	U1900245.d	DB-624 0.18(mm)
MRL 240-333899/7 MDLV		06/28/2018 10:53	1		DB-624 0.18(mm)
MRL 240-333899/8 MDLV		06/28/2018 11:15	1		DB-624 0.18(mm)
MB 240-333899/9		06/28/2018 11:38	1	U1900248.d	DB-624 0.18(mm)
ZZZZZ		06/28/2018 12:19	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 12:42	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 13:04	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 13:26	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 13:50	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 14:13	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 14:57	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 15:20	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 15:42	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 16:04	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 16:27	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 16:49	1		DB-624 0.18(mm)
240-97513-1		06/28/2018 17:11	1	U1900262.d	DB-624 0.18(mm)
240-97513-2		06/28/2018 17:34	66.67	U1900263.d	DB-624 0.18(mm)
240-97513-3		06/28/2018 17:57	1	U1900264.d	DB-624 0.18(mm)
240-97513-4		06/28/2018 18:19	50	U1900265.d	DB-624 0.18(mm)
ZZZZZ		06/28/2018 18:41	1		DB-624 0.18(mm)
ZZZZZ		06/28/2018 19:03	1		DB-624 0.18(mm)
240-97593-1		06/28/2018 19:25	1	U1900268.d	DB-624 0.18(mm)
240-97593-2		06/28/2018 19:47	1	U1900269.d	DB-624 0.18(mm)
240-97593-3		06/28/2018 20:09	33.33	U1900270.d	DB-624 0.18(mm)
240-97593-8		06/28/2018 20:31	1	U1900271.d	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/02/2018 14:52

Analysis Batch Number: 334440 End Date: 07/03/2018 01:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-334440/1		07/02/2018 14:52	1	bfb015.d	DB-624 0.18(mm)
CCV 240-334440/2		07/02/2018 15:20	1	U1900336.d	DB-624 0.18(mm)
CCVIS 240-334440/3		07/02/2018 15:42	1	U1900337.d	DB-624 0.18(mm)
LCS 240-334440/4		07/02/2018 16:04	1	U1900338.d	DB-624 0.18(mm)
MRL 240-334440/5 MDLV		07/02/2018 16:26	1		DB-624 0.18(mm)
MRL 240-334440/6 MDLV		07/02/2018 16:49	1		DB-624 0.18(mm)
MB 240-334440/7		07/02/2018 17:11	1	U1900341.d	DB-624 0.18(mm)
ZZZZZ		07/02/2018 17:33	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 17:56	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 18:18	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 18:41	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 19:03	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 19:25	5		DB-624 0.18(mm)
240-97762-1		07/02/2018 19:47	1	U1900348.d	DB-624 0.18(mm)
240-97762-2		07/02/2018 20:09	1	U1900349.d	DB-624 0.18(mm)
240-97762-2 MS		07/02/2018 20:32	1	U1900350.d	DB-624 0.18(mm)
240-97762-2 MSD		07/02/2018 20:54	1	U1900351.d	DB-624 0.18(mm)
240-97762-3		07/02/2018 21:39	1	U1900353.d	DB-624 0.18(mm)
240-97762-4		07/02/2018 22:01	4	U1900354.d	DB-624 0.18(mm)
240-97762-5		07/02/2018 22:24	1	U1900355.d	DB-624 0.18(mm)
ZZZZZ		07/02/2018 23:31	1		DB-624 0.18(mm)
ZZZZZ		07/02/2018 23:53	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 00:15	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 00:38	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 01:00	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 01:22	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 01:44	50		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/03/2018 14:47

Analysis Batch Number: 334645 End Date: 07/04/2018 02:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-334645/1		07/03/2018 14:47	1	bfb016.d	DB-624 0.18(mm)
CCV 240-334645/2		07/03/2018 15:13	1	U1900364.d	DB-624 0.18(mm)
CCVIS 240-334645/3		07/03/2018 15:36	1	U1900365.d	DB-624 0.18(mm)
LCS 240-334645/4		07/03/2018 15:58	1	U1900366.d	DB-624 0.18(mm)
MRL 240-334645/5 MDLV		07/03/2018 16:21	1		DB-624 0.18(mm)
MRL 240-334645/6 MDLV		07/03/2018 16:43	1		DB-624 0.18(mm)
MB 240-334645/7		07/03/2018 17:05	1	U1900369.d	DB-624 0.18(mm)
ZZZZZ		07/03/2018 17:28	20		DB-624 0.18(mm)
ZZZZZ		07/03/2018 17:50	2.5		DB-624 0.18(mm)
ZZZZZ		07/03/2018 18:12	20		DB-624 0.18(mm)
240-97762-5		07/03/2018 18:35	5	U1900373.d	DB-624 0.18(mm)
240-97762-6		07/03/2018 18:57	500	U1900374.d	DB-624 0.18(mm)
240-97762-7		07/03/2018 19:19	500	U1900375.d	DB-624 0.18(mm)
ZZZZZ		07/03/2018 19:42	100		DB-624 0.18(mm)
ZZZZZ		07/03/2018 20:04	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 20:26	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 20:49	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 21:34	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 21:56	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 22:18	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 22:40	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 23:02	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 23:25	1		DB-624 0.18(mm)
ZZZZZ		07/03/2018 23:47	5		DB-624 0.18(mm)
ZZZZZ		07/04/2018 00:09	1		DB-624 0.18(mm)
ZZZZZ		07/04/2018 00:31	1		DB-624 0.18(mm)
ZZZZZ		07/04/2018 00:53	1		DB-624 0.18(mm)
ZZZZZ		07/04/2018 01:15	1		DB-624 0.18(mm)
ZZZZZ		07/04/2018 01:38	100		DB-624 0.18(mm)
ZZZZZ		07/04/2018 02:00	2.5		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 332816 Batch Start Date: 06/21/18 18:54 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00326	vm50ss_stk 00077	vmarolistdw 00252
BFB 240-332816/2		8260C		5 mL	5 mL				
STD8260 240-332816/8 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
STD8260 240-332816/9 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-332816/10 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
ICIS 240-332816/11		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-332816/12 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-332816/13 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-332816/14 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
ICV 240-332816/15		8260C		5 mL	5 mL	2 uL		2 uL	
STDA9 240-332816/18 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-332816/19 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-332816/20 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-332816/21 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-332816/22 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-332816/23 IC		8260C		5 mL	5 mL	2 uL			
ICV 240-332816/24		8260C		5 mL	5 mL	2 uL		2 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 332816 Batch Start Date: 06/21/18 18:54 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	VMFASA9W 00190	vmfasaw 00237	vmfasgw 00263	vmfaspw 00255	vmra9w 00255
BFB 240-332816/2		8260C		1 uL					
STD8260 240-332816/8 IC		8260C							
STD8260 240-332816/9 IC		8260C							
STD8260 240-332816/10 IC		8260C							
ICIS 240-332816/11		8260C							
STD8260 240-332816/12 IC		8260C							
STD8260 240-332816/13 IC		8260C							
STD8260 240-332816/14 IC		8260C							
ICV 240-332816/15		8260C				16 uL	16 uL	16 uL	
STDA9 240-332816/18 IC		8260C							0.4 uL
STDA9 240-332816/19 IC		8260C							0.8 uL
STDA9 240-332816/20 IC		8260C							8 uL
STDA9 240-332816/21 IC		8260C							16 uL
STDA9 240-332816/22 IC		8260C							32 uL
STDA9 240-332816/23 IC		8260C							64 uL
ICV 240-332816/24		8260C			16 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 332816 Batch Start Date: 06/21/18 18:54 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00251	vmrprimw 00288				
BFB 240-332816/2		8260C							
STD8260 240-332816/8 IC		8260C		0.4 uL	0.4 uL				
STD8260 240-332816/9 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-332816/10 IC		8260C		8 uL	8 uL				
ICIS 240-332816/11		8260C		16 uL	16 uL				
STD8260 240-332816/12 IC		8260C		32 uL	32 uL				
STD8260 240-332816/13 IC		8260C		48 uL	48 uL				
STD8260 240-332816/14 IC		8260C		64 uL	64 uL				
ICV 240-332816/15		8260C							
STDA9 240-332816/18 IC		8260C							
STDA9 240-332816/19 IC		8260C							
STDA9 240-332816/20 IC		8260C							
STDA9 240-332816/21 IC		8260C							
STDA9 240-332816/22 IC		8260C							
STDA9 240-332816/23 IC		8260C							
ICV 240-332816/24		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 332816 Batch Start Date: 06/21/18 18:54 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333371 Batch Start Date: 06/25/18 19:04 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00253
BFB 240-333371/1		8260C		5 mL	5 mL				
CCV 240-333371/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-333371/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-333371/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-333371/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-97405-A-1	TB-062018	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97405-B-2	DMW-6I-0620118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97405-B-3	DMW-6D-0620118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00238	vmfasgw 00263	vmfaspw 00256	vmra9w 00255	vmrgas 00251
BFB 240-333371/1		8260C		1 uL					
CCV 240-333371/3		8260C						16 uL	
CCVIS 240-333371/4		8260C							16 uL
LCS 240-333371/5		8260C			16 uL	16 uL	16 uL		
MB 240-333371/8		8260C							
240-97405-A-1	TB-062018	8260C	T						
240-97405-B-2	DMW-6I-0620118	8260C	T						
240-97405-B-3	DMW-6D-0620118	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00289					
BFB 240-333371/1		8260C							
CCV 240-333371/3		8260C							
CCVIS 240-333371/4		8260C		16 uL					
LCS 240-333371/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333371 Batch Start Date: 06/25/18 19:04 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00289					
MB 240-333371/8		8260C							
240-97405-A-1	TB-062018	8260C	T						
240-97405-B-2	DMW-6I-0620118	8260C	T						
240-97405-B-3	DMW-6D-0620118	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333562 Batch Start Date: 06/26/18 16:00 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00253
BFB 240-333562/2		8260C		5 mL	5 mL				
CCV 240-333562/3		8260C		5 mL	5 mL		2 uL		
CCVIS 240-333562/4		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-333562/5		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-333562/8		8260C		5 mL	5 mL		2 uL	2 uL	
240-97405-B-4	DMW-6S-0620118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97405-B-5	MSA-MW-30D-0620118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00238	vmfasgw 00263	vmfaspw 00256	vmra9w 00255	vmrgas 00251
BFB 240-333562/2		8260C		1 uL					
CCV 240-333562/3		8260C						16 uL	
CCVIS 240-333562/4		8260C							16 uL
LCS 240-333562/5		8260C			16 uL	16 uL	16 uL		
MB 240-333562/8		8260C							
240-97405-B-4	DMW-6S-0620118	8260C	T						
240-97405-B-5	MSA-MW-30D-0620118	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00289
BFB 240-333562/2		8260C		
CCV 240-333562/3		8260C		
CCVIS 240-333562/4		8260C		16 uL
LCS 240-333562/5		8260C		
MB 240-333562/8		8260C		
240-97405-B-4	DMW-6S-0620118	8260C	T	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333562 Batch Start Date: 06/26/18 16:00 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00289					
240-97405-B-5	MSA-MW-30D-06201 18	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333899 Batch Start Date: 06/28/18 09:22 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00253
BFB 240-333899/1		8260C		5 mL	5 mL				
CCV 240-333899/4		8260C		5 mL	5 mL		2 uL		
CCVIS 240-333899/5		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-333899/6		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-333899/9		8260C		5 mL	5 mL		2 uL	2 uL	
240-97513-B-1	TB-062118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97513-B-2	DMW-3I-062118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97513-B-3	DMW-3D-062118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97513-B-4	DMW-3S-062118	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97593-B-1	TB-062218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97593-B-2	MSA-MW-14D-062218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97593-B-3	MSA-MW-14I-062218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-97593-C-8	MSA-MW-31D-062218	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00238	vmfasgw 00264	vmfaspw 00256	vmra9w 00256	vmrgas 00252
BFB 240-333899/1		8260C		1 uL					
CCV 240-333899/4		8260C						16 uL	
CCVIS 240-333899/5		8260C							16 uL
LCS 240-333899/6		8260C			16 uL	16 uL	16 uL		
MB 240-333899/9		8260C							
240-97513-B-1	TB-062118	8260C	T						
240-97513-B-2	DMW-3I-062118	8260C	T						
240-97513-B-3	DMW-3D-062118	8260C	T						
240-97513-B-4	DMW-3S-062118	8260C	T						
240-97593-B-1	TB-062218	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333899 Batch Start Date: 06/28/18 09:22 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00238	vmfasgw 00264	vmfaspw 00256	vmra9w 00256	vmrgas 00252
240-97593-B-2	MSA-MW-14D-062218	8260C	T						
240-97593-B-3	MSA-MW-14I-062218	8260C	T						
240-97593-C-8	MSA-MW-31D-062218	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00289					
BFB 240-333899/1		8260C							
CCV 240-333899/4		8260C							
CCVIS 240-333899/5		8260C		16 uL					
LCS 240-333899/6		8260C							
MB 240-333899/9		8260C							
240-97513-B-1	TB-062118	8260C	T						
240-97513-B-2	DMW-3I-062118	8260C	T						
240-97513-B-3	DMW-3D-062118	8260C	T						
240-97513-B-4	DMW-3S-062118	8260C	T						
240-97593-B-1	TB-062218	8260C	T						
240-97593-B-2	MSA-MW-14D-062218	8260C	T						
240-97593-B-3	MSA-MW-14I-062218	8260C	T						
240-97593-C-8	MSA-MW-31D-062218	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334440 Batch Start Date: 07/02/18 14:52 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	vm50is_stk_A 00001	vm50ss_stk 00077
BFB 240-334440/1		8260C		5 mL	5 mL				
CCV 240-334440/2		8260C		5 mL	5 mL			2 uL	
CCVIS 240-334440/3		8260C		5 mL	5 mL			2 uL	2 uL
LCS 240-334440/4		8260C		5 mL	5 mL			2 uL	2 uL
MB 240-334440/7		8260C		5 mL	5 mL			2 uL	2 uL
240-97762-A-1	TB-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-B-2	MSA-MW-50D-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-E-2 MS	MSA-MW-50D-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-H-2 MSD	MSA-MW-50D-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-C-3	MSA-MW-50I-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-B-4	MSA-MW-50S-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-B-5	MSA-MW-52S-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00253	vmbfb 00020	vmfasaw 00239	vmfasgw 00264	vmfaspw 00257	vmra9w 00256
BFB 240-334440/1		8260C			1 uL				
CCV 240-334440/2		8260C							16 uL
CCVIS 240-334440/3		8260C		16 uL					
LCS 240-334440/4		8260C				16 uL	16 uL	16 uL	
MB 240-334440/7		8260C							
240-97762-A-1	TB-062618	8260C	T						
240-97762-B-2	MSA-MW-50D-062618	8260C	T						
240-97762-E-2 MS	MSA-MW-50D-062618	8260C	T			16 uL	16 uL	16 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334440 Batch Start Date: 07/02/18 14:52 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00253	vmbfb 00020	vmfasaw 00239	vmfasgw 00264	vmfaspw 00257	vmra9w 00256
240-97762-H-2 MSD	MSA-MW-50D-062618	8260C	T			16 uL	16 uL	16 uL	
240-97762-C-3	MSA-MW-50I-062618	8260C	T						
240-97762-B-4	MSA-MW-50S-062618	8260C	T						
240-97762-B-5	MSA-MW-52S-062618	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00252	vmrprimw 00289				
BFB 240-334440/1		8260C							
CCV 240-334440/2		8260C							
CCVIS 240-334440/3		8260C		16 uL	16 uL				
LCS 240-334440/4		8260C							
MB 240-334440/7		8260C							
240-97762-A-1	TB-062618	8260C	T						
240-97762-B-2	MSA-MW-50D-062618	8260C	T						
240-97762-E-2 MS	MSA-MW-50D-062618	8260C	T						
240-97762-H-2 MSD	MSA-MW-50D-062618	8260C	T						
240-97762-C-3	MSA-MW-50I-062618	8260C	T						
240-97762-B-4	MSA-MW-50S-062618	8260C	T						
240-97762-B-5	MSA-MW-52S-062618	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334440 Batch Start Date: 07/02/18 14:52 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334645 Batch Start Date: 07/03/18 14:47 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	vm50is_stk_A 00001	vm50ss_stk 00077
BFB 240-334645/1		8260C		5 mL	5 mL				
CCV 240-334645/2		8260C		5 mL	5 mL			2 uL	
CCVIS 240-334645/3		8260C		5 mL	5 mL			2 uL	2 uL
LCS 240-334645/4		8260C		5 mL	5 mL			2 uL	2 uL
MB 240-334645/7		8260C		5 mL	5 mL			2 uL	2 uL
240-97762-C-5	MSA-MW-52S-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-A-6	MSA-MW-52I-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL
240-97762-C-7	MSA-MW-52D-062618	8260C	T	5 mL	5 mL	<2 SU	N	2 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00254	vmbfb 00020	vmfasaw 00239	vmfasgw 00264	vmfaspw 00257	vmra9w 00256
BFB 240-334645/1		8260C			1 uL				
CCV 240-334645/2		8260C							16 uL
CCVIS 240-334645/3		8260C		16 uL					
LCS 240-334645/4		8260C				16 uL	16 uL	16 uL	
MB 240-334645/7		8260C							
240-97762-C-5	MSA-MW-52S-062618	8260C	T						
240-97762-A-6	MSA-MW-52I-062618	8260C	T						
240-97762-C-7	MSA-MW-52D-062618	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00252	vmrprimw 00290				
BFB 240-334645/1		8260C							
CCV 240-334645/2		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334645 Batch Start Date: 07/03/18 14:47 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00252	vmrprimw 00290				
CCVIS 240-334645/3		8260C		16 uL	16 uL				
LCS 240-334645/4		8260C							
MB 240-334645/7		8260C							
240-97762-C-5	MSA-MW-52S-062618	8260C	T						
240-97762-A-6	MSA-MW-52I-062618	8260C	T						
240-97762-C-7	MSA-MW-52D-062618	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low

GC Column (2): CLP II ID: 0.32(mm)

Client Sample ID	Lab Sample ID	23DPA2 #
DMW-3S-062118	240-97513-4	127
	MB 680-529351/19-A	97
	LCS 680-529351/20-A	95
	LCSD 680-529351/21-A	93
DMW-3S-062118 MS	240-97513-4 MS	106

	QC LIMITS
23DPA = 2,3-Dibromopropionic acid	70-130

Column to be used to flag recovery values

FORM II 552.2

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF26007.D

Lab ID: LCS 680-529351/20-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	11.5	92	70-130	
Monobromoacetic acid	12.5	11.0	88	70-130	
Dichloroacetic acid	12.5	11.0	88	70-130	
Dibromoacetic acid	12.5	11.3	90	70-130	
Trichloroacetic acid	12.5	10.6	85	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF26008.D

Lab ID: LCSD 680-529351/21-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Monochloroacetic acid	12.5	11.1	88	4	20	70-130	
Monobromoacetic acid	12.5	10.4	83	6	20	70-130	
Dichloroacetic acid	12.5	10.6	84	5	20	70-130	
Dibromoacetic acid	12.5	10.9	87	4	20	70-130	
Trichloroacetic acid	12.5	10.8	86	2	20	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF26011.D

Lab ID: 240-97513-4 MS Client ID: DMW-3S-062118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	0.40 U	11.5	92	70-130	
Monobromoacetic acid	12.5	0.75 U	11.0	88	70-130	
Dichloroacetic acid	12.5	0.98 U	14.8	119	70-130	
Dibromoacetic acid	12.5	0.38 U	12.0	96	70-130	
Trichloroacetic acid	12.5	0.38 U	12.2	97	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: MB 680-529351/19-A

Matrix: Water Date Extracted: 06/26/2018 07:23

Lab File ID:(1) YF26006.D Lab File ID:(2) YF26006.D

Date Analyzed:(1) 06/26/2018 19:59 Date Analyzed:(2) 06/26/2018 19:59

Instrument ID:(1) CSGY Instrument ID:(2) CSGY

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-529351/20-A	06/26/2018 20:16	06/26/2018 20:16
	LCSD 680-529351/21-A	06/26/2018 20:32	06/26/2018 20:32
DMW-3S-062118	240-97513-4	06/26/2018 21:05	06/26/2018 21:05
DMW-3S-062118 MS	240-97513-4 MS	06/26/2018 21:21	06/26/2018 21:21

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-529351/19-A

Matrix: Water | Lab File ID: YF26006.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: 552.2 | Date Extracted: 06/26/2018 07:23

Sample wt/vol: 40(mL) | Date Analyzed: 06/26/2018 19:59

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-529351/19-A

Matrix: Water | Lab File ID: YF26006.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: 552.2 | Date Extracted: 06/26/2018 07:23

Sample wt/vol: 40(mL) | Date Analyzed: 06/26/2018 19:59

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	97		70-130

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-529493/5

Matrix: Water | Lab File ID: YF26005.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/26/2018 19:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-529493/5

Matrix: Water | Lab File ID: YF26005.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/26/2018 19:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-529493/17

Matrix: Water | Lab File ID: YF26017.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/26/2018 22:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-529493/17

Matrix: Water | Lab File ID: YF26017.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/26/2018 22:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 529493 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Sample No.: ICIS 680-528994/7 Date Analyzed: 06/22/2018 13:48

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): YF22007.D Heated Purge: (Y/N) N

Calibration ID: 58385

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		25566954	3.92				
UPPER LIMIT		33237040	4.22				
LOWER LIMIT		17896868	3.62				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-528994/11 CCV		27611389	3.92				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Sample No.: ICIS 680-528994/7 Date Analyzed: 06/22/2018 13:48

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): YF22007.D Heated Purge: (Y/N) N

Calibration ID: 58386

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		38266782	3.81				
UPPER LIMIT		49746817	4.11				
LOWER LIMIT		26786747	3.51				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-528994/11 CCV		39954642	3.81				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-97405-1 Analy Batch No.: 528994

SDG No.:

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2018 12:59 Calibration End Date: 06/22/2018 18:10 Calibration ID: 58385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-528994/10	YF22010.D
Level 2	IC 680-528994/9	YF22009.D
Level 3	IC 680-528994/8	YF22008.D
Level 4	ICIS 680-528994/7	YF22007.D
Level 5	IC 680-528994/6	YF22006.D
Level 6	IC 680-528994/5	YF22005.D
Level 7	IC 680-528994/4	YF22004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.9163 0.6413	0.8101 0.6376	0.7160	0.6627	0.6861	Ave		0.7243				14.3		20.0			
Monobromoacetic acid	8.4241 7.4446	8.0694 7.9023	7.3267	7.2304	7.7633	Ave		7.7372				5.6		20.0			
Dichloroacetic acid	10.825 9.2108	9.9415 9.5923	9.3269	9.0540	9.5759	Ave		9.6466				6.2		20.0			
Trichloroacetic acid	16.863 18.098	18.344 18.122	17.278	16.970	18.552	Ave		17.747				3.9		20.0			
Bromochloroacetic acid	20.613 20.271	22.002 20.664	20.607	19.851	21.038	Ave		20.721				3.3		20.0			
Dibromoacetic acid	26.062 24.084	25.518 24.223	23.864	23.441	24.878	Ave		24.581				3.8		20.0			
2,3-Dibromopropionic acid	6.8583 7.1216	6.8756 6.9283	6.5011	6.8662	7.3462	Ave		6.9282				3.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-97405-1 Analy Batch No.: 528994

SDG No.:

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2018 12:59 Calibration End Date: 06/22/2018 18:10 Calibration ID: 58385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-528994/10	YF22010.D
Level 2	IC 680-528994/9	YF22009.D
Level 3	IC 680-528994/8	YF22008.D
Level 4	ICIS 680-528994/7	YF22007.D
Level 5	IC 680-528994/6	YF22006.D
Level 6	IC 680-528994/5	YF22005.D
Level 7	IC 680-528994/4	YF22004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Monochloroacetic acid	TCP	Ave	242995 3914519	541384 7569756	1151328	2117809	3037760	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Monobromoacetic acid	TCP	Ave	2234009 45438918	5392713 93812549	11780644	23107319	34374893	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dichloroacetic acid	TCP	Ave	2870602 56218973	6643777 113875906	14996884	28935478	42400898	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Trichloroacetic acid	TCP	Ave	4472051 110463539	12259160 215142257	27782162	54232628	82146074	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Bromochloroacetic acid	TCP	Ave	5466296 123728060	14703456 245312546	33134021	63441760	93154130	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dibromoacetic acid	TCP	Ave	6911419 146996239	17053452 287567114	38371068	74914522	110156508	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
2,3-Dibromopropionic acid	TCP	Ave	4546937 15213682	6892300 16449956	8362589	10971760	13011229	0.0250 0.0875	0.0375 0.100	0.0500	0.0625	0.0750

Curve Type Legend:
Ave = Average ISTD

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-97405-1 Analy Batch No.: 528994

SDG No.:

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2018 12:59 Calibration End Date: 06/22/2018 18:10 Calibration ID: 58386

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-528994/10	YF22010.D
Level 2	IC 680-528994/9	YF22009.D
Level 3	IC 680-528994/8	YF22008.D
Level 4	ICIS 680-528994/7	YF22007.D
Level 5	IC 680-528994/6	YF22006.D
Level 6	IC 680-528994/5	YF22005.D
Level 7	IC 680-528994/4	YF22004.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.7017 0.5529	0.6535 0.5117	0.6142	0.6267	0.5997	Ave		0.6086				10.3		20.0			
Monobromoacetic acid	6.6502 5.5010	6.5435 5.3036	5.8471	5.6560	5.8331	Ave		5.9049				8.6		20.0			
Dichloroacetic acid	9.5617 8.0722	9.6495 7.5027	8.9757	8.4952	8.6020	Ave		8.6941				8.9		20.0			
Trichloroacetic acid	15.085 14.370	16.113 13.209	15.201	14.450	15.107	Ave		14.791				6.1		20.0			
Bromochloroacetic acid	24.628 15.865	20.606 14.632	17.995	16.736	16.870	Ave		18.190				18.7		20.0			
Dibromoacetic acid	24.235 20.659	24.907 18.799	22.431	21.609	21.768	Ave		22.058				9.4		20.0			
2,3-Dibromopropionic acid	5.8157 5.6286	5.9658 5.0208	5.6232	5.8180	5.9374	Ave		5.6871				5.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-97405-1 Analy Batch No.: 528994

SDG No.:

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2018 12:59 Calibration End Date: 06/22/2018 18:10 Calibration ID: 58386

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-528994/10	YF22010.D
Level 2	IC 680-528994/9	YF22009.D
Level 3	IC 680-528994/8	YF22008.D
Level 4	ICIS 680-528994/7	YF22007.D
Level 5	IC 680-528994/6	YF22006.D
Level 6	IC 680-528994/5	YF22005.D
Level 7	IC 680-528994/4	YF22004.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Monochloroacetic acid	TCP	Ave	266701 5348638	630215 10595109	1445508	2997560	4134728	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Monobromoacetic acid	TCP	Ave	2527731 53215406	6310262 109816133	13760861	27054678	40218393	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dichloroacetic acid	TCP	Ave	3634386 78088462	9305544 155348530	21123740	40635691	59308929	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Trichloroacetic acid	TCP	Ave	5733796 139016796	15538583 273499046	35773723	69119918	104162309	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Bromochloroacetic acid	TCP	Ave	9361172 153472053	19871667 302961332	42349493	80054663	116315394	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dibromoacetic acid	TCP	Ave	9211899 199854262	24018898 389247543	52789863	103364732	150086960	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
2,3-Dibromopropionic acid	TCP	Ave	5526372 19057500	8629688 20792019	10587071	13914676	16374804	0.0250 0.0875	0.0375 0.100	0.0500	0.0625	0.0750

Curve Type Legend:
Ave = Average ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID (1): PEM 680-529493/3 Instrument ID (1): CSGY

GC Column (1): CLP I ID: 0.32(mm) Date Analyzed (1): 06/26/2018 19:10

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	5.34	1.70

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID (2): PEM 680-529493/3 Instrument ID (2): CSGY

GC Column (2): CLP II ID: 0.32(mm) Date Analyzed (2): 06/26/2018 19:10

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	5.31	1.70

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 680-528994/11 Calibration Date: 06/22/2018 14:53

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF22011.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.7243	0.6587		0.400	0.0625	-9.1	30.0
Monobromoacetic acid	Ave	7.737	6.629		0.750	0.0625	-14.3	30.0
Dichloroacetic acid	Ave	9.647	8.236		0.980	0.0625	-14.6	30.0
Trichloroacetic acid	Ave	17.75	13.70		0.380	0.0625	-22.8	30.0
Bromochloroacetic acid	Ave	20.72	18.07		1.00	0.0625	-12.8	30.0
Dibromoacetic acid	Ave	24.58	21.20		0.380	0.0625	-13.8	30.0
2,3-Dibromopropionic acid	Ave	6.928	5.984		0.0540	0.0625	-13.6	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 680-528994/11 Calibration Date: 06/22/2018 14:53

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF22011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.05	3.04	3.06
Monobromoacetic acid	3.48	3.47	3.49
Dichloroacetic acid	3.54	3.53	3.55
Trichloroacetic acid	4.02	4.01	4.03
Bromochloroacetic acid	4.06	4.05	4.07
Dibromoacetic acid	4.58	4.57	4.59
2,3-Dibromopropionic acid	5.46	5.45	5.47

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 680-528994/11 Calibration Date: 06/22/2018 14:53

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF22011.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.6086	0.6018		0.400	0.0625	-1.1	30.0
Monobromoacetic acid	Ave	5.905	5.302		0.750	0.0625	-10.2	30.0
Dichloroacetic acid	Ave	8.694	7.927		0.980	0.0625	-8.8	30.0
Trichloroacetic acid	Ave	14.79	12.10		0.380	0.0625	-18.2	30.0
Bromochloroacetic acid	Ave	18.19	16.17		1.00	0.0625	-11.1	30.0
Dibromoacetic acid	Ave	22.06	20.16		0.380	0.0625	-8.6	30.0
2,3-Dibromopropionic acid	Ave	5.687	5.160		0.0567	0.0625	-9.3	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 680-528994/11 Calibration Date: 06/22/2018 14:53

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF22011.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.50	2.49	2.51
Monobromoacetic acid	3.22	3.21	3.23
Dichloroacetic acid	3.26	3.25	3.27
Trichloroacetic acid	3.75	3.74	3.76
Bromochloroacetic acid	3.89	3.88	3.90
Dibromoacetic acid	4.50	4.49	4.51
2,3-Dibromopropionic acid	5.37	5.36	5.38

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/4 Calibration Date: 06/26/2018 19:26

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.7243	0.5866		0.400	0.125	-19.0	30.0
Monobromoacetic acid	Ave	7.737	6.499		0.750	0.125	-16.0	30.0
Dichloroacetic acid	Ave	9.647	7.968		0.980	0.125	-17.4	30.0
Trichloroacetic acid	Ave	17.75	14.88		0.380	0.125	-16.2	30.0
Bromochloroacetic acid	Ave	20.72	17.60		1.00	0.125	-15.1	30.0
Dibromoacetic acid	Ave	24.58	20.69		0.380	0.125	-15.8	30.0
2,3-Dibromopropionic acid	Ave	6.928	6.011		0.0542	0.0625	-13.2	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/4 Calibration Date: 06/26/2018 19:26

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.05	3.04	3.06
Monobromoacetic acid	3.48	3.47	3.49
Dichloroacetic acid	3.54	3.53	3.55
Trichloroacetic acid	4.02	4.01	4.03
Bromochloroacetic acid	4.06	4.05	4.07
Dibromoacetic acid	4.58	4.57	4.59
2,3-Dibromopropionic acid	5.46	5.45	5.47

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/4 Calibration Date: 06/26/2018 19:26

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.6086	0.5439		0.400	0.125	-10.6	30.0
Monobromoacetic acid	Ave	5.905	5.050		0.750	0.125	-14.5	30.0
Dichloroacetic acid	Ave	8.694	7.493		0.980	0.125	-13.8	30.0
Trichloroacetic acid	Ave	14.79	12.72		0.380	0.125	-14.0	30.0
Bromochloroacetic acid	Ave	18.19	15.01		1.00	0.125	-17.5	30.0
Dibromoacetic acid	Ave	22.06	18.93		0.380	0.125	-14.2	30.0
2,3-Dibromopropionic acid	Ave	5.687	5.094		0.0560	0.0625	-10.4	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/4 Calibration Date: 06/26/2018 19:26

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.50	2.49	2.51
Monobromoacetic acid	3.22	3.21	3.23
Dichloroacetic acid	3.26	3.25	3.27
Trichloroacetic acid	3.75	3.74	3.76
Bromochloroacetic acid	3.89	3.88	3.90
Dibromoacetic acid	4.50	4.49	4.51
2,3-Dibromopropionic acid	5.37	5.36	5.38

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/16 Calibration Date: 06/26/2018 22:43

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26016.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.7243	0.5877		0.400	0.188	-18.9	30.0
Monobromoacetic acid	Ave	7.737	6.904		0.750	0.188	-10.8	30.0
Dichloroacetic acid	Ave	9.647	8.306		0.980	0.188	-13.9	30.0
Trichloroacetic acid	Ave	17.75	16.14		0.380	0.188	-9.1	30.0
Bromochloroacetic acid	Ave	20.72	18.54		1.00	0.188	-10.5	30.0
Dibromoacetic acid	Ave	24.58	21.86		0.380	0.188	-11.1	30.0
2,3-Dibromopropionic acid	Ave	6.928	6.915		0.0749	0.0750	-0.2	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/16 Calibration Date: 06/26/2018 22:43

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP I ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.05	3.04	3.06
Monobromoacetic acid	3.48	3.47	3.49
Dichloroacetic acid	3.54	3.53	3.55
Trichloroacetic acid	4.02	4.01	4.03
Bromochloroacetic acid	4.06	4.05	4.07
Dibromoacetic acid	4.58	4.57	4.59
2,3-Dibromopropionic acid	5.46	5.45	5.47

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/16 Calibration Date: 06/26/2018 22:43

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26016.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.6086	0.5306		0.400	0.188	-12.8	30.0
Monobromoacetic acid	Ave	5.905	5.294		0.750	0.188	-10.3	30.0
Dichloroacetic acid	Ave	8.694	7.477		0.980	0.188	-14.0	30.0
Trichloroacetic acid	Ave	14.79	13.26		0.380	0.188	-10.4	30.0
Bromochloroacetic acid	Ave	18.19	15.12		1.00	0.188	-16.9	30.0
Dibromoacetic acid	Ave	22.06	19.67		0.380	0.188	-10.8	30.0
2,3-Dibromopropionic acid	Ave	5.687	5.608		0.0740	0.0750	-1.4	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 680-529493/16 Calibration Date: 06/26/2018 22:43

Instrument ID: CSGY Calib Start Date: 06/22/2018 12:59

GC Column: CLP II ID: 0.32(mm) Calib End Date: 06/22/2018 18:10

Lab File ID: YF26016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.50	2.49	2.51
Monobromoacetic acid	3.22	3.21	3.23
Dichloroacetic acid	3.26	3.25	3.27
Trichloroacetic acid	3.75	3.74	3.76
Bromochloroacetic acid	3.89	3.88	3.90
Dibromoacetic acid	4.50	4.49	4.51
2,3-Dibromopropionic acid	5.37	5.36	5.38

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Instrument ID: CSGY Start Date: 06/22/2018 12:42

Analysis Batch Number: 528994 End Date: 06/22/2018 19:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 680-528994/3		06/22/2018 12:42	1		CLP I 0.32(mm)
PEM 680-528994/3		06/22/2018 12:42	1		CLP II 0.32(mm)
IC 680-528994/4		06/22/2018 12:59	1	YF22004.D	CLP I 0.32(mm)
IC 680-528994/4		06/22/2018 12:59	1	YF22004.D	CLP II 0.32(mm)
IC 680-528994/5		06/22/2018 13:15	1	YF22005.D	CLP I 0.32(mm)
IC 680-528994/5		06/22/2018 13:15	1	YF22005.D	CLP II 0.32(mm)
IC 680-528994/6		06/22/2018 13:31	1	YF22006.D	CLP I 0.32(mm)
IC 680-528994/6		06/22/2018 13:31	1	YF22006.D	CLP II 0.32(mm)
ICIS 680-528994/7		06/22/2018 13:48	1	YF22007.D	CLP I 0.32(mm)
ICIS 680-528994/7		06/22/2018 13:48	1	YF22007.D	CLP II 0.32(mm)
IC 680-528994/8		06/22/2018 14:04	1	YF22008.D	CLP I 0.32(mm)
IC 680-528994/8		06/22/2018 14:04	1	YF22008.D	CLP II 0.32(mm)
IC 680-528994/9		06/22/2018 14:20	1	YF22009.D	CLP I 0.32(mm)
IC 680-528994/9		06/22/2018 14:20	1	YF22009.D	CLP II 0.32(mm)
IC 680-528994/10		06/22/2018 14:37	1	YF22010.D	CLP I 0.32(mm)
IC 680-528994/10		06/22/2018 14:37	1	YF22010.D	CLP II 0.32(mm)
ICV 680-528994/11 CCV		06/22/2018 14:53	1	YF22011.D	CLP I 0.32(mm)
ICV 680-528994/11 CCV		06/22/2018 14:53	1	YF22011.D	CLP II 0.32(mm)
PIBLK 680-528994/12		06/22/2018 15:09	1		CLP I 0.32(mm)
PIBLK 680-528994/12		06/22/2018 15:09	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 15:26	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 15:26	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 15:42	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 15:42	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 15:58	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 15:58	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 16:15	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 16:15	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 16:31	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 16:31	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 16:48	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 16:48	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 17:04	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 17:04	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 17:20	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 17:20	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 17:37	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 17:37	1		CLP II 0.32(mm)
CCV 680-528994/23		06/22/2018 18:10	1		CLP I 0.32(mm)
CCV 680-528994/23		06/22/2018 18:10	1		CLP II 0.32(mm)
PIBLK 680-528994/24		06/22/2018 18:26	1		CLP I 0.32(mm)
PIBLK 680-528994/24		06/22/2018 18:26	1		CLP II 0.32(mm)
ZZZZZ		06/22/2018 18:42	1		CLP I 0.32(mm)
ZZZZZ		06/22/2018 18:42	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Instrument ID: CSGY Start Date: 06/22/2018 12:42

Analysis Batch Number: 528994 End Date: 06/22/2018 19:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 680-528994/26		06/22/2018 18:59	1		CLP I 0.32(mm)
CCV 680-528994/26		06/22/2018 18:59	1		CLP II 0.32(mm)
PIBLK 680-528994/27		06/22/2018 19:15	1		CLP I 0.32(mm)
PIBLK 680-528994/27		06/22/2018 19:15	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Instrument ID: CSGY Start Date: 06/26/2018 19:10

Analysis Batch Number: 529493 End Date: 06/27/2018 04:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 680-529493/3		06/26/2018 19:10	1	YF26003.D	CLP I 0.32(mm)
PEM 680-529493/3		06/26/2018 19:10	1	YF26003.D	CLP II 0.32(mm)
CCV 680-529493/4		06/26/2018 19:26	1	YF26004.D	CLP I 0.32(mm)
CCV 680-529493/4		06/26/2018 19:26	1	YF26004.D	CLP II 0.32(mm)
PIBLK 680-529493/5		06/26/2018 19:43	1	YF26005.D	CLP I 0.32(mm)
PIBLK 680-529493/5		06/26/2018 19:43	1	YF26005.D	CLP II 0.32(mm)
MB 680-529351/19-A		06/26/2018 19:59	1	YF26006.D	CLP I 0.32(mm)
MB 680-529351/19-A		06/26/2018 19:59	1	YF26006.D	CLP II 0.32(mm)
LCS 680-529351/20-A		06/26/2018 20:16	1	YF26007.D	CLP I 0.32(mm)
LCS 680-529351/20-A		06/26/2018 20:16	1	YF26007.D	CLP II 0.32(mm)
LCSD 680-529351/21-A		06/26/2018 20:32	1	YF26008.D	CLP I 0.32(mm)
LCSD 680-529351/21-A		06/26/2018 20:32	1	YF26008.D	CLP II 0.32(mm)
ZZZZZ		06/26/2018 20:49	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 20:49	1		CLP II 0.32(mm)
240-97513-4		06/26/2018 21:05	1	YF26010.D	CLP I 0.32(mm)
240-97513-4		06/26/2018 21:05	1	YF26010.D	CLP II 0.32(mm)
240-97513-4 MS		06/26/2018 21:21	1	YF26011.D	CLP I 0.32(mm)
240-97513-4 MS		06/26/2018 21:21	1	YF26011.D	CLP II 0.32(mm)
ZZZZZ		06/26/2018 21:38	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 21:38	1		CLP II 0.32(mm)
ZZZZZ		06/26/2018 21:54	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 21:54	1		CLP II 0.32(mm)
ZZZZZ		06/26/2018 22:10	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 22:10	1		CLP II 0.32(mm)
ZZZZZ		06/26/2018 22:27	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 22:27	1		CLP II 0.32(mm)
CCV 680-529493/16		06/26/2018 22:43	1	YF26016.D	CLP I 0.32(mm)
CCV 680-529493/16		06/26/2018 22:43	1	YF26016.D	CLP II 0.32(mm)
PIBLK 680-529493/17		06/26/2018 22:59	1	YF26017.D	CLP I 0.32(mm)
PIBLK 680-529493/17		06/26/2018 22:59	1	YF26017.D	CLP II 0.32(mm)
ZZZZZ		06/26/2018 23:16	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 23:16	1		CLP II 0.32(mm)
ZZZZZ		06/26/2018 23:32	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 23:32	1		CLP II 0.32(mm)
ZZZZZ		06/26/2018 23:48	1		CLP I 0.32(mm)
ZZZZZ		06/26/2018 23:48	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 00:05	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 00:05	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 00:21	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 00:21	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 00:37	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 00:37	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 00:53	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 00:53	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 01:10	1		CLP I 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Instrument ID: CSGY Start Date: 06/26/2018 19:10

Analysis Batch Number: 529493 End Date: 06/27/2018 04:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/27/2018 01:10	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 01:26	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 01:26	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 01:42	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 01:42	1		CLP II 0.32(mm)
CCV 680-529493/28		06/27/2018 01:58	1		CLP I 0.32(mm)
CCV 680-529493/28		06/27/2018 01:58	1		CLP II 0.32(mm)
PIBLK 680-529493/29		06/27/2018 02:15	1		CLP I 0.32(mm)
PIBLK 680-529493/29		06/27/2018 02:15	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 02:31	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 02:31	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 02:47	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 02:47	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 03:04	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 03:04	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 03:20	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 03:20	1		CLP II 0.32(mm)
ZZZZZ		06/27/2018 03:36	1		CLP I 0.32(mm)
ZZZZZ		06/27/2018 03:36	1		CLP II 0.32(mm)
CCV 680-529493/35		06/27/2018 03:52	1		CLP I 0.32(mm)
CCV 680-529493/35		06/27/2018 03:52	1		CLP II 0.32(mm)
PIBLK 680-529493/36		06/27/2018 04:09	1		CLP I 0.32(mm)
PIBLK 680-529493/36		06/27/2018 04:09	1		CLP II 0.32(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Batch Number: 529351 Batch Start Date: 06/26/18 07:23 Batch Analyst: Vasquez, Melissa A

Batch Method: 552.2 Batch End Date: 06/26/18 14:32

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	Initial pH	AdjustedpH	Final pH	InitialAmount	FinalAmount
240-97513-F-4	DMW-3S-062118	552.2, 552.2	T	no	6	<0.5	<0.5	40 mL	4 mL
MB 680-529351/19		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
LCS 680-529351/20		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
LCSD 680-529351/21		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
240-97513-F-4 MS	DMW-3S-062118	552.2, 552.2	T	no	6	<0.5	<0.5	40 mL	4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SG552LCS 00034	SG552SurDL 00058				
240-97513-F-4	DMW-3S-062118	552.2, 552.2	T		25 uL				
MB 680-529351/19		552.2, 552.2			25 uL				
LCS 680-529351/20		552.2, 552.2		50 uL	25 uL				
LCSD 680-529351/21		552.2, 552.2		50 uL	25 uL				
240-97513-F-4 MS	DMW-3S-062118	552.2, 552.2	T	50 uL	25 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-97405-1

SDG No.:

Batch Number: 529351 Batch Start Date: 06/26/18 07:23 Batch Analyst: Vasquez, Melissa A

Batch Method: 552.2 Batch End Date: 06/26/18 14:32

Batch Notes	
10% H2SO4 in MeOH ID	5557776
Acid Used for pH Adjustment ID	5589648
Copper II Sulfate Pentahydrate ID	5590972
Final Temperature	50 Degrees C
Inital Temperature	50 Degrees C
Methylation End Time	1300
Methylation Start Time	1100
MTBE ID	5598906
Na2SO4 ID	5584277
Sodium Bicarbonate ID	5589647
pH Paper ID	5599494/5194394
Person's name who did the prep	MW
Analyst ID - Reagent Drop Witness	KC
Residual Chlorine Indicator ID	5598837
Thermometer ID	SGWB1
Temperature - Start - Uncorrected	52 Degrees C
Temperature - End - Uncorrected	52 Degrees C
Vial Lot Number	1616559
Water Bath ID	DWWB1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
DMW-6I-0620118	240-97405-2	56	42	55	62	67	76
DMW-6D-0620118	240-97405-3	66	47	58	62	66	80
DMW-6S-0620118	240-97405-4	58	36	56	54	68	65
MSA-MW-30D-0620118	240-97405-5	67	47	60	66	69	77
DMW-3I-062118	240-97513-2	74	53	67	67	57	78
DMW-3D-062118	240-97513-3	72	63	71	65	73	83
DMW-3S-062118	240-97513-4	50	47	51	52	54	72
MSA-MW-14D-062218	240-97593-2	62	44	55	53	72	74
MSA-MW-14I-062218	240-97593-3	65	36	60	56	72	74
MSA-MW-31D-062218	240-97593-8	71	48	62	61	79	72
MSA-MW-50D-062618	240-97762-2	56	47	64	62	67	77
MSA-MW-50I-062618	240-97762-3	67	55	64	62	74	83
MSA-MW-50S-062618	240-97762-4	67	49	65	64	73	77
MSA-MW-52S-062618	240-97762-5	66	52	67	64	73	75
MSA-MW-52I-062618	240-97762-6	58	51	59	61	51	78
MSA-MW-52D-062618	240-97762-7	61	44	56	56	47	70
	MB 240-332882/7-A	74	54	63	72	63	79
	MB 240-333235/15-A	74	63	67	70	68	89
	MB 240-333681/10-A	62	44	62	73	64	78
	MB 240-333882/22-A	51	37	62	63	57	76
	LCS 240-332882/8-A	66	53	78	78	82	82
	LCS 240-333235/16-A	78	66	82	86	93	86
	LCS 240-333681/11-A	68	47	81	82	88	86
	LCS 240-333882/23-A	77	57	82	79	87	84
	LCSD 240-333235/17-A	77	62	85	80	87	82
	LCSD 240-333681/12-A	70	49	80	79	85	81
MSA-MW-50D-062618 MS	240-97762-2 MS	66	59	82	78	94	88
MSA-MW-50D-062618 MSD	240-97762-2 MSD	105	88	110	108	131 X	123

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80628007.D

Lab ID: LCS 240-332882/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.0	44	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80627006.D

Lab ID: LCS 240-333235/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	17.2	54	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80628004.D

Lab ID: LCS 240-333681/11-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.3	45	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80702004.D

Lab ID: LCS 240-333882/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	14.6	46	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80627007.D

Lab ID: LCSD 240-333235/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	15.9	50	8	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80628005.D

Lab ID: LCSD 240-333681/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	14.6	46	2	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80702011.D

Lab ID: 240-97762-2 MS Client ID: MSA-MW-50D-062618 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	30.8	0.98	14.0	42	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80702012.D

Lab ID: 240-97762-2 MSD Client ID: MSA-MW-50D-062618 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	30.8	15.3	46	9	35	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80628006.D Lab Sample ID: MB 240-332882/7-A

Matrix: Water Date Extracted: 06/22/2018 08:25

Instrument ID: A4AG2 Date Analyzed: 06/28/2018 09:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-332882/8-A	80628007.D	06/28/2018 09:39
DMW-6I-0620118	240-97405-2	80628019.D	06/28/2018 14:45
DMW-6D-0620118	240-97405-3	80628020.D	06/28/2018 15:11
DMW-6S-0620118	240-97405-4	80628021.D	06/28/2018 15:36
MSA-MW-30D-0620118	240-97405-5	80628022.D	06/28/2018 16:02

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-332882/7-A

Matrix: Water | Lab File ID: 80628006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/22/2018 08:25

Sample wt/vol: 250(mL) | Date Analyzed: 06/28/2018 09:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		28-128
4165-62-2	Phenol-d5 (Surr)	54		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	74		17-120
321-60-8	2-Fluorobiphenyl (Surr)	72		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	63		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80627005.D Lab Sample ID: MB 240-333235/15-A

Matrix: Water Date Extracted: 06/25/2018 07:17

Instrument ID: A4AG2 Date Analyzed: 06/27/2018 08:02

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333235/16-A	80627006.D	06/27/2018 08:28
	LCSD 240-333235/17-A	80627007.D	06/27/2018 08:53
DMW-3D-062118	240-97513-3	80627021.D	06/27/2018 14:53
DMW-3I-062118	240-97513-2	80628028.D	06/28/2018 18:35
DMW-3S-062118	240-97513-4	80702009.D	07/02/2018 15:50

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333235/15-A

Matrix: Water | Lab File ID: 80627005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2018 07:17

Sample wt/vol: 250(mL) | Date Analyzed: 06/27/2018 08:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333640 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	89		28-128
4165-62-2	Phenol-d5 (Surr)	63		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	74		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80628003.D Lab Sample ID: MB 240-333681/10-A

Matrix: Water Date Extracted: 06/27/2018 08:28

Instrument ID: A4AG2 Date Analyzed: 06/28/2018 07:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333681/11-A	80628004.D	06/28/2018 08:22
	LCSD 240-333681/12-A	80628005.D	06/28/2018 08:48
MSA-MW-14D-062218	240-97593-2	80628009.D	06/28/2018 10:30
MSA-MW-14I-062218	240-97593-3	80628010.D	06/28/2018 10:55
MSA-MW-31D-062218	240-97593-8	80628011.D	06/28/2018 11:21

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333681/10-A

Matrix: Water | Lab File ID: 80628003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/27/2018 08:28

Sample wt/vol: 250(mL) | Date Analyzed: 06/28/2018 07:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 333841 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	62		17-120
321-60-8	2-Fluorobiphenyl (Surr)	73		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	64		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80702003.D Lab Sample ID: MB 240-333882/22-A

Matrix: Water Date Extracted: 06/28/2018 08:17

Instrument ID: A4AG2 Date Analyzed: 07/02/2018 07:50

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-333882/23-A	80702004.D	07/02/2018 08:15
MSA-MW-50D-062618	240-97762-2	80702010.D	07/02/2018 16:16
MSA-MW-50D-062618 MS	240-97762-2 MS	80702011.D	07/02/2018 16:41
MSA-MW-50D-062618 MSD	240-97762-2 MSD	80702012.D	07/02/2018 17:07
MSA-MW-50I-062618	240-97762-3	80702013.D	07/02/2018 17:33
MSA-MW-50S-062618	240-97762-4	80702014.D	07/02/2018 17:58
MSA-MW-52S-062618	240-97762-5	80702017.D	07/02/2018 19:15
MSA-MW-52I-062618	240-97762-6	80703009.D	07/03/2018 10:13
MSA-MW-52D-062618	240-97762-7	80703010.D	07/03/2018 10:39

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333882/22-A

Matrix: Water | Lab File ID: 80702003.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/28/2018 08:17

Sample wt/vol: 250(mL) | Date Analyzed: 07/02/2018 07:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334308 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		28-128
4165-62-2	Phenol-d5 (Surr)	37		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	51		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	57		33-120

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80625001.D DFTPP Injection Date: 06/25/2018

Instrument ID: A4AG2 DFTPP Injection Time: 07:31

Analysis Batch No.: 333230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.2	
70	Less than 2.0% of mass 69	0.2	(0.4) 1
127	25.0 - 75.0% of mass 198	52.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	28.2	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	11.2	
442	40.0 - 110.0% of mass 198	75.0	
443	15.0 - 24.0% of mass 442	14.5	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-333230/2	80625002.D	06/25/2018	07:50
	STD8 240-333230/3	80625003.D	06/25/2018	08:15
	STD7 240-333230/4	80625004.D	06/25/2018	08:39
	STD6 240-333230/5	80625005.D	06/25/2018	09:04
	STD5 240-333230/6	80625006.D	06/25/2018	09:28
	STD4 240-333230/7	80625007.D	06/25/2018	09:53
	STD3 240-333230/8	80625008.D	06/25/2018	10:18
	STD2 240-333230/9	80625009.D	06/25/2018	10:42
	STD1 240-333230/10	80625010.D	06/25/2018	11:07
	ICV 240-333230/11	80625011.D	06/25/2018	11:32

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-333230/10	80625010.D
Level 2	STD2 240-333230/9	80625009.D
Level 3	STD3 240-333230/8	80625008.D
Level 4	STD4 240-333230/7	80625007.D
Level 5	STD5 240-333230/6	80625006.D
Level 6	STD6 240-333230/5	80625005.D
Level 7	STD7 240-333230/4	80625004.D
Level 8	STD8 240-333230/3	80625003.D
Level 9	STD9 240-333230/2	80625002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.3100	0.2865 0.2963	0.2886 0.2676	0.2549 0.2920	0.2670	Ave		0.2829				6.4		20.0			
N-Nitrosodimethylamine	0.9674	0.8659 1.0138	0.8703 0.9298	0.8585 1.0033	0.9175	Ave		0.9283				6.7		20.0			
Pyridine	0.8555 0.9368	0.7398 0.9468	0.6864 0.8794	0.6769 0.9909	0.7369	Ave		0.8277				14.5		20.0			
Benzaldehyde	+++++ 1.0100	1.5420 0.9381	1.5422 0.8000	1.4312 0.7136	1.3486	Qua	92.758	1.2134	-0.000105		0.0100				0.9970		0.9900
Phenol	1.4468	1.8920 1.4787	1.8795 1.5606	1.6271 1.5201	1.9146	Ave		1.6649			0.8000	11.9		20.0			
Aniline	2.6313	2.7201 2.6653	2.7910 2.6003	2.8268 2.4928	3.0410	Ave		2.7211				6.2		20.0			
Bis(2-chloroethyl)ether	1.7557	1.7794 1.8187	1.9195 1.8395	1.9029 1.8471	2.0209	Ave		1.8604			0.7000	4.6		20.0			
n-Decane	1.7925	1.6370 1.7253	1.6757 1.6357	1.6647 1.6941	1.6715	Ave		1.6871				3.1		20.0			
2-Chlorophenol	1.3636	1.4500 1.4855	1.5639 1.5030	1.4920 1.4584	1.6911	Ave		1.5009			0.8000	6.4		20.0			
1,3-Dichlorobenzene	1.6189	1.5923 1.6752	1.6115 1.6187	1.6246 1.6515	1.6662	Ave		1.6324				1.8		20.0			
1,4-Dichlorobenzene	1.6583	1.7090 1.7388	1.6635 1.6717	1.6617 1.6640	1.7286	Ave		1.6869				2.0		20.0			
Benzyl alcohol	1.1178	0.9988 1.1713	1.1036 1.1332	1.0582 1.1491	1.1078	Ave		1.1050				4.9		20.0			
1,2-Dichlorobenzene	1.6387	1.6534 1.7054	1.7041 1.6630	1.6818 1.6277	1.7769	Ave		1.6814				2.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-333230/10	80625010.D
Level 2	STD2 240-333230/9	80625009.D
Level 3	STD3 240-333230/8	80625008.D
Level 4	STD4 240-333230/7	80625007.D
Level 5	STD5 240-333230/6	80625006.D
Level 6	STD6 240-333230/5	80625005.D
Level 7	STD7 240-333230/4	80625004.D
Level 8	STD8 240-333230/3	80625003.D
Level 9	STD9 240-333230/2	80625002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	88628	3958 128305	7505 156265	13885 217094	34406	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	276574	11962 438978	22629 543040	46773 745785	118255	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	4468 535634	20439 819934	35698 1027191	73758 1473204	189944	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	+++++ 577532	42603 812375	80205 934422	155940 1060962	347621	+++++ 2000	100 3000	200 4000	400 5000	1000
Phenol	DCBd 4	Ave	413635	26137 640256	48871 911437	88645 1130002	246758	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	752281	37577 1154010	72574 1518643	154002 1853007	391927	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	501933	24581 787452	49912 1074291	103668 1373052	260458	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	512456	22614 747037	43574 955277	90695 1259306	215423	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	389849	20031 643178	40667 877817	81286 1084081	217948	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	462838	21997 725338	41904 945351	88510 1227644	214745	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	474090	23609 752854	43255 976340	90529 1236918	222788	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	319580	13798 507147	28697 661801	57653 854172	142773	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	468491	22841 738394	44311 971251	91627 1209987	229017	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	396709	18960 634737	41189 871911	76864 1129761	208480	1000	50.0 1500	100 2000	200 2500	500

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-333230/11 Calibration Date: 06/25/2018 11:32

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80625011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2815		0.995	1.00	-0.5	30.0
N-Nitrosodimethylamine	Ave	0.9283	0.9469		1.02	1.00	2.0	30.0
Pyridine	Ave	0.8277	0.8590		2.08	2.00	3.8	30.0
Benzaldehyde	Qua		1.088	0.0100	2.10	2.00	4.9	30.0
Phenol	Ave	1.665	1.648	0.8000	0.990	1.00	-1.0	30.0
Aniline	Ave	2.721	2.818		1.04	1.00	3.6	30.0
Bis(2-chloroethyl)ether	Ave	1.860	1.796	0.7000	0.965	1.00	-3.5	30.0
2-Chlorophenol	Ave	1.501	1.399	0.8000	0.932	1.00	-6.8	30.0
n-Decane	Ave	1.687	1.752		1.04	1.00	3.9	30.0
1,3-Dichlorobenzene	Ave	1.632	1.618		0.991	1.00	-0.9	30.0
1,4-Dichlorobenzene	Ave	1.687	1.696		1.01	1.00	0.6	30.0
Benzyl alcohol	Ave	1.105	1.157		1.05	1.00	4.7	30.0
1,2-Dichlorobenzene	Ave	1.681	1.652		0.983	1.00	-1.7	30.0
2-Methylphenol	Ave	1.481	1.515	0.7000	1.02	1.00	2.2	30.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.861		0.949	1.00	-5.1	30.0
Indene	Ave	3.101	2.921		1.88	2.00	-5.8	30.0
3 & 4 Methylphenol	Ave	1.453	1.510		1.04	1.00	3.9	30.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.418	0.5000	0.996	1.00	-0.4	30.0
Acetophenone	Ave	2.490	2.561	0.0100	1.03	1.00	2.8	30.0
Hexachloroethane	Ave	0.6840	0.6695	0.3000	0.979	1.00	-2.1	30.0
Nitrobenzene	Ave	0.4110	0.4110	0.2000	1.00	1.00	-0.0	30.0
Isophorone	Ave	0.7168	0.7428	0.4000	1.04	1.00	3.6	30.0
2,4-Dimethylphenol	Ave	0.3302	0.3310	0.2000	1.00	1.00	0.2	30.0
2-Nitrophenol	Ave	0.1922	0.1960	0.1000	1.02	1.00	2.0	30.0
Benzoic acid	Lin1		0.1708		1.75	2.00	-12.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4309	0.3000	0.973	1.00	-2.7	30.0
2,4-Dichlorophenol	Ave	0.2326	0.2357	0.2000	1.01	1.00	1.4	30.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.2862		0.983	1.00	-1.7	30.0
Naphthalene	Ave	1.097	1.072	0.7000	0.977	1.00	-2.3	30.0
4-Chloroaniline	Ave	0.5536	0.5868	0.0100	1.06	1.00	6.0	30.0
2,6-Dichlorophenol	Ave	0.2632	0.2681		1.02	1.00	1.9	30.0
Hexachlorobutadiene	Ave	0.1501	0.1505	0.0100	1.00	1.00	0.3	30.0
Caprolactam	Ave	0.1178	0.1167	0.0100	1.98	2.00	-1.0	30.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3074	0.2000	1.09	1.00	9.5	30.0
2-Methylnaphthalene	Ave	0.7131	0.7089	0.4000	0.994	1.00	-0.6	30.0
1-Methylnaphthalene	Ave	0.6864	0.6695		0.975	1.00	-2.5	30.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3667	0.0500	1.10	1.00	10.0	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5350	0.0100	1.02	1.00	1.8	30.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3745	0.2000	1.04	1.00	4.3	30.0
2,4,5-Trichlorophenol	Lin1		0.3920	0.2000	0.986	1.00	-1.4	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80627001.D DFTPP Injection Date: 06/27/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:24

Analysis Batch No.: 333640

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.8	
70	Less than 2.0% of mass 69	0.3	(0.7) 1
127	25.0 - 75.0% of mass 198	53.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.6	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	10.4	
442	40.0 - 110.0% of mass 198	72.2	
443	15.0 - 24.0% of mass 442	13.8	(19.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-333640/2	80627002.D	06/27/2018	06:45
	STD6 240-333640/3	80627003.D	06/27/2018	07:11
	STD6 240-333640/4	80627004.D	06/27/2018	07:37
	MB 240-333235/15-A	80627005.D	06/27/2018	08:02
	LCS 240-333235/16-A	80627006.D	06/27/2018	08:28
	LCSD 240-333235/17-A	80627007.D	06/27/2018	08:53
DMW-3D-062118	240-97513-3	80627021.D	06/27/2018	14:53

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: STD6 240-333640/2 Calibration Date: 06/27/2018 06:45

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80627002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2808		0.993	1.00	-0.7	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9683		1.04	1.00	4.3	20.0
Pyridine	Ave	0.8277	0.8292		2.00	2.00	0.2	20.0
Benzaldehyde	Qua		0.9382	0.0100	1.73	2.00	-13.5	20.0
Phenol	Ave	1.665	1.770	0.8000	1.06	1.00	6.3	20.0
Aniline	Ave	2.721	2.860		1.05	1.00	5.1	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.716	0.7000	0.922	1.00	-7.8	20.0
n-Decane	Ave	1.687	1.655		0.981	1.00	-1.9	20.0
2-Chlorophenol	Ave	1.501	1.518	0.8000	1.01	1.00	1.2	20.0
1,3-Dichlorobenzene	Ave	1.632	1.634		1.00	1.00	0.1	20.0
1,4-Dichlorobenzene	Ave	1.687	1.679		0.995	1.00	-0.5	20.0
Benzyl alcohol	Ave	1.105	1.113		1.01	1.00	0.7	20.0
1,2-Dichlorobenzene	Ave	1.681	1.663		0.989	1.00	-1.1	20.0
2-Methylphenol	Ave	1.481	1.582	0.7000	1.07	1.00	6.8	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.856		0.947	1.00	-5.3	20.0
Indene	Ave	3.101	2.994		1.93	2.00	-3.4	20.0
3 & 4 Methylphenol	Ave	1.453	1.636		1.13	1.00	12.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.325	0.5000	0.931	1.00	-6.9	20.0
Acetophenone	Ave	2.490	2.362	0.0100	0.949	1.00	-5.1	20.0
Hexachloroethane	Ave	0.6840	0.6560	0.3000	0.959	1.00	-4.1	20.0
Nitrobenzene	Ave	0.4110	0.4235	0.2000	1.03	1.00	3.0	20.0
Isophorone	Ave	0.7168	0.7482	0.4000	1.04	1.00	4.4	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3783	0.2000	1.15	1.00	14.6	20.0
2-Nitrophenol	Ave	0.1922	0.1980	0.1000	1.03	1.00	3.0	20.0
Benzoic acid	Lin1		0.1516		1.57	2.00	-21.6*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4408	0.3000	0.995	1.00	-0.5	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2831	0.2000	1.22	1.00	21.7*	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3025		1.04	1.00	3.9	20.0
Naphthalene	Ave	1.097	1.113	0.7000	1.01	1.00	1.4	20.0
4-Chloroaniline	Ave	0.5536	0.5888	0.0100	1.06	1.00	6.4	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2886		1.10	1.00	9.7	20.0
Hexachlorobutadiene	Ave	0.1501	0.1583	0.0100	1.05	1.00	5.5	20.0
Caprolactam	Ave	0.1178	0.1205	0.0100	2.05	2.00	2.3	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3090	0.2000	1.10	1.00	10.0	20.0
2-Methylnaphthalene	Ave	0.7131	0.7454	0.4000	1.05	1.00	4.5	20.0
1-Methylnaphthalene	Ave	0.6864	0.6999		1.02	1.00	2.0	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3419	0.0500	1.03	1.00	2.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5605	0.0100	1.07	1.00	6.6	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3826	0.2000	1.07	1.00	6.6	20.0
2,4,5-Trichlorophenol	Lin1		0.3816	0.2000	0.961	1.00	-3.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80628001.D DFTPP Injection Date: 06/28/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:41

Analysis Batch No.: 333841

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.9	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.6	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.7	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	28.5	
365	Greater than 0.75% of mass 198	3.3	
441	Present, but less than mass 443	9.8	
442	40.0 - 110.0% of mass 198	66.0	
443	15.0 - 24.0% of mass 442	12.8	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-333841/2	80628002.D	06/28/2018	07:29
	MB 240-333681/10-A	80628003.D	06/28/2018	07:56
	LCS 240-333681/11-A	80628004.D	06/28/2018	08:22
	LCSD 240-333681/12-A	80628005.D	06/28/2018	08:48
	MB 240-332882/7-A	80628006.D	06/28/2018	09:13
	LCS 240-332882/8-A	80628007.D	06/28/2018	09:39
MSA-MW-14D-062218	240-97593-2	80628009.D	06/28/2018	10:30
MSA-MW-14I-062218	240-97593-3	80628010.D	06/28/2018	10:55
MSA-MW-31D-062218	240-97593-8	80628011.D	06/28/2018	11:21
DMW-6I-0620118	240-97405-2	80628019.D	06/28/2018	14:45
DMW-6D-0620118	240-97405-3	80628020.D	06/28/2018	15:11
DMW-6S-0620118	240-97405-4	80628021.D	06/28/2018	15:36
MSA-MW-30D-0620118	240-97405-5	80628022.D	06/28/2018	16:02
DMW-3I-062118	240-97513-2	80628028.D	06/28/2018	18:35

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: STD6 240-333841/2 Calibration Date: 06/28/2018 07:29

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80628002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.3044		1.08	1.00	7.6	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9834		1.06	1.00	5.9	20.0
Pyridine	Ave	0.8277	0.9120		2.20	2.00	10.2	20.0
Benzaldehyde	Qua		0.8827	0.0100	1.60	2.00	-20.0	20.0
Phenol	Ave	1.665	1.499	0.8000	0.900	1.00	-10.0	20.0
Aniline	Ave	2.721	2.702		0.993	1.00	-0.7	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.762	0.7000	0.947	1.00	-5.3	20.0
n-Decane	Ave	1.687	1.660		0.984	1.00	-1.6	20.0
2-Chlorophenol	Ave	1.501	1.487	0.8000	0.991	1.00	-0.9	20.0
1,3-Dichlorobenzene	Ave	1.632	1.652		1.01	1.00	1.2	20.0
1,4-Dichlorobenzene	Ave	1.687	1.725		1.02	1.00	2.3	20.0
Benzyl alcohol	Ave	1.105	0.9350		0.846	1.00	-15.4	20.0
1,2-Dichlorobenzene	Ave	1.681	1.682		1.00	1.00	0.0	20.0
2-Methylphenol	Ave	1.481	1.209	0.7000	0.816	1.00	-18.4	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.921		0.969	1.00	-3.1	20.0
Indene	Ave	3.101	3.094		2.00	2.00	-0.2	20.0
3 & 4 Methylphenol	Ave	1.453	1.107		0.762	1.00	-23.8*	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.369	0.5000	0.962	1.00	-3.8	20.0
Acetophenone	Ave	2.490	2.414	0.0100	0.970	1.00	-3.0	20.0
Hexachloroethane	Ave	0.6840	0.6611	0.3000	0.967	1.00	-3.3	20.0
Nitrobenzene	Ave	0.4110	0.4297	0.2000	1.05	1.00	4.5	20.0
Isophorone	Ave	0.7168	0.7713	0.4000	1.08	1.00	7.6	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3395	0.2000	1.03	1.00	2.8	20.0
2-Nitrophenol	Ave	0.1922	0.2049	0.1000	1.07	1.00	6.6	20.0
Benzoic acid	Lin1		0.2202		2.21	2.00	10.4	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4546	0.3000	1.03	1.00	2.6	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2207	0.2000	0.949	1.00	-5.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3060		1.05	1.00	5.0	20.0
Naphthalene	Ave	1.097	1.134	0.7000	1.03	1.00	3.3	20.0
4-Chloroaniline	Ave	0.5536	0.6160	0.0100	1.11	1.00	11.3	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2835		1.08	1.00	7.7	20.0
Hexachlorobutadiene	Ave	0.1501	0.1638	0.0100	1.09	1.00	9.1	20.0
Caprolactam	Ave	0.1178	0.1240	0.0100	2.11	2.00	5.3	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3189	0.2000	1.14	1.00	13.5	20.0
2-Methylnaphthalene	Ave	0.7131	0.7564	0.4000	1.06	1.00	6.1	20.0
1-Methylnaphthalene	Ave	0.6864	0.7126		1.04	1.00	3.8	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3532	0.0500	1.06	1.00	5.9	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5635	0.0100	1.07	1.00	7.2	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3921	0.2000	1.09	1.00	9.2	20.0
2,4,5-Trichlorophenol	Lin1		0.3907	0.2000	0.983	1.00	-1.7	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80702001.D DFTPP Injection Date: 07/02/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:36

Analysis Batch No.: 334308

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.5	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.9	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.0	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	28.8	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	9.4	
442	40.0 - 110.0% of mass 198	66.3	
443	15.0 - 24.0% of mass 442	12.5	(18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334308/2	80702002.D	07/02/2018	07:22
	MB 240-333882/22-A	80702003.D	07/02/2018	07:50
	LCS 240-333882/23-A	80702004.D	07/02/2018	08:15

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: STD6 240-334308/2 Calibration Date: 07/02/2018 07:22

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80702002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2843		1.01	1.00	0.5	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9047		0.975	1.00	-2.5	20.0
Pyridine	Ave	0.8277	0.8222		1.99	2.00	-0.7	20.0
Benzaldehyde	Qua		0.9530	0.0100	1.76	2.00	-11.8	20.0
Phenol	Ave	1.665	1.336	0.8000	0.803	1.00	-19.7	20.0
Aniline	Ave	2.721	2.806		1.03	1.00	3.1	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.885	0.7000	1.01	1.00	1.3	20.0
n-Decane	Ave	1.687	1.615		0.957	1.00	-4.3	20.0
2-Chlorophenol	Ave	1.501	1.387	0.8000	0.924	1.00	-7.6	20.0
1,3-Dichlorobenzene	Ave	1.632	1.667		1.02	1.00	2.1	20.0
1,4-Dichlorobenzene	Ave	1.687	1.730		1.03	1.00	2.6	20.0
Benzyl alcohol	Ave	1.105	1.195		1.08	1.00	8.2	20.0
1,2-Dichlorobenzene	Ave	1.681	1.731		1.03	1.00	3.0	20.0
2-Methylphenol	Ave	1.481	1.432	0.7000	0.967	1.00	-3.3	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	3.147		1.04	1.00	4.4	20.0
Indene	Ave	3.101	3.257		2.10	2.00	5.0	20.0
3 & 4 Methylphenol	Ave	1.453	1.508		1.04	1.00	3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.521	0.5000	1.07	1.00	6.8	20.0
Acetophenone	Ave	2.490	2.734	0.0100	1.10	1.00	9.8	20.0
Hexachloroethane	Ave	0.6840	0.6812	0.3000	0.996	1.00	-0.4	20.0
Nitrobenzene	Ave	0.4110	0.4309	0.2000	1.05	1.00	4.8	20.0
Isophorone	Ave	0.7168	0.7598	0.4000	1.06	1.00	6.0	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3805	0.2000	1.15	1.00	15.3	20.0
2-Nitrophenol	Ave	0.1922	0.2106	0.1000	1.10	1.00	9.6	20.0
Benzoic acid	Lin1		0.1967		1.99	2.00	-0.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4407	0.3000	0.995	1.00	-0.5	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2622	0.2000	1.13	1.00	12.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3101		1.06	1.00	6.5	20.0
Naphthalene	Ave	1.097	1.135	0.7000	1.03	1.00	3.4	20.0
4-Chloroaniline	Ave	0.5536	0.5875	0.0100	1.06	1.00	6.1	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2998		1.14	1.00	13.9	20.0
Hexachlorobutadiene	Ave	0.1501	0.1671	0.0100	1.11	1.00	11.3	20.0
Caprolactam	Ave	0.1178	0.1197	0.0100	2.03	2.00	1.6	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3267	0.2000	1.16	1.00	16.3	20.0
2-Methylnaphthalene	Ave	0.7131	0.7638	0.4000	1.07	1.00	7.1	20.0
1-Methylnaphthalene	Ave	0.6864	0.7219		1.05	1.00	5.2	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3515	0.0500	1.05	1.00	5.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5873	0.0100	1.12	1.00	11.7	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.4055	0.2000	1.13	1.00	13.0	20.0
2,4,5-Trichlorophenol	Lin1		0.4162	0.2000	1.04	1.00	4.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80702001.D DFTPP Injection Date: 07/02/2018

Instrument ID: A4AG2 DFTPP Injection Time: 12:31

Analysis Batch No.: 334407

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	46.8	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	42.7	
70	Less than 2.0% of mass 69	0.3	(0.6) 1
127	25.0 - 75.0% of mass 198	52.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	29.5	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.9	
442	40.0 - 110.0% of mass 198	75.0	
443	15.0 - 24.0% of mass 442	14.3	(19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334407/2	80702002.D	07/02/2018	12:50
DMW-3S-062118	240-97513-4	80702009.D	07/02/2018	15:50
MSA-MW-50D-062618	240-97762-2	80702010.D	07/02/2018	16:16
MSA-MW-50D-062618 MS	240-97762-2 MS	80702011.D	07/02/2018	16:41
MSA-MW-50D-062618 MSD	240-97762-2 MSD	80702012.D	07/02/2018	17:07
MSA-MW-50I-062618	240-97762-3	80702013.D	07/02/2018	17:33
MSA-MW-50S-062618	240-97762-4	80702014.D	07/02/2018	17:58
MSA-MW-52S-062618	240-97762-5	80702017.D	07/02/2018	19:15

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: STD6 240-334407/2 Calibration Date: 07/02/2018 12:50

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80702002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2741		0.969	1.00	-3.1	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9516		1.03	1.00	2.5	20.0
Pyridine	Ave	0.8277	0.8565		2.07	2.00	3.5	20.0
Benzaldehyde	Qua		0.9300	0.0100	1.71	2.00	-14.5	20.0
Phenol	Ave	1.665	1.499	0.8000	0.900	1.00	-10.0	20.0
Aniline	Ave	2.721	2.437		0.896	1.00	-10.4	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.689	0.7000	0.908	1.00	-9.2	20.0
2-Chlorophenol	Ave	1.501	1.372	0.8000	0.914	1.00	-8.6	20.0
n-Decane	Ave	1.687	1.674		0.992	1.00	-0.8	20.0
1,3-Dichlorobenzene	Ave	1.632	1.680		1.03	1.00	2.9	20.0
1,4-Dichlorobenzene	Ave	1.687	1.718		1.02	1.00	1.9	20.0
Benzyl alcohol	Ave	1.105	1.086		0.983	1.00	-1.7	20.0
1,2-Dichlorobenzene	Ave	1.681	1.673		0.995	1.00	-0.5	20.0
2-Methylphenol	Ave	1.481	1.410	0.7000	0.952	1.00	-4.8	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.586		0.858	1.00	-14.2	20.0
Indene	Ave	3.101	2.910		1.88	2.00	-6.2	20.0
3 & 4 Methylphenol	Ave	1.453	1.490		1.03	1.00	2.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.296	0.5000	0.911	1.00	-8.9	20.0
Acetophenone	Ave	2.490	2.305	0.0100	0.926	1.00	-7.4	20.0
Hexachloroethane	Ave	0.6840	0.6492	0.3000	0.949	1.00	-5.1	20.0
Nitrobenzene	Ave	0.4110	0.4261	0.2000	1.04	1.00	3.7	20.0
Isophorone	Ave	0.7168	0.7469	0.4000	1.04	1.00	4.2	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3686	0.2000	1.12	1.00	11.6	20.0
2-Nitrophenol	Ave	0.1922	0.2069	0.1000	1.08	1.00	7.7	20.0
Benzoic acid	Lin1		0.1871		1.90	2.00	-5.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4423	0.3000	0.998	1.00	-0.2	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2699	0.2000	1.16	1.00	16.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3079		1.06	1.00	5.7	20.0
Naphthalene	Ave	1.097	1.142	0.7000	1.04	1.00	4.1	20.0
4-Chloroaniline	Ave	0.5536	0.6084	0.0100	1.10	1.00	9.9	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2977		1.13	1.00	13.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1676	0.0100	1.12	1.00	11.6	20.0
Caprolactam	Ave	0.1178	0.1152	0.0100	1.96	2.00	-2.2	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3287	0.2000	1.17	1.00	17.0	20.0
2-Methylnaphthalene	Ave	0.7131	0.7779	0.4000	1.09	1.00	9.1	20.0
1-Methylnaphthalene	Ave	0.6864	0.7249		1.06	1.00	5.6	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3372	0.0500	1.01	1.00	1.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5696	0.0100	1.08	1.00	8.4	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3993	0.2000	1.11	1.00	11.3	20.0
2,4,5-Trichlorophenol	Lin1		0.4082	0.2000	1.03	1.00	2.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab File ID: 80703001.D DFTPP Injection Date: 07/03/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:25

Analysis Batch No.: 334518

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.2	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.9	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.6	
442	40.0 - 110.0% of mass 198	71.8	
443	15.0 - 24.0% of mass 442	13.6	(19.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334518/2	80703002.D	07/03/2018	07:10
MSA-MW-52I-062618	240-97762-6	80703009.D	07/03/2018	10:13
MSA-MW-52D-062618	240-97762-7	80703010.D	07/03/2018	10:39

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: STD6 240-334518/2 Calibration Date: 07/03/2018 07:10

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80703002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.3104		1.10	1.00	9.7	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9653		1.04	1.00	4.0	20.0
Pyridine	Ave	0.8277	0.9331		2.25	2.00	12.7	20.0
Benzaldehyde	Qua		0.9681	0.0100	1.80	2.00	-10.0	20.0
Phenol	Ave	1.665	1.452	0.8000	0.872	1.00	-12.8	20.0
Aniline	Ave	2.721	2.589		0.951	1.00	-4.9	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.897	0.7000	1.02	1.00	2.0	20.0
2-Chlorophenol	Ave	1.501	1.418	0.8000	0.944	1.00	-5.6	20.0
n-Decane	Ave	1.687	1.766		1.05	1.00	4.7	20.0
1,3-Dichlorobenzene	Ave	1.632	1.739		1.07	1.00	6.5	20.0
1,4-Dichlorobenzene	Ave	1.687	1.769		1.05	1.00	4.9	20.0
Benzyl alcohol	Ave	1.105	1.139		1.03	1.00	3.0	20.0
1,2-Dichlorobenzene	Ave	1.681	1.735		1.03	1.00	3.2	20.0
2-Methylphenol	Ave	1.481	1.492	0.7000	1.01	1.00	0.7	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.894		0.960	1.00	-4.0	20.0
Indene	Ave	3.101	3.104		2.00	2.00	0.1	20.0
3 & 4 Methylphenol	Ave	1.453	1.559		1.07	1.00	7.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.418	0.5000	0.996	1.00	-0.4	20.0
Acetophenone	Ave	2.490	2.482	0.0100	0.997	1.00	-0.3	20.0
Hexachloroethane	Ave	0.6840	0.6881	0.3000	1.01	1.00	0.6	20.0
Nitrobenzene	Ave	0.4110	0.4384	0.2000	1.07	1.00	6.7	20.0
Isophorone	Ave	0.7168	0.7616	0.4000	1.06	1.00	6.2	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3647	0.2000	1.10	1.00	10.5	20.0
2-Nitrophenol	Ave	0.1922	0.2104	0.1000	1.09	1.00	9.5	20.0
Benzoic acid	Lin1		0.1748		1.78	2.00	-10.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4547	0.3000	1.03	1.00	2.7	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2700	0.2000	1.16	1.00	16.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3189		1.09	1.00	9.5	20.0
Naphthalene	Ave	1.097	1.174	0.7000	1.07	1.00	6.9	20.0
4-Chloroaniline	Ave	0.5536	0.6211	0.0100	1.12	1.00	12.2	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2977		1.13	1.00	13.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1703	0.0100	1.13	1.00	13.4	20.0
Caprolactam	Ave	0.1178	0.1211	0.0100	2.06	2.00	2.8	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3322	0.2000	1.18	1.00	18.3	20.0
2-Methylnaphthalene	Ave	0.7131	0.7900	0.4000	1.11	1.00	10.8	20.0
1-Methylnaphthalene	Ave	0.6864	0.7427		1.08	1.00	8.2	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3444	0.0500	1.03	1.00	3.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.6003	0.0100	1.14	1.00	14.2	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3977	0.2000	1.11	1.00	10.8	20.0
2,4,5-Trichlorophenol	Lin1		0.4130	0.2000	1.04	1.00	3.7	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333230/5 Date Analyzed: 06/25/2018 09:04

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80625005.D Heated Purge: (Y/N) N

Calibration ID: 45715

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		114358	6.82	562534	7.89	288693	9.39
UPPER LIMIT		228716	7.32	1125068	8.39	577386	9.89
LOWER LIMIT		57179	6.32	281267	7.39	144347	8.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-333230/11		117482	6.81	601686	7.88	307584	9.39
STD6 240-333640/2 CCVIS		133035	6.84	605307	7.91	310160	9.41
STD6 240-333841/2 CCVIS		136354	6.83	622007	7.90	322147	9.40
STD6 240-334308/2 CCVIS		122074	6.81	636479	7.88	331532	9.37
STD6 240-334407/2 CCVIS		150324	6.81	670092	7.88	354195	9.38
STD6 240-334518/2 CCVIS		126654	6.81	595888	7.87	311476	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333230/5 Date Analyzed: 06/25/2018 09:04

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80625005.D Heated Purge: (Y/N) N

Calibration ID: 45715

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		490467	10.67	467623	13.63	445495	16.00
UPPER LIMIT		980934	11.17	935246	14.13	890990	16.50
LOWER LIMIT		245234	10.17	233812	13.13	222748	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-333230/11		514811	10.68	493744	13.63	466700	16.01
STD6 240-333640/2 CCVIS		535427	10.70	527182	13.73	508315	16.17
STD6 240-333841/2 CCVIS		544993	10.69	550214	13.70	524252	16.14
STD6 240-334308/2 CCVIS		572751	10.65	548720	13.65	499109	16.08
STD6 240-334407/2 CCVIS		599412	10.66	605996	13.66	580315	16.09
STD6 240-334518/2 CCVIS		534742	10.66	536224	13.65	508215	16.08

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333640/2 Date Analyzed: 06/27/2018 06:45

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80627002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		133035	6.84	605307	7.91	310160	9.41
UPPER LIMIT		266070	7.34	1210614	8.41	620320	9.91
LOWER LIMIT		66518	6.34	302654	7.41	155080	8.91
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-333640/3 CCV		132316	6.84	589260	7.90	295001	9.40
STD6 240-333640/4 CCV		126895	6.84	594744	7.90	266547	9.41
MB 240-333235/15-A		121021	6.84	620788	7.90	300073	9.40
LCS 240-333235/16-A		112309	6.84	550336	7.90	271265	9.40
LCSD 240-333235/17-A		118628	6.84	557050	7.90	291157	9.40
240-97513-3	DMW-3D-062118	126959	6.84	619113	7.90	301895	9.40

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333640/2 Date Analyzed: 06/27/2018 06:45

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80627002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		535427	10.70	527182	13.73	508315	16.17
UPPER LIMIT		1070854	11.20	1054364	14.23	1016630	16.67
LOWER LIMIT		267714	10.20	263591	13.23	254158	15.67
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-333640/3 CCV		530116	10.70	471438	13.72	454902	16.17
STD6 240-333640/4 CCV		548269	10.69	467079	13.72	467407	16.16
MB 240-333235/15-A		576709	10.69	489775	13.72	474860	16.16
LCS 240-333235/16-A		484851	10.69	493924	13.72	451948	16.17
LCSD 240-333235/17-A		513111	10.69	512085	13.72	465495	16.16
240-97513-3	DMW-3D-062118	592058	10.69	511725	13.71	479110	16.16

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333841/2 Date Analyzed: 06/28/2018 07:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80628002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		136354	6.83	622007	7.90	322147	9.40
UPPER LIMIT		272708	7.33	1244014	8.40	644294	9.90
LOWER LIMIT		68177	6.33	311004	7.40	161074	8.90
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-333681/10-A		109523	6.83	639273	7.89	270636	9.39
LCS 240-333681/11-A		110711	6.83	554561	7.89	279917	9.39
LCSD 240-333681/12-A		114164	6.83	557778	7.89	286173	9.39
MB 240-332882/7-A		140020	6.83	673460	7.89	271910	9.39
LCS 240-332882/8-A		113663	6.83	573877	7.89	294458	9.39
240-97593-2	MSA-MW-14D-062218	130635	6.83	587246	7.89	281674	9.39
240-97593-3	MSA-MW-14I-062218	132816	6.83	585386	7.89	330059	9.39
240-97593-8	MSA-MW-31D-062218	133482	6.83	618624	7.89	287772	9.39
240-97405-2	DMW-6I-0620118	111711	6.83	551769	7.89	252036	9.39
240-97405-3	DMW-6D-0620118	118722	6.83	540489	7.89	249198	9.39
240-97405-4	DMW-6S-0620118	126206	6.83	538598	7.89	300743	9.39
240-97405-5	MSA-MW-30D-0620118	138657	6.83	650950	7.89	270729	9.39
240-97513-2	DMW-3I-062118	127300	6.83	616264	7.89	271696	9.39

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-333841/2 Date Analyzed: 06/28/2018 07:29

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80628002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		544993	10.69	550214	13.70	524252	16.14
UPPER LIMIT		1089986	11.19	1100428	14.20	1048504	16.64
LOWER LIMIT		272497	10.19	275107	13.20	262126	15.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-333681/10-A		628667	10.68	562666	13.70	531736	16.14
LCS 240-333681/11-A		486957	10.68	492732	13.70	449394	16.13
LCSD 240-333681/12-A		509763	10.68	522859	13.70	464789	16.13
MB 240-332882/7-A		612958	10.68	532577	13.69	514312	16.13
LCS 240-332882/8-A		511216	10.68	528337	13.70	465753	16.13
240-97593-2	MSA-MW-14D-062218	602990	10.68	550891	13.69	534468	16.13
240-97593-3	MSA-MW-14I-062218	621789	10.68	571322	13.69	534522	16.13
240-97593-8	MSA-MW-31D-062218	625189	10.68	576803	13.69	554953	16.13
240-97405-2	DMW-6I-0620118	591503	10.68	510277	13.69	479558	16.13
240-97405-3	DMW-6D-0620118	588006	10.68	518633	13.69	483162	16.13
240-97405-4	DMW-6S-0620118	606734	10.68	566730	13.69	534639	16.13
240-97405-5	MSA-MW-30D-0620118	636012	10.68	559203	13.69	528003	16.13
240-97513-2	DMW-3I-062118	600527	10.68	524590	13.69	488752	16.13

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334308/2 Date Analyzed: 07/02/2018 07:22

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		122074	6.81	636479	7.88	331532	9.37
UPPER LIMIT		244148	7.31	1272958	8.38	663064	9.87
LOWER LIMIT		61037	6.31	318240	7.38	165766	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-333882/22-A		132197	6.81	700940	7.87	402281	9.37
LCS 240-333882/23-A		114974	6.81	602398	7.87	319173	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334308/2 Date Analyzed: 07/02/2018 07:22

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		572751	10.65	548720	13.65	499109	16.08
UPPER LIMIT		1145502	11.15	1097440	14.15	998218	16.58
LOWER LIMIT		286376	10.15	274360	13.15	249555	15.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-333882/22-A		750485	10.65	622164	13.65	593733	16.08
LCS 240-333882/23-A		557601	10.65	543551	13.65	478082	16.08

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334407/2 Date Analyzed: 07/02/2018 12:50

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		150324	6.81	670092	7.88	354195	9.38
UPPER LIMIT		300648	7.31	1340184	8.38	708390	9.88
LOWER LIMIT		75162	6.31	335046	7.38	177098	8.88
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97513-4	DMW-3S-062118	135284	6.81	661862	7.88	353943	9.38
240-97762-2	MSA-MW-50D-062618	122398	6.81	653064	7.88	355436	9.38
240-97762-2 MS	MSA-MW-50D-062618 MS	119500	6.81	613957	7.88	310767	9.38
240-97762-2 MSD	MSA-MW-50D-062618 MSD	133952	6.81	638794	7.88	331035	9.38
240-97762-3	MSA-MW-50I-062618	130512	6.81	634242	7.88	338812	9.38
240-97762-4	MSA-MW-50S-062618	127362	6.81	646635	7.88	352185	9.38
240-97762-5	MSA-MW-52S-062618	135256	6.81	618300	7.88	339085	9.38

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334407/2 Date Analyzed: 07/02/2018 12:50

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		599412	10.66	605996	13.66	580315	16.09
UPPER LIMIT		1198824	11.16	1211992	14.16	1160630	16.59
LOWER LIMIT		299706	10.16	302998	13.16	290158	15.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97513-4	DMW-3S-062118	684344	10.66	557943	13.66	535834	16.09
240-97762-2	MSA-MW-50D-062618	690376	10.66	587886	13.66	553699	16.09
240-97762-2 MS	MSA-MW-50D-062618 MS	556147	10.66	541085	13.67	471823	16.09
240-97762-2 MSD	MSA-MW-50D-062618 MSD	581145	10.66	586258	13.67	511995	16.09
240-97762-3	MSA-MW-50I-062618	656141	10.66	556829	13.66	508922	16.09
240-97762-4	MSA-MW-50S-062618	669266	10.66	572454	13.66	526878	16.09
240-97762-5	MSA-MW-52S-062618	633269	10.66	561770	13.66	523949	16.09

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334518/2 Date Analyzed: 07/03/2018 07:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80703002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		126654	6.81	595888	7.87	311476	9.37
UPPER LIMIT		253308	7.31	1191776	8.37	622952	9.87
LOWER LIMIT		63327	6.31	297944	7.37	155738	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97762-6	MSA-MW-52I-062618	120544	6.81	600848	7.87	301272	9.37
240-97762-7	MSA-MW-52D-062618	132083	6.81	629798	7.87	301436	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD6 240-334518/2 Date Analyzed: 07/03/2018 07:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80703002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		534742	10.66	536224	13.65	508215	16.08
UPPER LIMIT		1069484	11.16	1072448	14.15	1016430	16.58
LOWER LIMIT		267371	10.16	268112	13.15	254108	15.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97762-6	MSA-MW-52I-062618	606953	10.66	519222	13.65	502812	16.08
240-97762-7	MSA-MW-52D-062618	611957	10.65	512308	13.65	501322	16.07

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 06/25/2018 07:31

Analysis Batch Number: 333230 End Date: 06/26/2018 01:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-333230/1		06/25/2018 07:31	1	80625001.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-333230/2 IC		06/25/2018 07:50	1	80625002.D	RXI-5SILMS/IIG 0.25(mm)
STD8 240-333230/3 IC		06/25/2018 08:15	1	80625003.D	RXI-5SILMS/IIG 0.25(mm)
STD7 240-333230/4 IC		06/25/2018 08:39	1	80625004.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-333230/5 ICIS		06/25/2018 09:04	1	80625005.D	RXI-5SILMS/IIG 0.25(mm)
STD5 240-333230/6 IC		06/25/2018 09:28	1	80625006.D	RXI-5SILMS/IIG 0.25(mm)
STD4 240-333230/7 IC		06/25/2018 09:53	1	80625007.D	RXI-5SILMS/IIG 0.25(mm)
STD3 240-333230/8 IC		06/25/2018 10:18	1	80625008.D	RXI-5SILMS/IIG 0.25(mm)
STD2 240-333230/9 IC		06/25/2018 10:42	1	80625009.D	RXI-5SILMS/IIG 0.25(mm)
STD1 240-333230/10 IC		06/25/2018 11:07	1	80625010.D	RXI-5SILMS/IIG 0.25(mm)
ICV 240-333230/11		06/25/2018 11:32	1	80625011.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-333230/12 IC		06/25/2018 11:57	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-333230/13 IC		06/25/2018 14:58	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-333230/14 IC		06/25/2018 16:51	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-333230/15 IC		06/25/2018 17:17	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-333230/16 IC		06/25/2018 17:42	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-333230/17 IC		06/25/2018 18:08	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-333230/18 IC		06/25/2018 18:33	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-333230/19 IC		06/25/2018 18:58	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-333230/20		06/25/2018 19:24	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		06/26/2018 00:53	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		06/26/2018 01:18	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 06/27/2018 06:24

Analysis Batch Number: 333640 End Date: 06/27/2018 14:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-333640/1		06/27/2018 06:24	1	80627001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-333640/2 CCVIS		06/27/2018 06:45	1	80627002.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-333640/3 CCV		06/27/2018 07:11	1	80627003.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-333640/4 CCV		06/27/2018 07:37	1	80627004.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-333235/15-A		06/27/2018 08:02	1	80627005.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-333235/16-A		06/27/2018 08:28	1	80627006.D	RXI-5SILMS/IIG 0.25(mm)
LCSD 240-333235/17-A		06/27/2018 08:53	1	80627007.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		06/27/2018 10:36	10		RXI-5SILMS/IIG 0.25(mm)
240-97513-3		06/27/2018 14:53	1	80627021.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 06/28/2018 06:41

Analysis Batch Number: 333841 End Date: 06/28/2018 18:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-333841/1		06/28/2018 06:41	1	80628001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-333841/2 CCVIS		06/28/2018 07:29	1	80628002.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-333681/10-A		06/28/2018 07:56	1	80628003.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-333681/11-A		06/28/2018 08:22	1	80628004.D	RXI-5SILMS/IIG 0.25(mm)
LCSD 240-333681/12-A		06/28/2018 08:48	1	80628005.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-332882/7-A		06/28/2018 09:13	1	80628006.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-332882/8-A		06/28/2018 09:39	1	80628007.D	RXI-5SILMS/IIG 0.25(mm)
240-97593-2		06/28/2018 10:30	1	80628009.D	RXI-5SILMS/IIG 0.25(mm)
240-97593-3		06/28/2018 10:55	1	80628010.D	RXI-5SILMS/IIG 0.25(mm)
240-97593-8		06/28/2018 11:21	1	80628011.D	RXI-5SILMS/IIG 0.25(mm)
240-97405-2		06/28/2018 14:45	1	80628019.D	RXI-5SILMS/IIG 0.25(mm)
240-97405-3		06/28/2018 15:11	1	80628020.D	RXI-5SILMS/IIG 0.25(mm)
240-97405-4		06/28/2018 15:36	1	80628021.D	RXI-5SILMS/IIG 0.25(mm)
240-97405-5		06/28/2018 16:02	1	80628022.D	RXI-5SILMS/IIG 0.25(mm)
240-97513-2		06/28/2018 18:35	5	80628028.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/02/2018 06:36

Analysis Batch Number: 334308 End Date: 07/02/2018 09:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-334308/1		07/02/2018 06:36	1	80702001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-334308/2 CCVIS		07/02/2018 07:22	1	80702002.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-333882/22-A		07/02/2018 07:50	1	80702003.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-333882/23-A		07/02/2018 08:15	1	80702004.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/02/2018 08:41	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/02/2018 09:06	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/02/2018 12:31

Analysis Batch Number: 334407 End Date: 07/02/2018 19:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-334407/1		07/02/2018 12:31	1	80702001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-334407/2 CCVIS		07/02/2018 12:50	1	80702002.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/02/2018 13:16	1		RXI-5SILMS/IIG 0.25(mm)
240-97513-4		07/02/2018 15:50	20	80702009.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-2		07/02/2018 16:16	1	80702010.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-2 MS		07/02/2018 16:41	1	80702011.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-2 MSD		07/02/2018 17:07	1	80702012.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-3		07/02/2018 17:33	1	80702013.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-4		07/02/2018 17:58	1	80702014.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-5		07/02/2018 19:15	4	80702017.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/03/2018 06:25

Analysis Batch Number: 334518 End Date: 07/03/2018 14:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-334518/1		07/03/2018 06:25	1	80703001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-334518/2 CCVIS		07/03/2018 07:10	1	80703002.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 07:35	1		RXI-5SILMS/IIG 0.25(mm)
240-97762-6		07/03/2018 10:13	20	80703009.D	RXI-5SILMS/IIG 0.25(mm)
240-97762-7		07/03/2018 10:39	10	80703010.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 12:42	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 13:07	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 13:33	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 13:59	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/03/2018 14:50	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 332882 Batch Start Date: 06/22/18 08:25 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-97405-D-2	DMW-6I-0620118	3510C, 8270D	T	270 mL	5 mL	4 SU	2 SU		
240-97405-F-3	DMW-6D-0620118	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-97405-H-4	DMW-6S-0620118	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-97405-F-5	MSA-MW-30D-0620118	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
MB 240-332882/7		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-332882/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-97405-D-2	DMW-6I-0620118	3510C, 8270D	T	0.4 mL					
240-97405-F-3	DMW-6D-0620118	3510C, 8270D	T	0.4 mL					
240-97405-H-4	DMW-6S-0620118	3510C, 8270D	T	0.4 mL					
240-97405-F-5	MSA-MW-30D-0620118	3510C, 8270D	T	0.4 mL					
MB 240-332882/7		3510C, 8270D		0.4 mL					
LCS 240-332882/8		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3649906
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333235 Batch Start Date: 06/25/18 07:17 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-97513-E-2	DMW-3I-062118	3510C, 8270D	T	270 mL	5 mL	6 SU	2 SU		
240-97513-E-3	DMW-3D-062118	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-97513-K-4	DMW-3S-062118	3510C, 8270D	T	250 mL	5 mL	7 SU	2 SU		
MB 240-333235/15		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-333235/16		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
LCSD 240-333235/17		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-97513-E-2	DMW-3I-062118	3510C, 8270D	T	0.4 mL					
240-97513-E-3	DMW-3D-062118	3510C, 8270D	T	0.4 mL					
240-97513-K-4	DMW-3S-062118	3510C, 8270D	T	0.4 mL					
MB 240-333235/15		3510C, 8270D		0.4 mL					
LCS 240-333235/16		3510C, 8270D		0.4 mL					
LCSD 240-333235/17		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3649906
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333235 Batch Start Date: 06/25/18 07:17 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333681 Batch Start Date: 06/27/18 08:28 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-97593-D-2	MSA-MW-14D-062218	3510C, 8270D	T	270 mL	5 mL	10 SU	2 SU		
240-97593-D-3	MSA-MW-14I-062218	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-97593-E-8	MSA-MW-31D-062218	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
MB 240-333681/10		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-333681/11		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
LCSD 240-333681/12		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-97593-D-2	MSA-MW-14D-062218	3510C, 8270D	T	0.4 mL					
240-97593-D-3	MSA-MW-14I-062218	3510C, 8270D	T	0.4 mL					
240-97593-E-8	MSA-MW-31D-062218	3510C, 8270D	T	0.4 mL					
MB 240-333681/10		3510C, 8270D		0.4 mL					
LCS 240-333681/11		3510C, 8270D		0.4 mL					
LCSD 240-333681/12		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3649906
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333681 Batch Start Date: 06/27/18 08:28 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333882 Batch Start Date: 06/28/18 08:17 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-97762-N-2	MSA-MW-50D-062618	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
240-97762-L-2 MS	MSA-MW-50D-062618	3510C, 8270D	T	260 mL	5 mL	4 SU	2 SU	0.2 mL	0.4 mL
240-97762-M-2 MSD	MSA-MW-50D-062618	3510C, 8270D	T	260 mL	5 mL	4 SU	2 SU	0.2 mL	0.4 mL
240-97762-D-3	MSA-MW-50I-062618	3510C, 8270D	T	260 mL	5 mL	5 SU	2 SU		
240-97762-F-4	MSA-MW-50S-062618	3510C, 8270D	T	260 mL	5 mL	4 SU	2 SU		
240-97762-G-5	MSA-MW-52S-062618	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-97762-D-6	MSA-MW-52I-062618	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-97762-E-7	MSA-MW-52D-062618	3510C, 8270D	T	250 mL	5 mL	5 SU	2 SU		
MB 240-333882/22		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-333882/23		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-97762-N-2	MSA-MW-50D-062618	3510C, 8270D	T	0.4 mL					
240-97762-L-2 MS	MSA-MW-50D-062618	3510C, 8270D	T	0.4 mL					
240-97762-M-2 MSD	MSA-MW-50D-062618	3510C, 8270D	T	0.4 mL					
240-97762-D-3	MSA-MW-50I-062618	3510C, 8270D	T	0.4 mL					
240-97762-F-4	MSA-MW-50S-062618	3510C, 8270D	T	0.4 mL					
240-97762-G-5	MSA-MW-52S-062618	3510C, 8270D	T	0.4 mL					
240-97762-D-6	MSA-MW-52I-062618	3510C, 8270D	T	0.4 mL					
240-97762-E-7	MSA-MW-52D-062618	3510C, 8270D	T	0.4 mL					
MB 240-333882/22		3510C, 8270D		0.4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333882 Batch Start Date: 06/28/18 08:17 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
LCS 240-333882/23		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE STEVEEARLE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3664588
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
DMW-6S-0620118	240-97405-4	86
DMW-3S-062118	240-97513-4	79
MSA-MW-50S-062618	240-97762-4	87
MSA-MW-52S-062618	240-97762-5	96
	MB 240-333746/7-A	84
	MB 240-334451/9-A	78
	LCS 240-333746/8-A	82
	LCS 240-334451/10-A	84

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R062809.D

Lab ID: LCS 240-333746/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1400	70	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R070509.D

Lab ID: LCS 240-334451/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1640	82	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: MB 240-333746/7-A

Matrix: Water Date Extracted: 06/27/2018 11:41

Lab File ID:(1) R062808.D Lab File ID:(2)

Date Analyzed:(1) 06/28/2018 17:35 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-333746/8-A	06/28/2018 18:03	
DMW-3S-062118	240-97513-4	06/28/2018 20:20	
DMW-6S-0620118	240-97405-4	06/28/2018 20:47	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333746/7-A

Matrix: Water | Lab File ID: R062808.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 06/27/2018 11:41

Sample wt/vol: 250(mL) | Date Analyzed: 06/28/2018 17:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334006 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	84		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: MB 240-334451/9-A

Matrix: Water Date Extracted: 07/02/2018 13:49

Lab File ID:(1) R070508.D Lab File ID:(2)

Date Analyzed:(1) 07/05/2018 21:18 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334451/10-A	07/05/2018 21:45	
MSA-MW-50S-062618	240-97762-4	07/05/2018 23:08	
MSA-MW-52S-062618	240-97762-5	07/05/2018 23:35	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334451/9-A

Matrix: Water | Lab File ID: R070508.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 250(mL) | Date Analyzed: 07/05/2018 21:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCV 240-334006/7 Date Analyzed: 06/28/2018 17:08

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R062807.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-334006/7 CCVRT		06/28/2018 17:08	R062807.D	8.42		
MB 240-333746/7-A		06/28/2018 17:35	R062808.D	8.42		
LCS 240-333746/8-A		06/28/2018 18:03	R062809.D	8.42		
240-97513-4	DMW-3S-062118	06/28/2018 20:20	R062814.D	8.42		
240-97405-4	DMW-6S-0620118	06/28/2018 20:47	R062815.D	8.42		
CCV 240-334006/16		06/28/2018 21:15	R062816.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCV 240-334903/7 Date Analyzed: 07/05/2018 20:50

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R070507.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-334903/7 CCVRT		07/05/2018 20:50	R070507.D	8.42		
MB 240-334451/9-A		07/05/2018 21:18	R070508.D	8.42		
LCS 240-334451/10-A		07/05/2018 21:45	R070509.D	8.42		
240-97762-4	MSA-MW-50S-062618	07/05/2018 23:08	R070512.D	8.42		
240-97762-5	MSA-MW-52S-062618	07/05/2018 23:35	R070513.D	8.42		
CCV 240-334903/14		07/06/2018 00:03	R070514.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI

DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA

RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334006/7 Calibration Date: 06/28/2018 17:08

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R062807.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	871839		103000	100000	2.5	20.0
o-Terphenyl (Surr)	Ave	998632	1084777		8690	8000	8.6	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334006/7 Calibration Date: 06/28/2018 17:08

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R062807.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334006/16 Calibration Date: 06/28/2018 21:15

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R062816.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	872824		103000	100000	2.6	20.0
o-Terphenyl (Surr)	Ave	998632	1005454		8050	8000	0.7	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334006/16 Calibration Date: 06/28/2018 21:15

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R062816.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334903/7 Calibration Date: 07/05/2018 20:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	839504		98700	100000	-1.3	20.0
o-Terphenyl (Surr)	Ave	998632	950571		7610	8000	-4.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334903/7 Calibration Date: 07/05/2018 20:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070507.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334903/14 Calibration Date: 07/06/2018 00:03

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070514.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	880515		104000	100000	3.5	20.0
o-Terphenyl (Surr)	Ave	998632	1062893		8510	8000	6.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334903/14 Calibration Date: 07/06/2018 00:03

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070514.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: RTC 240-334006/6 Date Analyzed: 06/28/2018 16:40

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R062806.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: RTC 240-334903/6 Date Analyzed: 07/05/2018 20:22

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R070506.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A2HP14R Start Date: 06/28/2018 16:40

Analysis Batch Number: 334006 End Date: 06/28/2018 21:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-334006/6		06/28/2018 16:40	1	R062806.D	Rxi-5HT 0.53(mm)
CCV 240-334006/7 CCVRT		06/28/2018 17:08	1	R062807.D	Rxi-5HT 0.53(mm)
MB 240-333746/7-A		06/28/2018 17:35	1	R062808.D	Rxi-5HT 0.53(mm)
LCS 240-333746/8-A		06/28/2018 18:03	1	R062809.D	Rxi-5HT 0.53(mm)
ZZZZZ		06/28/2018 18:30	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/28/2018 18:58	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/28/2018 19:25	1		Rxi-5HT 0.53(mm)
ZZZZZ		06/28/2018 19:53	1		Rxi-5HT 0.53(mm)
240-97513-4		06/28/2018 20:20	1	R062814.D	Rxi-5HT 0.53(mm)
240-97405-4		06/28/2018 20:47	1	R062815.D	Rxi-5HT 0.53(mm)
CCV 240-334006/16		06/28/2018 21:15	1	R062816.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/05/2018 20:22

Analysis Batch Number: 334903 End Date: 07/06/2018 00:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-334903/6		07/05/2018 20:22	1	R070506.D	Rxi-5HT 0.53(mm)
CCV 240-334903/7 CCVRT		07/05/2018 20:50	1	R070507.D	Rxi-5HT 0.53(mm)
MB 240-334451/9-A		07/05/2018 21:18	1	R070508.D	Rxi-5HT 0.53(mm)
LCS 240-334451/10-A		07/05/2018 21:45	1	R070509.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/05/2018 22:13	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/05/2018 22:40	1		Rxi-5HT 0.53(mm)
240-97762-4		07/05/2018 23:08	1	R070512.D	Rxi-5HT 0.53(mm)
240-97762-5		07/05/2018 23:35	1	R070513.D	Rxi-5HT 0.53(mm)
CCV 240-334903/14		07/06/2018 00:03	1	R070514.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333746 Batch Start Date: 06/27/18 12:40 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 06/28/18 06:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00089	exOTPSURRW 00030
240-97513-J-4	DMW-3S-062118	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-97405-G-4	DMW-6S-0620118	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-333746/7		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-333746/8		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334451 Batch Start Date: 07/02/18 15:00 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 07/03/18 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00089	exOTPSURRW 00030
240-97762-I-4	MSA-MW-50S-062618	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
240-97762-H-5	MSA-MW-52S-062618	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-334451/9		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-334451/10		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
DMW-6S-0620118	240-97405-4	92
DMW-3S-062118	240-97513-4	88
MSA-MW-50S-062618	240-97762-4	80
MSA-MW-52S-062618	240-97762-5	88
	MB 240-333416/5	74
	MB 240-334079/13	77
	LCS 240-333416/6	86
	LCS 240-334079/14	86
DMW-3S-062118 MS	240-97513-4 MS	93
DMW-3S-062118 MSD	240-97513-4 MSD	96

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062606.D

Lab ID: LCS 240-333416/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	874	109	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062914.D

Lab ID: LCS 240-334079/14 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	919	115	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062611.D

Lab ID: 240-97513-4 MS Client ID: DMW-3S-062118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	660	1490	104	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062612.D

Lab ID: 240-97513-4 MSD Client ID: DMW-3S-062118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	1550	111	4	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: MB 240-333416/5

Matrix: Water Date Extracted: 06/26/2018 06:47

Lab File ID:(1) A0062605.D Lab File ID:(2)

Date Analyzed:(1) 06/26/2018 06:47 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-333416/6	06/26/2018 07:24	
DMW-6S-0620118	240-97405-4	06/26/2018 09:15	
DMW-3S-062118	240-97513-4	06/26/2018 09:53	
DMW-3S-062118 MS	240-97513-4 MS	06/26/2018 10:31	
DMW-3S-062118 MSD	240-97513-4 MSD	06/26/2018 11:10	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-333416/5

Matrix: Water | Lab File ID: A0062605.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/26/2018 06:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 333416 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	74		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: MB 240-334079/13

Matrix: Water Date Extracted: 06/29/2018 19:21

Lab File ID:(1) A0062913.D Lab File ID:(2)

Date Analyzed:(1) 06/29/2018 19:21 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334079/14	06/29/2018 20:02	
MSA-MW-50S-062618	240-97762-4	06/29/2018 20:41	
MSA-MW-52S-062618	240-97762-5	06/29/2018 21:22	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334079/13

Matrix: Water | Lab File ID: A0062913.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 19:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVRT 240-333416/4 Date Analyzed: 06/26/2018 06:11

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0062604.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-333416/4		06/26/2018 06:11	A0062604.D	10.40		
MB 240-333416/5		06/26/2018 06:47	A0062605.D	10.39		
LCS 240-333416/6		06/26/2018 07:24	A0062606.D	10.39		
CCV 240-333416/8		06/26/2018 08:37	A0062608.D	10.40		
240-97405-4	DMW-6S-0620118	06/26/2018 09:15	A0062609.D	10.39		
240-97513-4	DMW-3S-062118	06/26/2018 09:53	A0062610.D	10.40		
240-97513-4 MS	DMW-3S-062118 MS	06/26/2018 10:31	A0062611.D	10.40		
240-97513-4 MSD	DMW-3S-062118 MSD	06/26/2018 11:10	A0062612.D	10.40		
CCV 240-333416/17		06/26/2018 14:26	A0062617.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Sample No.: CCVRT 240-334079/4 Date Analyzed: 06/29/2018 13:18

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0062904.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-334079/4		06/29/2018 13:18	A0062904.D	10.40		
CCV 240-334079/12		06/29/2018 18:42	A0062912.D	10.40		
MB 240-334079/13		06/29/2018 19:21	A0062913.D	10.40		
LCS 240-334079/14		06/29/2018 20:02	A0062914.D	10.40		
240-97762-4	MSA-MW-50S-062618	06/29/2018 20:41	A0062915.D	10.40		
240-97762-5	MSA-MW-52S-062618	06/29/2018 21:22	A0062916.D	10.40		
CCV 240-334079/21		06/30/2018 00:37	A0062921.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97405-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVRT 240-333416/4 Calibration Date: 06/26/2018 06:11

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062604.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		221540		902	800	12.8	20.0
C6-C12	Lin1		247400		879	800	9.9	20.0
Trifluorotoluene (Surr)	Lin1		211654		35.9	40.0	-10.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVRT 240-333416/4 Calibration Date: 06/26/2018 06:11

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062604.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.96	17.04
C6-C12	13.24	6.96	19.52
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333416/8 Calibration Date: 06/26/2018 08:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062608.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		216203		880	800	10.0	20.0
C6-C12	Lin1		241865		857	800	7.2	20.0
Trifluorotoluene (Surr)	Lin1		193539		32.7	40.0	-18.2	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333416/8 Calibration Date: 06/26/2018 08:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062608.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.96	17.04
C6-C12	13.24	6.96	19.52
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333416/17 Calibration Date: 06/26/2018 14:26

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062617.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		219780		895	800	11.9	20.0
C6-C12	Lin1		250140		890	800	11.2	20.0
Trifluorotoluene (Surr)	Lin1		218327		37.1	40.0	-7.3	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-333416/17 Calibration Date: 06/26/2018 14:26

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062617.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.96	17.04
C6-C12	13.24	6.96	19.52
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVRT 240-334079/4 Calibration Date: 06/29/2018 13:18

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062904.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		210536		856	800	7.0	20.0
C6-C12	Lin1		238767		845	800	5.6	20.0
Trifluorotoluene (Surr)	Lin1		194101		32.8	40.0	-18.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVRT 240-334079/4 Calibration Date: 06/29/2018 13:18

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062904.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334079/12 Calibration Date: 06/29/2018 18:42

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062912.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		212427		864	800	8.0	20.0
C6-C12	Lin1		239332		847	800	5.9	20.0
Trifluorotoluene (Surr)	Lin1		207957		35.2	40.0	-11.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334079/12 Calibration Date: 06/29/2018 18:42

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062912.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334079/21 Calibration Date: 06/30/2018 00:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062921.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		216787		882	800	10.3	20.0
C6-C12	Lin1		246195		874	800	9.3	20.0
Trifluorotoluene (Surr)	Lin1		203446		34.4	40.0	-13.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 240-334079/21 Calibration Date: 06/30/2018 00:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062921.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: AFID Start Date: 04/18/2018 08:10

Analysis Batch Number: 322909 End Date: 04/18/2018 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-322909/4 IC		04/18/2018 08:10	1	A0041804.D	RTX-VRX 0.45(mm)
STD2 240-322909/5 IC		04/18/2018 08:47	1	A0041805.D	RTX-VRX 0.45(mm)
STD3 240-322909/6 IC		04/18/2018 09:24	1	A0041806.D	RTX-VRX 0.45(mm)
STD4 240-322909/7 ICRT		04/18/2018 10:02	1	A0041807.D	RTX-VRX 0.45(mm)
STD5 240-322909/8 IC		04/18/2018 10:39	1	A0041808.D	RTX-VRX 0.45(mm)
STD6 240-322909/9 IC		04/18/2018 11:17	1	A0041809.D	RTX-VRX 0.45(mm)
STD7 240-322909/10 IC		04/18/2018 11:54	1	A0041810.D	RTX-VRX 0.45(mm)
STD8 240-322909/11 IC		04/18/2018 12:32	1	A0041811.D	RTX-VRX 0.45(mm)
ICV 240-322909/12		04/18/2018 13:09	1	A0041812.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: AFID Start Date: 06/26/2018 06:11

Analysis Batch Number: 333416 End Date: 06/26/2018 14:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-333416/4		06/26/2018 06:11	1	A0062604.D	RTX-VRX 0.45(mm)
MB 240-333416/5		06/26/2018 06:47	1	A0062605.D	RTX-VRX 0.45(mm)
LCS 240-333416/6		06/26/2018 07:24	1	A0062606.D	RTX-VRX 0.45(mm)
CCV 240-333416/8		06/26/2018 08:37	1	A0062608.D	RTX-VRX 0.45(mm)
240-97405-4		06/26/2018 09:15	1	A0062609.D	RTX-VRX 0.45(mm)
240-97513-4		06/26/2018 09:53	1	A0062610.D	RTX-VRX 0.45(mm)
240-97513-4 MS		06/26/2018 10:31	1	A0062611.D	RTX-VRX 0.45(mm)
240-97513-4 MSD		06/26/2018 11:10	1	A0062612.D	RTX-VRX 0.45(mm)
CCV 240-333416/17		06/26/2018 14:26	1	A0062617.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: AFID Start Date: 06/29/2018 13:18

Analysis Batch Number: 334079 End Date: 06/30/2018 00:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-334079/4		06/29/2018 13:18	1	A0062904.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 13:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 14:38	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 15:18	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 15:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 16:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 17:21	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 18:02	1		RTX-VRX 0.45(mm)
CCV 240-334079/12		06/29/2018 18:42	1	A0062912.D	RTX-VRX 0.45(mm)
MB 240-334079/13		06/29/2018 19:21	1	A0062913.D	RTX-VRX 0.45(mm)
LCS 240-334079/14		06/29/2018 20:02	1	A0062914.D	RTX-VRX 0.45(mm)
240-97762-4		06/29/2018 20:41	1	A0062915.D	RTX-VRX 0.45(mm)
240-97762-5		06/29/2018 21:22	1	A0062916.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 22:02	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 22:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 23:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 23:59	1		RTX-VRX 0.45(mm)
CCV 240-334079/21		06/30/2018 00:37	1	A0062921.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 322909 Batch Start Date: 04/18/18 08:10 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	
STD1 240-322909/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-322909/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-322909/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-322909/7 ICRT		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-322909/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-322909/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-322909/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		
STD8 240-322909/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		
ICV 240-322909/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 333416 Batch Start Date: 06/26/18 06:11 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-333416/4		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-333416/5		8015C		5 mL	5 mL				1 uL
LCS 240-333416/6		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-333416/8		8015C		5 mL	5 mL		40 uL		1 uL
240-97405-A-4	DMW-6S-0620118	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-97513-A-4	DMW-3S-062118	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-97513-A-4 MS	DMW-3S-062118	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-97513-A-4 MSD	DMW-3S-062118	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
CCV 240-333416/17		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Batch Number: 334079 Batch Start Date: 06/29/18 13:18 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-334079/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-334079/12		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-334079/13		8015C		5 mL	5 mL				1 uL
LCS 240-334079/14		8015C		5 mL	5 mL			40 uL	1 uL
240-97762-A-4	MSA-MW-50S-062618	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-97762-A-5	MSA-MW-52S-062618	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-334079/21		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-333143/7 06/23/2018 15:21				CCV 240-333143/12 06/23/2018 15:43				CCV 240-333143/24 06/23/2018 16:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.6		40.0	102	50.9		50.0	102	51.4		50.0	103
Arsenic	41.2		40.0	103	48.2		50.0	96	47.0		50.0	94
Barium	40.2		40.0	100	50.0		50.0	100	50.2		50.0	100
Beryllium	38.8		40.0	97	50.1		50.0	100	50.4		50.0	101
Cadmium	41.1		40.0	103	49.5		50.0	99	50.0		50.0	100
Chromium	40.6		40.0	101	51.0		50.0	102	50.9		50.0	102
Cobalt	40.5		40.0	101	50.5		50.0	101	50.7		50.0	101
Copper	42.0		40.0	105	51.2		50.0	102	52.0		50.0	104
Dissolved Iron	10100		10000	101	12600		12500	101	12600		12500	101
Dissolved Lead	41.9		40.0	105	50.1		50.0	100	50.0		50.0	100
Dissolved Manganese	198		200	99	248		250	99	248		250	99
Dissolved Molybdenum	40.9		40.0	102	53.6		50.0	107	50.9		50.0	102
Dissolved Nickel	40.2		40.0	101	46.8		50.0	94	47.7		50.0	95
Dissolved Selenium	40.2		40.0	100	51.1		50.0	102	50.4		50.0	101
Dissolved Silver	40.5		40.0	101	48.9		50.0	98	49.6		50.0	99
Dissolved Thallium	41.7		40.0	104	50.9		50.0	102	51.1		50.0	102
Dissolved Vanadium	39.8		40.0	100	49.6		50.0	99	49.8		50.0	100
Zinc	41.4		40.0	104	50.7		50.0	101	50.7		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-333143/36 06/23/2018 17:34											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.2		50.0	100								
Arsenic	46.7		50.0	93								
Barium	48.7		50.0	97								
Beryllium	48.5		50.0	97								
Cadmium	49.3		50.0	99								
Chromium	51.4		50.0	103								
Cobalt	51.1		50.0	102								
Copper	52.1		50.0	104								
Dissolved Iron	12800		12500	103								
Dissolved Lead	49.9		50.0	100								
Dissolved Manganese	249		250	100								
Dissolved Molybdenum	50.2		50.0	100								
Dissolved Nickel	46.7		50.0	93								
Dissolved Selenium	50.9		50.0	102								
Dissolved Silver	48.6		50.0	97								
Dissolved Thallium	51.2		50.0	102								
Dissolved Vanadium	49.8		50.0	100								
Zinc	51.9		50.0	104								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSCRI6020AW_00067 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-333143/9 06/23/2018 15:30				CCVL 240-333143/46 06/23/2018 18:19							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.93	J	2.00	97	1.95	J	2.00	98				
Arsenic	4.68	J	5.00	94	4.48	J	5.00	90				
Barium	4.78	J	5.00	96	4.80	J	5.00	96				
Beryllium	0.975	J	1.00	98	0.893	J	1.00	89				
Cadmium	0.997	J	1.00	100	0.997	J	1.00	100				
Chromium	1.99	J	2.00	99	1.94	J	2.00	97				
Cobalt	1.01		1.00	101	1.02		1.00	102				
Copper	2.03		2.00	102	2.10		2.00	105				
Dissolved Iron	109		100	109	109		100	109				
Dissolved Lead	0.973	J	1.00	97	0.893	J	1.00	89				
Dissolved Manganese	4.77	J	5.00	95	4.76	J	5.00	95				
Dissolved Molybdenum	5.05		5.00	101	4.88	J	5.00	98				
Dissolved Nickel	1.77	J	2.00	89	1.5	U	2.00	74				
Dissolved Selenium	3.85	J	5.00	77	4.54	J	5.00	91				
Dissolved Silver	0.996	J	1.00	100	0.983	J	1.00	98				
Dissolved Thallium	1.03		1.00	103	1.03		1.00	103				
Dissolved Vanadium	4.88	J	5.00	98	4.86	J	5.00	97				
Zinc	19.6	J	20.0	98	20.2		20.0	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-333675/7 06/26/2018 15:39				CCV 240-333675/53 06/26/2018 19:11				CCV 240-333675/65 06/26/2018 20:04			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.7		40.0	104	48.7		50.0	97	49.8		50.0	100
Arsenic	41.5		40.0	104	48.8		50.0	98	48.2		50.0	96
Barium	41.6		40.0	104	49.0		50.0	98	51.5		50.0	103
Beryllium	38.8		40.0	97	56.2		50.0	112	54.9		50.0	110
Cadmium	40.9		40.0	102	49.2		50.0	98	49.5		50.0	99
Chromium	40.2		40.0	101	50.2		50.0	100	49.9		50.0	100
Cobalt	40.7		40.0	102	51.3		50.0	103	50.8		50.0	102
Copper	41.8		40.0	104	51.6		50.0	103	51.1		50.0	102
Dissolved Iron	10000		10000	100	12900		12500	103	12700		12500	102
Dissolved Lead	41.4		40.0	103	52.9		50.0	106	50.3		50.0	101
Dissolved Manganese	197		200	99	253		250	101	248		250	99
Dissolved Molybdenum	40.2		40.0	101	50.2		50.0	100	49.7		50.0	99
Dissolved Nickel	41.1		40.0	103	51.5		50.0	103	50.2		50.0	100
Dissolved Selenium	40.9		40.0	102	49.4		50.0	99	49.5		50.0	99
Dissolved Silver	40.2		40.0	101	50.4		50.0	101	50.3		50.0	101
Dissolved Thallium	40.8		40.0	102	53.2		50.0	106	50.3		50.0	101
Dissolved Vanadium	39.9		40.0	100	50.0		50.0	100	49.8		50.0	100
Zinc	41.2		40.0	103	53.1		50.0	106	51.8		50.0	104

No samples affected

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-333675/77 06/26/2018 20:58				CCV 240-333675/82 06/26/2018 21:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.0		50.0	98	50.5		50.0	101				
Arsenic	49.0		50.0	98	49.6		50.0	99				
Barium	50.9		50.0	102	51.8		50.0	104				
Beryllium	51.4		50.0	103	50.9		50.0	102				
Cadmium	49.8		50.0	100	49.7		50.0	99				
Chromium	49.7		50.0	99	49.7		50.0	99				
Cobalt	50.1		50.0	100	50.5		50.0	101				
Copper	50.6		50.0	101	50.3		50.0	101				
Dissolved Iron	12700		12500	102	12600		12500	101				
Dissolved Lead	48.5		50.0	97	47.9		50.0	96				
Dissolved Manganese	253		250	101	246		250	98				
Dissolved Molybdenum	50.0		50.0	100	49.9		50.0	100				
Dissolved Nickel	50.1		50.0	100	50.7		50.0	101				
Dissolved Selenium	50.3		50.0	101	49.9		50.0	100				
Dissolved Silver	49.8		50.0	100	50.3		50.0	101				
Dissolved Thallium	48.7		50.0	97	48.4		50.0	97				
Dissolved Vanadium	48.7		50.0	97	48.9		50.0	98				
Zinc	50.9		50.0	102	50.1		50.0	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00067

Analyte	ICVL 240-333675/9 06/26/2018 15:48				CCVL 240-333675/84 06/26/2018 21:29							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.10		2.00	105	2.03		2.00	101				
Arsenic	5.05		5.00	101	5.36		5.00	107				
Barium	5.18		5.00	104	5.11		5.00	102				
Beryllium	0.856	J	1.00	86	0.924	J	1.00	92				
Cadmium	1.03		1.00	103	1.02		1.00	102				
Chromium	2.06		2.00	103	2.01		2.00	101				
Cobalt	1.06		1.00	106	1.08		1.00	108				
Copper	2.10		2.00	105	2.06		2.00	103				
Dissolved Iron	114		100	114	116		100	116				
Dissolved Lead	1.08		1.00	108	1.05		1.00	105				
Dissolved Manganese	4.72	J	5.00	94	4.68	J	5.00	94				
Dissolved Molybdenum	5.09		5.00	102	5.04		5.00	101				
Dissolved Nickel	2.16		2.00	108	2.01		2.00	100				
Dissolved Selenium	5.33		5.00	107	5.84		5.00	117				
Dissolved Silver	1.01		1.00	101	1.03		1.00	103				
Dissolved Thallium	1.06		1.00	106	1.01		1.00	101				
Dissolved Vanadium	5.07		5.00	101	4.96	J	5.00	99				
Zinc	20.2		20.0	101	20.5		20.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-334257/7 06/29/2018 15:53				CCV 240-334257/12 06/29/2018 16:16				CCV 240-334257/24 06/29/2018 17:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.3		40.0	101	50.4		50.0	101	49.7		50.0	99
Arsenic	41.7		40.0	104	51.0		50.0	102	50.2		50.0	100
Barium	40.7		40.0	102	50.2		50.0	100	48.8		50.0	98
Beryllium	38.1		40.0	95	47.8		50.0	96	47.4		50.0	95
Cadmium	41.0		40.0	102	50.3		50.0	101	49.3		50.0	99
Chromium	41.0		40.0	103	50.3		50.0	101	49.5		50.0	99
Cobalt	41.1		40.0	103	50.6		50.0	101	49.7		50.0	99
Copper	42.2		40.0	105	51.4		50.0	103	50.3		50.0	101
Dissolved Iron	10100		10000	101	12500		12500	100	12200		12500	98
Dissolved Lead	41.7		40.0	104	50.5		50.0	101	49.6		50.0	99
Dissolved Manganese	204		200	102	252		250	101	246		250	98
Dissolved Molybdenum	40.4		40.0	101	54.7		50.0	109	50.2		50.0	100
Dissolved Nickel	39.6		40.0	99	50.1		50.0	100	48.4		50.0	97
Dissolved Selenium	39.4		40.0	99	50.7		50.0	101	48.0		50.0	96
Dissolved Silver	39.6		40.0	99	50.1		50.0	100	48.1		50.0	96
Dissolved Thallium	41.0		40.0	103	50.2		50.0	100	49.4		50.0	99
Dissolved Vanadium	40.4		40.0	101	49.9		50.0	100	49.0		50.0	98
Zinc	42.1		40.0	105	52.0		50.0	104	50.6		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-334257/36 06/29/2018 18:11				CCV 240-334257/39 06/29/2018 18:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.3		50.0	101	50.3		50.0	101				
Arsenic	51.6		50.0	103	51.8		50.0	104				
Barium	50.1		50.0	100	50.4		50.0	101				
Beryllium	47.4		50.0	95	47.9		50.0	96				
Cadmium	50.7		50.0	101	50.6		50.0	101				
Chromium	50.7		50.0	101	51.0		50.0	102				
Cobalt	51.0		50.0	102	51.7		50.0	103				
Copper	51.9		50.0	104	51.8		50.0	104				
Dissolved Iron	12600		12500	101	12600		12500	101				
Dissolved Lead	50.1		50.0	100	50.3		50.0	101				
Dissolved Manganese	252		250	101	255		250	102				
Dissolved Molybdenum	52.2		50.0	104	51.4		50.0	103				
Dissolved Nickel	50.3		50.0	101	49.5		50.0	99				
Dissolved Selenium	48.6		50.0	97	48.3		50.0	97				
Dissolved Silver	50.0		50.0	100	49.1		50.0	98				
Dissolved Thallium	49.5		50.0	99	50.3		50.0	101				
Dissolved Vanadium	51.1		50.0	102	51.1		50.0	102				
Zinc	52.5		50.0	105	51.6		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-334257/9 06/29/2018 16:02				CCVL 240-334257/41 06/29/2018 18:34							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.00		2.00	100	2.06		2.00	103				
Arsenic	5.40		5.00	108	5.31		5.00	106				
Barium	5.00		5.00	100	5.15		5.00	103				
Beryllium	0.850	J	1.00	85	0.853	J	1.00	85				
Cadmium	1.03		1.00	103	1.14		1.00	114				
Chromium	2.11		2.00	105	2.13		2.00	107				
Cobalt	1.10		1.00	110	1.08		1.00	108				
Copper	2.17		2.00	108	2.20		2.00	110				
Dissolved Iron	114		100	114	112		100	112				
Dissolved Lead	1.11		1.00	111	1.09		1.00	109				
Dissolved Manganese	5.41		5.00	108	5.50		5.00	110				
Dissolved Molybdenum	5.09		5.00	102	5.14		5.00	103				
Dissolved Nickel	2.10		2.00	105	2.08		2.00	104				
Dissolved Selenium	4.79	J	5.00	96	4.81	J	5.00	96				
Dissolved Silver	1.00		1.00	100	0.999	J	1.00	100				
Dissolved Thallium	1.09		1.00	109	1.04		1.00	104				
Dissolved Vanadium	5.10		5.00	102	5.16		5.00	103				
Zinc	21.5		20.0	107	21.8		20.0	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00357 Concentration Units: ug/L

CCV Source: MTHGCALW_01856

Analyte	ICV 240-332977/7-A 06/23/2018 10:01				CCV 240-332977/10-A 06/23/2018 15:11				CCV 240-332977/10-A 06/23/2018 15:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.89		5.00	98	5.87		5.00	117	5.70		5.00	114

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00357 Concentration Units: ug/L

CCV Source: MTHGCALW_01856

Analyte	CCV 240-332977/10-A 06/23/2018 15:51											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.95		5.00	119								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00358 Concentration Units: ug/L

CCV Source: MTHGCALW_01858

Analyte	ICV 240-333523/7-A 06/26/2018 12:46				CCV 240-333523/10-A 06/26/2018 13:54				CCV 240-333523/10-A 06/26/2018 15:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.06		5.00	101	5.24		5.00	105	5.30		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00358 Concentration Units: ug/L

CCV Source: MTHGCALW_01858

Analyte	CCV 240-333523/10-A 06/26/2018 15:42				CCV 240-333523/10-A 06/26/2018 16:07							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.28		5.00	106	5.32		5.00	106				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00359 Concentration Units: ug/L

CCV Source: MTHGCALW_01860

Analyte	ICV 240-333895/7-A 06/29/2018 08:54				CCV 240-333895/10-A 06/29/2018 16:23				CCV 240-333895/10-A 06/29/2018 17:08			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.97		5.00	99	4.99		5.00	100	4.84		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICV Source: MTHgICV_00001_00359 Concentration Units: ug/L

CCV Source: MTHGCALW_01860

Analyte	CCV 240-333895/10-A 06/29/2018 17:33				CCV 240-333895/10-A 06/29/2018 17:56							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.90		5.00	98	4.82		5.00	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-332977/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01856

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.226		113	50-150
Mercury	0.200	0.226		113	50-150

Lab Sample ID: CRA 240-333523/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01858

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.240		120	50-150
Mercury	0.200	0.240		120	50-150

Lab Sample ID: CRA 240-333895/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01860

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.222		111	50-150
Mercury	0.200	0.222		111	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-333143/8 06/23/2018 15:25		CCB 240-333143/13 06/23/2018 15:48		CCB 240-333143/25 06/23/2018 16:44		CCB 240-333143/37 06/23/2018 17:38	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-333675/8 06/26/2018 15:43		CCB 240-333675/54 06/26/2018 19:15		CCB 240-333675/66 06/26/2018 20:09		CCB 240-333675/78 06/26/2018 21:02	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-333675/83 06/26/2018 21:25							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334257/8 06/29/2018 15:58		CCB 240-334257/13 06/29/2018 16:20		CCB 240-334257/25 06/29/2018 17:22		CCB 240-334257/37 06/29/2018 18:16	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.454	J	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-334257/40 06/29/2018 18:29							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-332977/8-A 06/23/2018 10:03		CCB 240-332977/11-A 06/23/2018 15:13		CCB 240-332977/11-A 06/23/2018 15:38		CCB 240-332977/11-A 06/23/2018 15:53	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-333523/8-A 06/26/2018 12:48		CCB 240-333523/11-A 06/26/2018 13:56		CCB 240-333523/11-A 06/26/2018 15:21		CCB 240-333523/11-A 06/26/2018 15:44	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-333523/11-A 06/26/2018 16:09							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-333895/8-A 06/29/2018 08:56		CCB 240-333895/11-A 06/29/2018 16:25		CCB 240-333895/11-A 06/29/2018 17:10		CCB 240-333895/11-A 06/29/2018 17:34	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-333895/11-A 06/29/2018 17:58							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-332909/1-A

Instrument Code: I10 Batch No.: 333143

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-333330/1-A

Instrument Code: I10 Batch No.: 333675

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U	^	6020A
7440-41-7	Dissolved Beryllium	0.31	U	^	6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-333894/1-A

Instrument Code: I10 Batch No.: 334257

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-332915/1-A

Instrument Code: H3 Batch No.: 333317

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-333331/1-A

Instrument Code: H3 Batch No.: 333667

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-333907/1-A

Instrument Code: H3 Batch No.: 334166

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSA 240-333143/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**-0.0120**	
Arsenic		**0.0040**	
Barium		**0.0180**	
Beryllium		**-0.0090**	
Cadmium		**0.275**	
Chromium		**0.105**	
Cobalt		**0.0000**	
Copper		**0.404**	
Dissolved Iron	**50000**	**49061**	**98**
Dissolved Lead		**-0.0340**	
Dissolved Manganese		**-0.0680**	
Dissolved Molybdenum	**1000**	**1016**	**102**
Dissolved Nickel		**-0.0020**	
Dissolved Selenium		**-0.341**	
Dissolved Silver		**0.0170**	
Dissolved Thallium		**0.0060**	
Dissolved Vanadium		**-0.0170**	
Zinc		**-0.144**	
Aluminum	*50000*	*47329*	*95*
Boron		*-1.62*	
Calcium	*50000*	*49073*	*98*
Lithium		*-0.141*	
Magnesium	*50000*	*48552*	*97*
Potassium	*50000*	*48601*	*97*
Sodium	*50000*	*48678*	*97*
Strontium		*0.442*	
Tin		*-0.119*	
Titanium	*1000*	*983*	*98*
Tungsten		*0.0260*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSAB 240-333143/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**101**	**101**
Arsenic	**100**	**99.5**	**99**
Barium	**100**	**100**	**100**
Beryllium	**100**	**99.2**	**99**
Cadmium	**100**	**97.4**	**97**
Chromium	**100**	**98.6**	**99**
Cobalt	**100**	**99.6**	**100**
Copper	**100**	**99.9**	**100**
Dissolved Iron	**50000**	**49653**	**99**
Dissolved Lead	**100**	**99.2**	**99**
Dissolved Manganese	**100**	**98.3**	**98**
Dissolved Molybdenum	**1100**	**1106**	**101**
Dissolved Nickel	**100**	**97.9**	**98**
Dissolved Selenium	**100**	**101**	**101**
Dissolved Silver	**100**	**98.4**	**98**
Dissolved Thallium	**100**	**98.5**	**98**
Dissolved Vanadium	**100**	**97.3**	**97**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*47580*	*95*
Boron	*100*	*99.0*	*99*
Calcium	*50000*	*49616*	*99*
Lithium	*100*	*96.9*	*97*
Magnesium	*50000*	*49121*	*98*
Potassium	*50000*	*49052*	*98*
Sodium	*50000*	*49028*	*98*
Strontium	*100*	*98.1*	*98*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1093*	*99*
Tungsten	*100*	*99.0*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSA 240-333675/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0430**	
Arsenic		**0.111**	
Barium		**0.0320**	
Beryllium		**-0.0220**	
Cadmium		**0.398**	
Chromium		**0.135**	
Cobalt		**0.0050**	
Copper		**0.339**	
Dissolved Iron	**50000**	**48024**	**96**
Dissolved Lead		**0.0670**	
Dissolved Manganese		**-0.313**	
Dissolved Molybdenum	**1000**	**1012**	**101**
Dissolved Nickel		**0.138**	
Dissolved Selenium		**0.729**	
Dissolved Silver		**0.0090**	
Dissolved Thallium		**0.0020**	
Dissolved Vanadium		**-0.0940**	
Zinc		**-0.345**	
Aluminum	*50000*	*48684*	*97*
Boron		*-7.93*	
Calcium	*50000*	*49079*	*98*
Lithium		*-0.0770*	
Magnesium	*50000*	*49881*	*100*
Potassium	*50000*	*49732*	*99*
Sodium	*50000*	*49707*	*99*
Strontium		*0.431*	
Tin		*-0.0430*	
Titanium	*1000*	*983*	*98*
Tungsten		*0.161*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSAB 240-333675/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.4**	**98**
Arsenic	**100**	**101**	**101**
Barium	**100**	**98.8**	**99**
Beryllium	**100**	**96.5**	**96**
Cadmium	**100**	**96.3**	**96**
Chromium	**100**	**95.4**	**95**
Cobalt	**100**	**96.4**	**96**
Copper	**100**	**96.5**	**97**
Dissolved Iron	**50000**	**48551**	**97**
Dissolved Lead	**100**	**99.8**	**100**
Dissolved Manganese	**100**	**95.4**	**95**
Dissolved Molybdenum	**1100**	**1117**	**102**
Dissolved Nickel	**100**	**96.2**	**96**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**98.0**	**98**
Dissolved Thallium	**100**	**97.6**	**98**
Dissolved Vanadium	**100**	**95.6**	**96**
Zinc	**100**	**98.3**	**98**
Aluminum	*50000*	*47615*	*95*
Boron	*100*	*94.5*	*94*
Calcium	*50000*	*48105*	*96*
Lithium	*100*	*96.5*	*97*
Magnesium	*50000*	*48510*	*97*
Potassium	*50000*	*48515*	*97*
Sodium	*50000*	*48452*	*97*
Strontium	*100*	*100*	*100*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1076*	*98*
Tungsten	*100*	*98.9*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSA 240-334257/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Antimony		**0.0490**	
Arsenic		**-0.171**	
Barium		**0.0630**	
Beryllium		**-0.0060**	
Cadmium		**0.133**	
Chromium		**0.181**	
Cobalt		**0.0060**	
Copper		**0.373**	
Dissolved Iron	**50000**	**49041**	**98**
Dissolved Lead		**0.0760**	
Dissolved Manganese		**0.176**	
Dissolved Molybdenum	**1000**	**1063**	**106**
Dissolved Nickel		**0.118**	
Dissolved Selenium		**0.532**	
Dissolved Silver		**0.0150**	
Dissolved Thallium		**0.0030**	
Dissolved Vanadium		**0.0220**	
Zinc		**0.684**	
Aluminum	*50000*	*50189*	*100*
Boron		*0.307*	
Calcium	*50000*	*49278*	*99*
Lithium		*-0.169*	
Magnesium	*50000*	*49715*	*99*
Potassium	*50000*	*49309*	*99*
Sodium	*50000*	*49214*	*98*
Strontium		*0.479*	
Tin		*0.171*	
Titanium	*1000*	*990*	*99*
Tungsten		*0.174*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICSAB 240-334257/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.9**	**100**
Arsenic	**100**	**102**	**102**
Barium	**100**	**101**	**101**
Beryllium	**100**	**106**	**106**
Cadmium	**100**	**99.1**	**99**
Chromium	**100**	**98.1**	**98**
Cobalt	**100**	**99.4**	**99**
Copper	**100**	**101**	**101**
Dissolved Iron	**50000**	**49572**	**99**
Dissolved Lead	**100**	**102**	**102**
Dissolved Manganese	**100**	**101**	**101**
Dissolved Molybdenum	**1100**	**1155**	**105**
Dissolved Nickel	**100**	**102**	**102**
Dissolved Selenium	**100**	**104**	**104**
Dissolved Silver	**100**	**102**	**102**
Dissolved Thallium	**100**	**98.9**	**99**
Dissolved Vanadium	**100**	**98.1**	**98**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*49880*	*100*
Boron	*100*	*103*	*103*
Calcium	*50000*	*49442*	*99*
Lithium	*100*	*103*	*103*
Magnesium	*50000*	*49633*	*99*
Potassium	*50000*	*49303*	*99*
Sodium	*50000*	*49122*	*98*
Strontium	*100*	*103*	*103*
Tin	*100*	*99.7*	*100*
Titanium	*1100*	*1092*	*99*
Tungsten	*100*	*97.6*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-50D-062618 MS
Lab ID: 240-97762-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-97405-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.992		0.13	U	1.00	99	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-50D-062618 MS | Lab ID: 240-97762-2 MS

Lab Name: TestAmerica Canton | Job No.: 240-97405-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	96.4		0.57	U	100	96	75-125		6020A
Arsenic	974		0.75	U	1000	97	75-125		6020A
Barium	966		19		1000	95	75-125		6020A
Beryllium	978		2.4		1000	98	75-125		6020A
Cadmium	956		2.5		1000	95	75-125		6020A
Cobalt	1120		100		1000	102	75-125		6020A
Chromium	1010		3.3		1000	100	75-125		6020A
Copper	1040		42		1000	99	75-125		6020A
Iron	27400		17000		10000	99	75-125		6020A
Manganese	3180		2100		1000	105	75-125		6020A
Molybdenum	103		1.1	U	100	103	75-125		6020A
Nickel	1020		58		1000	96	75-125		6020A
Lead	978		0.59	J	1000	98	75-125		6020A
Selenium	968		7.3		1000	96	75-125		6020A
Thallium	232		0.20	U	250	93	75-125		6020A
Vanadium	1010		2.6	J	1000	101	75-125		6020A
Zinc	1110		150		1000	96	75-125		6020A
Silver	98.3		0.053	U	100	98	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-50D-062618 MS
Lab ID: 240-97762-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-97405-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Antimony	103		0.57	U	100	103	75-125		6020A
Dissolved Arsenic	1040		1.3	J	1000	104	75-125		6020A
Dissolved Barium	1060		21		1000	104	75-125		6020A
Dissolved Beryllium	1040		2.8		1000	104	75-125		6020A
Dissolved Cadmium	1030		2.6		1000	103	75-125		6020A
Dissolved Cobalt	1200		100		1000	110	75-125		6020A
Dissolved Chromium	1070		3.5		1000	107	75-125		6020A
Dissolved Copper	1100		32		1000	106	75-125		6020A
Dissolved Iron	29400		18000		10000	110	75-125		6020A
Dissolved Manganese	3400		2200		1000	116	75-125		6020A
Dissolved Molybdenum	108		1.1	U	100	108	75-125		6020A
Dissolved Nickel	1060		58		1000	100	75-125		6020A
Dissolved Lead	1020		0.60	J	1000	102	75-125		6020A
Dissolved Selenium	1010		7.3		1000	100	75-125		6020A
Dissolved Zinc	1170		150		1000	102	75-125		6020A
Dissolved Thallium	240		0.22	J	250	96	75-125		6020A
Dissolved Vanadium	1080		2.5	J	1000	108	75-125		6020A
Dissolved Silver	103		0.053	U	100	103	75-125		6020A
Mercury, Dissolved	0.981		0.13	U	1.00	98	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-50D-062618 MSD Lab ID: 240-97762-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.922		1.00	92	80-120	7	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-50D-062618 MSD Lab ID: 240-97762-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	103		100	103	75-125	6	20		6020A
Arsenic	1030		1000	103	75-125	6	20		6020A
Barium	1040		1000	102	75-125	7	20		6020A
Beryllium	1040		1000	104	75-125	6	20		6020A
Cadmium	1020		1000	102	75-125	7	20		6020A
Cobalt	1190		1000	109	75-125	6	20		6020A
Chromium	1090		1000	108	75-125	8	20		6020A
Copper	1100		1000	106	75-125	6	20		6020A
Iron	29400		10000	120	75-125	7	20		6020A
Manganese	3400		1000	127	75-125	7	20	F1	6020A
Molybdenum	109		100	109	75-125	6	20		6020A
Nickel	1080		1000	102	75-125	5	20		6020A
Lead	1030		1000	103	75-125	5	20		6020A
Selenium	1020		1000	101	75-125	5	20		6020A
Thallium	243		250	97	75-125	5	20		6020A
Vanadium	1100		1000	109	75-125	8	20		6020A
Zinc	1180		1000	103	75-125	6	20		6020A
Silver	103		100	103	75-125	5	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-50D-062618 MSD
Lab ID: 240-97762-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-97405-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Antimony	102		100	102	75-125	1	20		6020A
Dissolved Arsenic	1040		1000	104	75-125	1	20		6020A
Dissolved Barium	1040		1000	102	75-125	2	20		6020A
Dissolved Beryllium	1030		1000	103	75-125	2	20		6020A
Dissolved Cadmium	1020		1000	102	75-125	1	20		6020A
Dissolved Cobalt	1200		1000	109	75-125	0	20		6020A
Dissolved Chromium	1070		1000	107	75-125	0	20		6020A
Dissolved Copper	1080		1000	105	75-125	2	20		6020A
Dissolved Iron	29400		10000	110	75-125	0	20		6020A
Dissolved Manganese	3390		1000	116	75-125	0	20		6020A
Dissolved Molybdenum	106		100	106	75-125	2	20		6020A
Dissolved Nickel	1040		1000	98	75-125	2	20		6020A
Dissolved Lead	1020		1000	102	75-125	0	20		6020A
Dissolved Selenium	994		1000	99	75-125	1	20		6020A
Dissolved Zinc	1180		1000	102	75-125	0	20		6020A
Dissolved Thallium	241		250	96	75-125	0	20		6020A
Dissolved Vanadium	1090		1000	109	75-125	1	20		6020A
Dissolved Silver	101		100	101	75-125	2	20		6020A
Mercury, Dissolved	0.914		1.00	91	80-120	7	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-50D-062618 PDS Lab ID: 240-97762-2 PDS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Manganese	3130		2100		1000	100	80-120		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-332909/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	95.5		96	80	120		6020A
Dissolved Antimony	100	95.5		96	80	120		6020A
Arsenic	1000	909		91	80	120		6020A
Dissolved Arsenic	1000	909		91	80	120		6020A
Barium	1000	968		97	80	120		6020A
Dissolved Barium	1000	968		97	80	120		6020A
Beryllium	1000	891		89	80	120		6020A
Dissolved Beryllium	1000	891		89	80	120		6020A
Cadmium	1000	972		97	80	120		6020A
Dissolved Cadmium	1000	972		97	80	120		6020A
Cobalt	1000	991		99	80	120		6020A
Dissolved Cobalt	1000	991		99	80	120		6020A
Chromium	1000	963		96	80	120		6020A
Dissolved Chromium	1000	963		96	80	120		6020A
Copper	1000	1030		103	80	120		6020A
Dissolved Copper	1000	1030		103	80	120		6020A
Dissolved Iron	10000	9750		98	80	120		6020A
Iron	10000	9750		98	80	120		6020A
Dissolved Manganese	1000	991		99	80	120		6020A
Manganese	1000	991		99	80	120		6020A
Dissolved Molybdenum	100	94.7		95	80	120		6020A
Molybdenum	100	94.7		95	80	120		6020A
Dissolved Nickel	1000	921		92	80	120		6020A
Nickel	1000	921		92	80	120		6020A
Dissolved Lead	1000	1020		102	80	120		6020A
Lead	1000	1020		102	80	120		6020A
Dissolved Selenium	1000	1000		100	80	120		6020A
Selenium	1000	1000		100	80	120		6020A
Dissolved Thallium	250	249		99	80	120		6020A
Thallium	250	249		99	80	120		6020A
Dissolved Vanadium	1000	929		93	80	120		6020A
Dissolved Zinc	1000	1040		104	80	120		6020A
Vanadium	1000	929		93	80	120		6020A
Zinc	1000	1040		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-332909/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	96.3		96	80	120		6020A
Silver	100	96.3		96	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-333330/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	94.6		95	80	120		6020A
Dissolved Antimony	100	94.6		95	80	120		6020A
Arsenic	1000	930		93	80	120		6020A
Dissolved Arsenic	1000	930		93	80	120		6020A
Barium	1000	965		96	80	120		6020A
Dissolved Barium	1000	965		96	80	120		6020A
Beryllium	1000	1100		110	80	120	^	6020A
Dissolved Beryllium	1000	1100		110	80	120	^	6020A
Cadmium	1000	976		98	80	120		6020A
Dissolved Cadmium	1000	976		98	80	120		6020A
Cobalt	1000	1060		106	80	120		6020A
Dissolved Cobalt	1000	1060		106	80	120		6020A
Chromium	1000	1020		102	80	120		6020A
Dissolved Chromium	1000	1020		102	80	120		6020A
Copper	1000	1040		104	80	120		6020A
Dissolved Copper	1000	1040		104	80	120		6020A
Dissolved Iron	10000	10300		103	80	120		6020A
Iron	10000	10300		103	80	120		6020A
Dissolved Manganese	1000	1010		101	80	120		6020A
Manganese	1000	1010		101	80	120		6020A
Dissolved Molybdenum	100	94.6		95	80	120		6020A
Molybdenum	100	94.6		95	80	120		6020A
Dissolved Nickel	1000	1040		104	80	120		6020A
Nickel	1000	1040		104	80	120		6020A
Dissolved Lead	1000	1030		103	80	120		6020A
Lead	1000	1030		103	80	120		6020A
Dissolved Selenium	1000	947		95	80	120		6020A
Selenium	1000	947		95	80	120		6020A
Dissolved Thallium	250	252		101	80	120		6020A
Thallium	250	252		101	80	120		6020A
Dissolved Vanadium	1000	984		98	80	120		6020A
Dissolved Zinc	1000	1060		106	80	120		6020A
Vanadium	1000	984		98	80	120		6020A
Zinc	1000	1060		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-333330/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	97.9		98	80	120		6020A
Silver	100	97.9		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-333894/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.4		99	80	120		6020A
Dissolved Antimony	100	99.4		99	80	120		6020A
Arsenic	1000	1030		103	80	120		6020A
Dissolved Arsenic	1000	1030		103	80	120		6020A
Barium	1000	1000		100	80	120		6020A
Dissolved Barium	1000	1000		100	80	120		6020A
Beryllium	1000	1050		105	80	120		6020A
Dissolved Beryllium	1000	1050		105	80	120		6020A
Cadmium	1000	1030		103	80	120		6020A
Dissolved Cadmium	1000	1030		103	80	120		6020A
Cobalt	1000	1110		111	80	120		6020A
Dissolved Cobalt	1000	1110		111	80	120		6020A
Chromium	1000	1080		108	80	120		6020A
Dissolved Chromium	1000	1080		108	80	120		6020A
Copper	1000	1100		110	80	120		6020A
Dissolved Copper	1000	1100		110	80	120		6020A
Dissolved Iron	10000	10200		102	80	120		6020A
Iron	10000	10200		102	80	120		6020A
Dissolved Manganese	1000	1060		106	80	120		6020A
Manganese	1000	1060		106	80	120		6020A
Dissolved Molybdenum	100	107		107	80	120		6020A
Molybdenum	100	107		107	80	120		6020A
Dissolved Nickel	1000	1040		104	80	120		6020A
Nickel	1000	1040		104	80	120		6020A
Dissolved Lead	1000	1120		112	80	120		6020A
Lead	1000	1120		112	80	120		6020A
Dissolved Selenium	1000	1010		101	80	120		6020A
Selenium	1000	1010		101	80	120		6020A
Dissolved Thallium	250	260		104	80	120		6020A
Thallium	250	260		104	80	120		6020A
Dissolved Vanadium	1000	1070		107	80	120		6020A
Dissolved Zinc	1000	1050		105	80	120		6020A
Vanadium	1000	1070		107	80	120		6020A
Zinc	1000	1050		105	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-333894/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	106		106	80	120		6020A
Silver	100	106		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-332915/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTHGCALW_01856

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.63		113	80	120		7470A
Mercury, Dissolved	5.00	5.63		113	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-333331/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTHGCALW_01857

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.63		93	80	120		7470A
Mercury, Dissolved	5.00	4.63		93	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-333907/2-A

Lab Name: TestAmerica Canton Job No.: 240-97405-1

Sample Matrix: Water LCS Source: MTHGCALW_01860

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.93		99	80	120		7470A
Mercury, Dissolved	5.00	4.93		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-97762-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-97405-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	19		19.8	J	NC		6020A
Barium	19		19.8	J	NC		6020A
Beryllium	2.4		2.89	J	NC		6020A
Beryllium	2.4		2.89	J	NC		6020A
Cadmium	2.5		2.78	J	NC		6020A
Cadmium	2.5		2.78	J	NC		6020A
Cobalt	100		106		NC		6020A
Cobalt	100		106		NC		6020A
Chromium	3.3		4.9	U	NC		6020A
Chromium	3.3		4.9	U	NC		6020A
Copper	42		44.1		NC		6020A
Copper	42		44.1		NC		6020A
Dissolved Iron	17000		18700		7.0		6020A
Dissolved Iron	17000		18700		7.0		6020A
Dissolved Manganese	2100		2200		3.4		6020A
Dissolved Manganese	2100		2200		3.4		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	58		55.5		NC		6020A
Dissolved Nickel	58		55.5		NC		6020A
Dissolved Lead	0.59	J	2.3	U	NC		6020A
Dissolved Lead	0.59	J	2.3	U	NC		6020A
Dissolved Selenium	7.3		5.99	J	NC		6020A
Dissolved Selenium	7.3		5.99	J	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	2.6	J	4.1	U	NC		6020A
Dissolved Vanadium	2.6	J	4.1	U	NC		6020A
Zinc	150		162		NC		6020A
Zinc	150		162		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-97762-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-97405-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.053	U	0.27	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-97405-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Dissolved Zinc		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Zinc		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-332909/1-A	06/22/2018 14:00	332909		50	50
LCS 240-332909/2-A	06/22/2018 14:00	332909		50	50
240-97405-2	06/22/2018 14:00	332909		50	50
240-97405-2	06/22/2018 14:00	332909		50	50
240-97405-3	06/22/2018 14:00	332909		50	50
240-97405-3	06/22/2018 14:00	332909		50	50
240-97405-4	06/22/2018 14:00	332909		50	50
240-97405-4	06/22/2018 14:00	332909		50	50
240-97405-5	06/22/2018 14:00	332909		50	50
240-97405-5	06/22/2018 14:00	332909		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-333330/1-A	06/25/2018 14:00	333330		50	50
LCS 240-333330/2-A	06/25/2018 14:00	333330		50	50
240-97513-2	06/25/2018 14:00	333330		50	50
240-97513-2	06/25/2018 14:00	333330		50	50
240-97513-3	06/25/2018 14:00	333330		50	50
240-97513-3	06/25/2018 14:00	333330		50	50
240-97513-4	06/25/2018 14:00	333330		50	50
240-97513-4	06/25/2018 14:00	333330		50	50
240-97593-2	06/25/2018 14:00	333330		50	50
240-97593-2	06/25/2018 14:00	333330		50	50
240-97593-3	06/25/2018 14:00	333330		50	50
240-97593-3	06/25/2018 14:00	333330		50	50
240-97593-8	06/25/2018 14:00	333330		50	50
240-97593-8	06/25/2018 14:00	333330		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-333894/1-A	06/28/2018 14:00	333894		50	50
LCS 240-333894/2-A	06/28/2018 14:00	333894		50	50
240-97762-2	06/28/2018 14:00	333894		50	50
240-97762-2 MS	06/28/2018 14:00	333894		50	50
240-97762-2 MSD	06/28/2018 14:00	333894		50	50
240-97762-2	06/28/2018 14:00	333894		50	50
240-97762-2 MS	06/28/2018 14:00	333894		50	50
240-97762-2 MSD	06/28/2018 14:00	333894		50	50
240-97762-3	06/28/2018 14:00	333894		50	50
240-97762-3	06/28/2018 14:00	333894		50	50
240-97762-4	06/28/2018 14:00	333894		50	50
240-97762-4	06/28/2018 14:00	333894		50	50
240-97762-5	06/28/2018 14:00	333894		50	50
240-97762-5	06/28/2018 14:00	333894		50	50
240-97762-7	06/28/2018 14:00	333894		50	50
240-97762-7	06/28/2018 14:00	333894		50	50
240-97762-6	06/28/2018 14:00	333894		50	50
240-97762-6	06/28/2018 14:00	333894		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-332915/1-A	06/22/2018 14:00	332915		50	50
LCS 240-332915/2-A	06/22/2018 14:00	332915		50	50
240-97405-2	06/22/2018 14:00	332915		50	50
240-97405-2	06/22/2018 14:00	332915		50	50
240-97405-3	06/22/2018 14:00	332915		50	50
240-97405-3	06/22/2018 14:00	332915		50	50
240-97405-4	06/22/2018 14:00	332915		50	50
240-97405-4	06/22/2018 14:00	332915		50	50
240-97405-5	06/22/2018 14:00	332915		50	50
240-97405-5	06/22/2018 14:00	332915		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-333331/1-A	06/25/2018 14:00	333331		50	50
LCS 240-333331/2-A	06/25/2018 14:00	333331		50	50
240-97513-2	06/25/2018 14:00	333331		50	50
240-97513-2	06/25/2018 14:00	333331		50	50
240-97513-3	06/25/2018 14:00	333331		50	50
240-97513-3	06/25/2018 14:00	333331		50	50
240-97513-4	06/25/2018 14:00	333331		50	50
240-97513-4	06/25/2018 14:00	333331		50	50
240-97593-2	06/25/2018 14:00	333331		50	50
240-97593-2	06/25/2018 14:00	333331		50	50
240-97593-3	06/25/2018 14:00	333331		50	50
240-97593-3	06/25/2018 14:00	333331		50	50
240-97593-8	06/25/2018 14:00	333331		50	50
240-97593-8	06/25/2018 14:00	333331		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-333907/1-A	06/28/2018 14:00	333907		50	50
LCS 240-333907/2-A	06/28/2018 14:00	333907		50	50
240-97762-2	06/28/2018 14:00	333907		50	50
240-97762-2 MS	06/28/2018 14:00	333907		50	50
240-97762-2 MSD	06/28/2018 14:00	333907		50	50
240-97762-2	06/28/2018 14:00	333907		50	50
240-97762-2 MS	06/28/2018 14:00	333907		50	50
240-97762-2 MSD	06/28/2018 14:00	333907		50	50
240-97762-3	06/28/2018 14:00	333907		50	50
240-97762-3	06/28/2018 14:00	333907		50	50
240-97762-4	06/28/2018 14:00	333907		50	50
240-97762-4	06/28/2018 14:00	333907		50	50
240-97762-5	06/28/2018 14:00	333907		50	50
240-97762-5	06/28/2018 14:00	333907		50	50
240-97762-7	06/28/2018 14:00	333907		50	50
240-97762-7	06/28/2018 14:00	333907		50	50
240-97762-6	06/28/2018 14:00	333907		50	50
240-97762-6	06/28/2018 14:00	333907		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/23/2018 14:54 End Date: 06/24/2018 01:16

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			14:54																									
ICIS 240-333143/2			14:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-333143/3 IC	1		15:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-333143/4 IC	1		15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-333143/5 IC	1		15:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-333143/6 IC	1		15:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-333143/7	1		15:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-333143/8	1		15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-333143/9	1		15:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-333143/10	1		15:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-333143/11	1		15:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-333143/12	1		15:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-333143/13	1		15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			15:55																									
MB 240-332909/1-A	1	R	15:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-332909/2-A	1	R	16:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			16:08																									
ZZZZZZ			16:13																									
ZZZZZZ			16:17																									
ZZZZZZ			16:22																									
ZZZZZZ			16:26																									
240-97405-2	1	R	16:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-2	1	D	16:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-333143/24	1		16:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-333143/25	1		16:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-3	1	R	16:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-3	1	D	16:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-4	1	R	16:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-4	1	D	17:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-5	1	R	17:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97405-5	1	D	17:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			17:16																									
ZZZZZZ			17:20																									
ZZZZZZ			17:25																									
ZZZZZZ			17:29																									
CCV 240-333143/36	1		17:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-333143/37	1		17:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			17:43																									
ZZZZZZ			17:47																									
ZZZZZZ			17:52																									
ZZZZZZ			17:56																									
ZZZZZZ			18:01																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/23/2018 14:54 End Date: 06/24/2018 01:16

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:05																									
CCV 240-333143/44			18:10																									
CCB 240-333143/45			18:14																									
CCVL 240-333143/46	1		18:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			18:23																									
ZZZZZZ			18:28																									
ZZZZZZ			18:32																									
ZZZZZZ			18:37																									
ZZZZZZ			18:41																									
ZZZZZZ			18:46																									
ZZZZZZ			18:50																									
ZZZZZZ			18:54																									
ZZZZZZ			18:59																									
CCV 240-333143/56			19:04																									
CCB 240-333143/57			19:08																									
ZZZZZZ			19:13																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:26																									
ZZZZZZ			19:31																									
ZZZZZZ			19:35																									
ZZZZZZ			19:40																									
ZZZZZZ			19:44																									
ZZZZZZ			19:49																									
ZZZZZZ			19:53																									
CCV 240-333143/68			19:57																									
CCB 240-333143/69			20:02																									
ZZZZZZ			20:06																									
CCV 240-333143/71			20:11																									
CCB 240-333143/72			20:15																									
CCVL 240-333143/73			20:20																									
ZZZZZZ			20:24																									
ZZZZZZ			20:29																									
ZZZZZZ			20:34																									
ZZZZZZ			20:38																									
ZZZZZZ			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:51																									
ZZZZZZ			20:56																									
ZZZZZZ			21:00																									
CCV 240-333143/83			21:05																									
CCB 240-333143/84			21:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/23/2018 14:54 End Date: 06/24/2018 01:16

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:14																										
ZZZZZZ			21:18																										
ZZZZZZ			21:23																										
ZZZZZZ			21:27																										
ZZZZZZ			21:32																										
ZZZZZZ			21:36																										
ZZZZZZ			21:41																										
ZZZZZZ			21:45																										
ZZZZZZ			21:49																										
ZZZZZZ			21:54																										
CCV 240-333143/95			21:59																										
CCB 240-333143/96			22:03																										
ZZZZZZ			22:08																										
ZZZZZZ			22:12																										
ZZZZZZ			22:17																										
ZZZZZZ			22:21																										
ZZZZZZ			22:26																										
ZZZZZZ			22:30																										
ZZZZZZ			22:35																										
ZZZZZZ			22:39																										
ZZZZZZ			22:44																										
ZZZZZZ			22:48																										
CCV 240-333143/107			22:53																										
CCB 240-333143/108			22:57																										
ZZZZZZ			23:02																										
ZZZZZZ			23:06																										
ZZZZZZ			23:11																										
ZZZZZZ			23:15																										
ZZZZZZ			23:20																										
ZZZZZZ			23:24																										
ZZZZZZ			23:29																										
ZZZZZZ			23:33																										
ZZZZZZ			23:37																										
ZZZZZZ			23:42																										
CCV 240-333143/119			23:46																										
CCB 240-333143/120			23:51																										
ZZZZZZ			23:55																										
ZZZZZZ			00:00																										
ZZZZZZ			00:04																										
ZZZZZZ			00:09																										
ZZZZZZ			00:13																										
ZZZZZZ			00:18																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/23/2018 14:54 End Date: 06/24/2018 01:16

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			00:22																											
ZZZZZZ			00:27																											
ZZZZZZ			00:31																											
ZZZZZZ			00:36																											
CCV 240-333143/131			00:40																											
CCB 240-333143/132			00:45																											
ZZZZZZ			00:49																											
ZZZZZZ			00:54																											
CCV 240-333143/135			00:58																											
CCB 240-333143/136			01:03																											
CCVL 240-333143/137			01:07																											
CCV 240-333143/138			01:12																											
CCB 240-333143/139			01:16																											

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			15:12																									
ICIS 240-333675/2	1		15:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-333675/3 IC	1		15:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-333675/4 IC	1		15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-333675/5 IC	1		15:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-333675/6 IC	1		15:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-333675/7	1		15:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-333675/8	1		15:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-333675/9	1		15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-333675/10	1		15:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-333675/11	1		15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-333675/12			16:01																									
CCB 240-333675/13			16:05																									
CCV 240-333675/14			16:13																									
CCB 240-333675/15			16:18																									
ZZZZZZ			16:25																									
ZZZZZZ			16:29																									
ZZZZZZ			16:33																									
ZZZZZZ			16:38																									
ZZZZZZ			16:42																									
ZZZZZZ			16:47																									
ZZZZZZ			16:51																									
CCV 240-333675/23			16:57																									
CCB 240-333675/24			17:01																									
CCVL 240-333675/25			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:24																									
ZZZZZZ			17:28																									
ZZZZZZ			17:32																									
ZZZZZZ			17:37																									
ZZZZZZ			17:41																									
ZZZZZZ			17:46																									
CCV 240-333675/35			17:50																									
CCB 240-333675/36			17:55																									
ZZZZZZ			17:59																									
ZZZZZZ			18:04																									
ZZZZZZ			18:08																									
ZZZZZZ			18:13																									
ZZZZZZ			18:17																									
ZZZZZZ			18:22																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn							
ZZZZZZ			18:26																								
ZZZZZZ			18:31																								
ZZZZZZ			18:35																								
ZZZZZZ			18:40																								
CCV 240-333675/47			18:44																								
CCB 240-333675/48			18:49																								
ZZZZZZ			18:53																								
ZZZZZZ			18:57																								
ZZZZZZ			19:02																								
ZZZZZZ			19:06																								
CCV 240-333675/53	1		19:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-333675/54	1		19:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCVL 240-333675/55			19:20																								
MB 240-333330/1-A	1	R	19:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
LCS 240-333330/2-A	1	R	19:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
ZZZZZZ			19:33																								
ZZZZZZ			19:38																								
ZZZZZZ			19:42																								
ZZZZZZ			19:47																								
ZZZZZZ			19:51																								
ZZZZZZ			19:55																								
ZZZZZZ			20:00																								
CCV 240-333675/65	1		20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-333675/66	1		20:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-2	1	R	20:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-2	1	D	20:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-3	1	R	20:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-3	1	D	20:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-4	1	R	20:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97513-4	1	D	20:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			20:40																								
240-97593-2	1	R	20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97593-2	1	D	20:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97593-3	1	R	20:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-333675/77	1		20:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-333675/78	1		21:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97593-3	1	D	21:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97593-8	1	R	21:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-97593-8	1	D	21:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCV 240-333675/82	1		21:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
CCB 240-333675/83	1		21:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCVL 240-333675/84	1		21:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:34																									
ZZZZZZ			21:38																									
ZZZZZZ			21:43																									
ZZZZZZ			21:47																									
ZZZZZZ			21:52																									
ZZZZZZ			21:56																									
ZZZZZZ			22:00																									
ZZZZZZ			22:05																									
ZZZZZZ			22:09																									
CCV 240-333675/94			22:14																									
CCB 240-333675/95			22:18																									
ZZZZZZ			22:23																									
ZZZZZZ			22:27																									
ZZZZZZ			22:32																									
ZZZZZZ			22:36																									
ZZZZZZ			22:41																									
ZZZZZZ			22:45																									
ZZZZZZ			22:49																									
ZZZZZZ			22:54																									
ZZZZZZ			22:58																									
ZZZZZZ			23:03																									
CCV 240-333675/106			23:07																									
CCB 240-333675/107			23:12																									
ZZZZZZ			23:16																									
ZZZZZZ			23:21																									
ZZZZZZ			23:25																									
ZZZZZZ			23:30																									
ZZZZZZ			23:34																									
ZZZZZZ			23:39																									
ZZZZZZ			23:43																									
ZZZZZZ			23:48																									
ZZZZZZ			23:52																									
ZZZZZZ			23:57																									
CCV 240-333675/118			00:01																									
CCB 240-333675/119			00:06																									
ZZZZZZ			00:10																									
ZZZZZZ			00:15																									
ZZZZZZ			00:19																									
ZZZZZZ			00:24																									
ZZZZZZ			00:28																									
ZZZZZZ			00:33																									
ZZZZZZ			00:37																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			00:42																										
ZZZZZZ			00:46																										
ZZZZZZ			00:51																										
CCV 240-333675/130			00:55																										
CCB 240-333675/131			01:00																										
ZZZZZZ			01:05																										
ZZZZZZ			01:09																										
ZZZZZZ			01:14																										
ZZZZZZ			01:18																										
ZZZZZZ			01:23																										
ZZZZZZ			01:27																										
ZZZZZZ			01:32																										
CCV 240-333675/139			01:36																										
CCB 240-333675/140			01:41																										
CCVL 240-333675/141			01:45																										
ZZZZZZ			01:50																										
ZZZZZZ			01:55																										
ZZZZZZ			01:59																										
ZZZZZZ			02:04																										
ZZZZZZ			02:08																										
ZZZZZZ			02:13																										
ZZZZZZ			02:17																										
ICSA 240-333675/149			02:21																										
ICSAB 240-333675/150			02:26																										
ZZZZZZ			02:30																										
ZZZZZZ			02:35																										
CCV 240-333675/153			02:39																										
CCB 240-333675/154			02:44																										
ZZZZZZ			02:49																										
ZZZZZZ			02:53																										
ZZZZZZ			02:58																										
ZZZZZZ			03:02																										
ZZZZZZ			03:07																										
ZZZZZZ			03:11																										
ZZZZZZ			03:16																										
ZZZZZZ			03:20																										
ZZZZZZ			03:25																										
ZZZZZZ			03:29																										
CCV 240-333675/165			03:34																										
CCB 240-333675/166			03:38																										
ZZZZZZ			03:43																										
ZZZZZZ			03:47																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			03:52																										
ZZZZZZ			03:56																										
ZZZZZZ			04:01																										
ZZZZZZ			04:05																										
ZZZZZZ			04:10																										
CCV 240-333675/174			04:14																										
CCB 240-333675/175			04:19																										
CCVL 240-333675/176			04:24																										
ZZZZZZ			04:28																										
ZZZZZZ			04:33																										
ZZZZZZ			04:37																										
ZZZZZZ			04:42																										
ZZZZZZ			04:46																										
ZZZZZZ			04:51																										
ZZZZZZ			04:55																										
ZZZZZZ			05:00																										
ZZZZZZ			05:04																										
CCV 240-333675/186			05:09																										
CCB 240-333675/187			05:13																										
ZZZZZZ			05:18																										
ZZZZZZ			05:22																										
ZZZZZZ			05:27																										
ZZZZZZ			05:31																										
ZZZZZZ			05:36																										
ZZZZZZ			05:40																										
ZZZZZZ			05:45																										
ZZZZZZ			05:49																										
ZZZZZZ			05:54																										
ZZZZZZ			05:58																										
CCV 240-333675/198			06:03																										
CCB 240-333675/199			06:07																										
ZZZZZZ			06:12																										
CCV 240-333675/201			06:17																										
CCB 240-333675/202			06:21																										
CCVL 240-333675/203			06:26																										
ZZZZZZ			06:30																										
ZZZZZZ			06:35																										
ZZZZZZ			06:39																										
ZZZZZZ			06:44																										
ZZZZZZ			06:48																										
ZZZZZZ			06:53																										
ZZZZZZ			06:57																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/26/2018 15:12 End Date: 06/27/2018 07:33

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			07:02																											
ZZZZZZ			07:06																											
CCV 240-333675/213			07:11																											
CCB 240-333675/214			07:15																											
ZZZZZZ			07:20																											
ZZZZZZ			07:24																											
CCV 240-333675/217			07:29																											
CCB 240-333675/218			07:33																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/29/2018 15:26 End Date: 06/30/2018 02:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			15:26																									
ICIS 240-334257/2			15:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-334257/3 IC	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-334257/4 IC	1		15:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-334257/5 IC	1		15:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-334257/6 IC	1		15:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-334257/7	1		15:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-334257/8	1		15:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-334257/9	1		16:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-334257/10	1		16:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-334257/11	1		16:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-334257/12	1		16:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334257/13	1		16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MB 240-333894/1-A	1	R	16:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-333894/2-A	1	R	16:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97762-2	1	R	16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-2 SD	5	R	16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-2 MS	1	R	16:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97762-2 MSD	1	R	16:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97762-2 PDS	1	R	16:59										X																
240-97762-2	1	D	17:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-2 MS	1	D	17:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97762-2 MSD	1	D	17:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-334257/24	1		17:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334257/25	1		17:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			17:26																									
240-97762-3	1	R	17:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-3	1	D	17:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-4	1	R	17:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-4	1	D	17:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-5	1	R	17:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-5	1	D	17:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-7	1	R	17:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-7	1	D	18:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-6	1	R	18:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-334257/36	1		18:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334257/37	1		18:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97762-6	1	D	18:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-334257/39	1		18:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334257/40	1		18:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-334257/41	1		18:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			18:38																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/29/2018 15:26 End Date: 06/30/2018 02:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:43																										
ZZZZZZ			18:47																										
ZZZZZZ			18:52																										
ZZZZZZ			18:56																										
ZZZZZZ			19:01																										
ZZZZZZ			19:05																										
ZZZZZZ			19:10																										
ZZZZZZ			19:14																										
CCV 240-334257/51			19:19																										
CCB 240-334257/52			19:23																										
ZZZZZZ			19:28																										
CCV 240-334257/54			19:32																										
CCB 240-334257/55			19:37																										
CCVL 240-334257/56			19:41																										
ZZZZZZ			19:46																										
ZZZZZZ			19:51																										
ZZZZZZ			19:55																										
ZZZZZZ			19:59																										
ZZZZZZ			20:04																										
ZZZZZZ			20:09																										
ZZZZZZ			20:13																										
ZZZZZZ			20:18																										
ZZZZZZ			20:22																										
CCV 240-334257/66			20:27																										
CCB 240-334257/67			20:31																										
ZZZZZZ			20:36																										
ZZZZZZ			20:40																										
ZZZZZZ			20:45																										
ZZZZZZ			20:49																										
ZZZZZZ			20:54																										
ZZZZZZ			20:58																										
ZZZZZZ			21:03																										
ZZZZZZ			21:07																										
ZZZZZZ			21:12																										
ZZZZZZ			21:16																										
CCV 240-334257/78			21:21																										
CCB 240-334257/79			21:25																										
ZZZZZZ			21:30																										
ZZZZZZ			21:34																										
ZZZZZZ			21:39																										
ZZZZZZ			21:43																										
ZZZZZZ			21:48																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/29/2018 15:26 End Date: 06/30/2018 02:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:52																									
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:06																									
CCV 240-334257/89			22:10																									
CCB 240-334257/90			22:15																									
CCVL 240-334257/91			22:19																									
ZZZZZZ			22:24																									
ZZZZZZ			22:28																									
ZZZZZZ			22:33																									
ZZZZZZ			22:37																									
ZZZZZZ			22:42																									
ZZZZZZ			22:46																									
ZZZZZZ			22:51																									
ZZZZZZ			22:55																									
ZZZZZZ			23:00																									
CCV 240-334257/101			23:04																									
CCB 240-334257/102			23:09																									
ZZZZZZ			23:13																									
ZZZZZZ			23:18																									
ZZZZZZ			23:22																									
ZZZZZZ			23:27																									
ZZZZZZ			23:31																									
ZZZZZZ			23:36																									
ZZZZZZ			23:40																									
ZZZZZZ			23:45																									
ZZZZZZ			23:49																									
ZZZZZZ			23:54																									
CCV 240-334257/113			23:58																									
CCB 240-334257/114			00:03																									
ZZZZZZ			00:07																									
ZZZZZZ			00:12																									
ZZZZZZ			00:16																									
ZZZZZZ			00:21																									
ZZZZZZ			00:25																									
ZZZZZZ			00:30																									
ZZZZZZ			00:34																									
ZZZZZZ			00:39																									
ZZZZZZ			00:43																									
ZZZZZZ			00:48																									
CCV 240-334257/125			00:52																									
CCB 240-334257/126			00:57																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 06/29/2018 15:26 End Date: 06/30/2018 02:27

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			01:01																											
ZZZZZZ			01:06																											
ZZZZZZ			01:11																											
ZZZZZZ			01:15																											
ZZZZZZ			01:20																											
ZZZZZZ			01:24																											
ZZZZZZ			01:29																											
ZZZZZZ			01:33																											
ZZZZZZ			01:38																											
ZZZZZZ			01:42																											
CCV 240-334257/137			01:47																											
CCB 240-334257/138			01:51																											
ZZZZZZ			01:56																											
ZZZZZZ			02:00																											
ZZZZZZ			02:05																											
ZZZZZZ			02:09																											
ZZZZZZ			02:14																											
ZZZZZZ			02:18																											
CCV 240-334257/145			02:23																											
CCB 240-334257/146			02:27																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/23/2018 09:42 End Date: 06/23/2018 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-332977/1-A			09:42	X																								
IC 240-332977/2-A			09:44	X																								
IC 240-332977/3-A			09:46	X																								
IC 240-332977/4-A			09:48	X																								
IC 240-332977/5-A			09:50	X																								
IC 240-332977/6-A			09:52	X																								
ICV 240-332977/7-A	1		10:01	X																								
ICB 240-332977/8-A	1		10:03	X																								
CRA 240-332977/9-A	1		10:05	X																								
CCV 240-332977/10-A			10:07																									
CCB 240-332977/11-A			10:09																									
CCV 240-332977/10-A			10:11																									
CCB 240-332977/11-A			10:13																									
ZZZZZZ			10:52																									
ZZZZZZ			10:54																									
ZZZZZZ			10:56																									
ZZZZZZ			10:58																									
ZZZZZZ			11:01																									
ZZZZZZ			11:02																									
ZZZZZZ			11:05																									
ZZZZZZ			11:07																									
ZZZZZZ			11:09																									
ZZZZZZ			11:11																									
CCV 240-332977/10-A			11:13																									
CCB 240-332977/11-A			11:15																									
ZZZZZZ			11:17																									
ZZZZZZ			11:19																									
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									
ZZZZZZ			11:25																									
ZZZZZZ			11:27																									
ZZZZZZ			11:29																									
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
CCV 240-332977/10-A			11:38																									
CCB 240-332977/11-A			11:40																									
ZZZZZZ			11:42																									
ZZZZZZ			11:44																									
ZZZZZZ			11:46																									
ZZZZZZ			11:48																									
ZZZZZZ			11:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/23/2018 09:42 End Date: 06/23/2018 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			11:52																									
ZZZZZZ			11:54																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
ZZZZZZ			12:00																									
CCV 240-332977/10-A			12:01																									
CCB 240-332977/11-A			12:03																									
ZZZZZZ			12:26																									
ZZZZZZ			12:28																									
ZZZZZZ			12:30																									
ZZZZZZ			12:32																									
ZZZZZZ			12:34																									
ZZZZZZ			12:35																									
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:45																									
CCV 240-332977/10-A			12:47																									
CCB 240-332977/11-A			12:48																									
ZZZZZZ			12:51																									
ZZZZZZ			12:53																									
ZZZZZZ			12:55																									
ZZZZZZ			12:57																									
ZZZZZZ			12:59																									
ZZZZZZ			13:01																									
ZZZZZZ			13:03																									
ZZZZZZ			13:05																									
ZZZZZZ			13:07																									
ZZZZZZ			13:09																									
CCV 240-332977/10-A			13:11																									
CCB 240-332977/11-A			13:13																									
ZZZZZZ			13:15																									
ZZZZZZ			13:17																									
ZZZZZZ			13:19																									
ZZZZZZ			13:21																									
ZZZZZZ			13:23																									
ZZZZZZ			13:25																									
ZZZZZZ			13:27																									
ZZZZZZ			13:29																									
ZZZZZZ			13:31																									
ZZZZZZ			13:33																									
CCV 240-332977/10-A			13:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/23/2018 09:42 End Date: 06/23/2018 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-332977/11-A			13:36																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
ZZZZZZ			13:43																									
ZZZZZZ			13:45																									
ZZZZZZ			13:47																									
ZZZZZZ			13:49																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
CCV 240-332977/10-A			13:59																									
CCB 240-332977/11-A			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									
ZZZZZZ			14:19																									
ZZZZZZ			14:21																									
CCV 240-332977/10-A			14:23																									
CCB 240-332977/11-A			14:25																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:31																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
CCV 240-332977/10-A			14:48																									
CCB 240-332977/11-A			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/23/2018 09:42 End Date: 06/23/2018 15:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
CCV 240-332977/10-A	1		15:11	X																								
CCB 240-332977/11-A	1		15:13	X																								
ZZZZZZ			15:16																									
MB 240-332915/1-A	1	T	15:18	X																								
LCS 240-332915/2-A	1	T	15:20	X																								
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
240-97405-2	1	T	15:28	X																								
240-97405-2	1	D	15:30	X																								
240-97405-3	1	T	15:32	X																								
240-97405-3	1	D	15:34	X																								
CCV 240-332977/10-A	1		15:36	X																								
CCB 240-332977/11-A	1		15:38	X																								
240-97405-4	1	T	15:41	X																								
240-97405-4	1	D	15:43	X																								
240-97405-5	1	T	15:45	X																								
240-97405-5	1	D	15:47	X																								
ZZZZZZ			15:49																									
CCV 240-332977/10-A	1		15:51	X																								
CCB 240-332977/11-A	1		15:53	X																								

Prep Types:
D = Dissolved
T = Total/NA

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/26/2018 11:52 End Date: 06/26/2018 17:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-333523/1-A			11:52	X																								
IC 240-333523/2-A			11:54	X																								
IC 240-333523/3-A			11:56	X																								
IC 240-333523/4-A			11:58	X																								
IC 240-333523/5-A			12:00	X																								
IC 240-333523/6-A			12:02	X																								
ICV 240-333523/7-A	1		12:46	X																								
ICB 240-333523/8-A	1		12:48	X																								
CRA 240-333523/9-A	1		12:50	X																								
CCV 240-333523/10-A			12:52																									
CCB 240-333523/11-A			12:54																									
CCV 240-333523/10-A			12:57																									
CCB 240-333523/11-A			12:59																									
ZZZZZZ			13:23																									
ZZZZZZ			13:25																									
ZZZZZZ			13:27																									
ZZZZZZ			13:29																									
ZZZZZZ			13:31																									
ZZZZZZ			13:33																									
ZZZZZZ			13:35																									
ZZZZZZ			13:37																									
ZZZZZZ			13:39																									
ZZZZZZ			13:41																									
CCV 240-333523/10-A			13:43																									
CCB 240-333523/11-A			13:45																									
ZZZZZZ			13:48																									
ZZZZZZ			13:49																									
ZZZZZZ			13:52																									
CCV 240-333523/10-A	1		13:54	X																								
CCB 240-333523/11-A	1		13:56	X																								
MB 240-333331/1-A	1	T	15:05	X																								
LCS 240-333331/2-A	1	T	15:07	X																								
ZZZZZZ			15:08																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
240-97513-2	1	T	15:17	X																								
CCV 240-333523/10-A	1		15:19	X																								
CCB 240-333523/11-A	1		15:21	X																								
240-97513-2	1	D	15:23	X																								
240-97513-3	1	T	15:25	X																								
240-97513-3	1	D	15:27	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/26/2018 11:52 End Date: 06/26/2018 17:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-97513-4	1	T	15:29	X																								
240-97513-4	1	D	15:31	X																								
ZZZZZZ			15:33																									
240-97593-2	1	T	15:35	X																								
240-97593-2	1	D	15:37	X																								
240-97593-3	1	T	15:39	X																								
240-97593-3	1	D	15:41	X																								
CCV 240-333523/10-A	1		15:42	X																								
CCB 240-333523/11-A	1		15:44	X																								
240-97593-8	1	T	15:47	X																								
240-97593-8	1	D	15:49	X																								
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
ZZZZZZ			15:55																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
CCV 240-333523/10-A	1		16:07	X																								
CCB 240-333523/11-A	1		16:09	X																								
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
ZZZZZZ			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:29																									
CCV 240-333523/10-A			16:31																									
CCB 240-333523/11-A			16:33																									
ZZZZZZ			16:36																									
ZZZZZZ			16:37																									
ZZZZZZ			16:39																									
ZZZZZZ			16:41																									
ZZZZZZ			16:43																									
ZZZZZZ			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/26/2018 11:52 End Date: 06/26/2018 17:59

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			16:53																									
CCV 240-333523/10-A			16:55																									
CCB 240-333523/11-A			16:57																									
ZZZZZZ			16:59																									
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:06																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:15																									
ZZZZZZ			17:17																									
CCV 240-333523/10-A			17:19																									
CCB 240-333523/11-A			17:21																									
ZZZZZZ			17:24																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:29																									
ZZZZZZ			17:31																									
ZZZZZZ			17:33																									
ZZZZZZ			17:35																									
ZZZZZZ			17:37																									
ZZZZZZ			17:39																									
ZZZZZZ			17:41																									
CCV 240-333523/10-A			17:43																									
CCB 240-333523/11-A			17:45																									
ZZZZZZ			17:47																									
ZZZZZZ			17:49																									
ZZZZZZ			17:51																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
CCV 240-333523/10-A			17:57																									
CCB 240-333523/11-A			17:59																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/29/2018 08:36 End Date: 06/29/2018 19:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-333895/1-A			08:36	X																								
IC 240-333895/2-A			08:38	X																								
IC 240-333895/3-A			08:40	X																								
IC 240-333895/4-A			08:42	X																								
IC 240-333895/5-A			08:44	X																								
IC 240-333895/6-A			08:46	X																								
ICV 240-333895/7-A	1		08:54	X																								
ICB 240-333895/8-A	1		08:56	X																								
CRA 240-333895/9-A	1		08:59	X																								
CCV 240-333895/10-A			09:00																									
CCB 240-333895/11-A			09:02																									
CCV 240-333895/10-A			09:05																									
CCB 240-333895/11-A			09:07																									
ZZZZZZ			09:27																									
ZZZZZZ			09:29																									
ZZZZZZ			09:31																									
ZZZZZZ			09:33																									
ZZZZZZ			09:35																									
ZZZZZZ			09:37																									
ZZZZZZ			09:40																									
ZZZZZZ			09:42																									
ZZZZZZ			09:44																									
ZZZZZZ			09:46																									
CCV 240-333895/10-A			09:48																									
CCB 240-333895/11-A			09:50																									
ZZZZZZ			09:53																									
ZZZZZZ			09:55																									
ZZZZZZ			09:57																									
CCV 240-333895/10-A			09:59																									
CCB 240-333895/11-A			10:01																									
ZZZZZZ			13:55																									
ZZZZZZ			13:57																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
CCV 240-333895/10-A			14:09																									
CCB 240-333895/11-A			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/29/2018 08:36 End Date: 06/29/2018 19:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:19																									
ZZZZZZ			14:21																									
CCV 240-333895/10-A			14:23																									
CCB 240-333895/11-A			14:25																									
ZZZZZZ			15:19																									
ZZZZZZ			15:21																									
ZZZZZZ			15:23																									
ZZZZZZ			15:25																									
ZZZZZZ			15:27																									
CCV 240-333895/10-A			15:29																									
CCB 240-333895/11-A			15:31																									
ZZZZZZ			15:34																									
ZZZZZZ			15:35																									
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:52																									
CCV 240-333895/10-A			15:54																									
CCB 240-333895/11-A			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:03																									
ZZZZZZ			16:04																									
ZZZZZZ			16:07																									
ZZZZZZ			16:09																									
ZZZZZZ			16:11																									
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
CCV 240-333895/10-A			16:19																									
CCB 240-333895/11-A			16:21																									
CCV 240-333895/10-A	1		16:23	X																								
CCB 240-333895/11-A	1		16:25	X																								
ZZZZZZ			16:48																									
ZZZZZZ			16:50																									
ZZZZZZ			16:52																									
ZZZZZZ			16:54																									
ZZZZZZ			16:56																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/29/2018 08:36 End Date: 06/29/2018 19:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:04																									
MB 240-333907/1-A	1	T	17:06	X																								
CCV 240-333895/10-A	1		17:08	X																								
CCB 240-333895/11-A	1		17:10	X																								
LCS 240-333907/2-A	1	T	17:12	X																								
240-97762-2	1	T	17:14	X																								
240-97762-2 MS	1	T	17:16	X																								
240-97762-2 MSD	1	T	17:18	X																								
240-97762-2	1	D	17:20	X																								
240-97762-2 MS	1	D	17:23	X																								
240-97762-2 MSD	1	D	17:24	X																								
240-97762-3	1	T	17:27	X																								
240-97762-3	1	D	17:29	X																								
240-97762-4	1	T	17:31	X																								
CCV 240-333895/10-A	1		17:33	X																								
CCB 240-333895/11-A	1		17:34	X																								
240-97762-4	1	D	17:37	X																								
240-97762-5	1	T	17:39	X																								
240-97762-5	1	D	17:41	X																								
240-97762-7	1	T	17:43	X																								
240-97762-7	1	D	17:45	X																								
ZZZZZZ			17:47																									
240-97762-6	1	T	17:48	X																								
240-97762-6	1	D	17:50	X																								
ZZZZZZ			17:52																									
ZZZZZZ			17:54																									
CCV 240-333895/10-A	1		17:56	X																								
CCB 240-333895/11-A	1		17:58	X																								
ZZZZZZ			18:01																									
ZZZZZZ			18:02																									
ZZZZZZ			18:05																									
ZZZZZZ			18:07																									
ZZZZZZ			18:09																									
ZZZZZZ			18:12																									
ZZZZZZ			18:14																									
ZZZZZZ			18:16																									
ZZZZZZ			18:18																									
ZZZZZZ			18:20																									
CCV 240-333895/10-A			18:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/29/2018 08:36 End Date: 06/29/2018 19:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-333895/11-A			18:23																									
ZZZZZZ			18:26																									
ZZZZZZ			18:28																									
ZZZZZZ			18:30																									
ZZZZZZ			18:32																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
ZZZZZZ			18:38																									
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:44																									
CCV 240-333895/10-A			18:46																									
CCB 240-333895/11-A			18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:52																									
ZZZZZZ			18:54																									
ZZZZZZ			18:56																									
ZZZZZZ			18:58																									
ZZZZZZ			19:00																									
ZZZZZZ			19:02																									
ZZZZZZ			19:04																									
ZZZZZZ			19:06																									
ZZZZZZ			19:08																									
CCV 240-333895/10-A			19:10																									
CCB 240-333895/11-A			19:12																									
ZZZZZZ			19:15																									
ZZZZZZ			19:17																									
ZZZZZZ			19:19																									
ZZZZZZ			19:21																									
ZZZZZZ			19:22																									
ZZZZZZ			19:24																									
ZZZZZZ			19:26																									
ZZZZZZ			19:28																									
ZZZZZZ			19:30																									
ZZZZZZ			19:32																									
CCV 240-333895/10-A			19:34																									
CCB 240-333895/11-A			19:36																									
ZZZZZZ			19:38																									
ZZZZZZ			19:40																									
ZZZZZZ			19:42																									
CCV 240-333895/10-A			19:44																									
CCB 240-333895/11-A			19:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 06/29/2018 08:36 End Date: 06/29/2018 19:46

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								

Prep Types:
D = Dissolved
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/23/2018 End Date: 06/23/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-333143/3 IC	15:03	98		100		100		101		100	
STD2 240-333143/4 IC	15:07	96		100		100		98		99	
STD3 240-333143/5 IC	15:12	97		101		100		95		96	
STD4 240-333143/6 IC	15:16	96		102		101		104		102	
ICV 240-333143/7	15:21	97		102		101		98		99	
ICB 240-333143/8	15:25	98		103		101		104		103	
ICVL 240-333143/9	15:30	98		104		102		105		105	
ICSA 240-333143/10	15:34	94		99		97		94		99	
ICSAB 240-333143/11	15:39	91		98		98		96		99	
CCV 240-333143/12	15:43	93		101		100		104		102	
CCB 240-333143/13	15:48	97		102		101		107		106	
MB 240-332909/1-A	15:59	91		99		97		105		102	
LCS 240-332909/2-A	16:04	86		95		94		99		98	
240-97405-2	16:31	84		94		94		99		98	
240-97405-2	16:35	81		95		96		97		100	
CCV 240-333143/24	16:40	92		104		103		106		104	
CCB 240-333143/25	16:44	99		110		107		112		109	
240-97405-3	16:49	89		100		98		101		101	
240-97405-3	16:53	89		100		102		100		100	
240-97405-4	16:58	84		96		96		96		95	
240-97405-4	17:02	83		95		95		96		94	
240-97405-5	17:07	88		99		97		106		101	
240-97405-5	17:11	87		99		99		106		100	
CCV 240-333143/36	17:34	92		101		100		106		105	
CCB 240-333143/37	17:38	99		105		103		111		108	
CCVL 240-333143/46	18:19	99		103		102		110		106	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/23/2018 End Date: 06/23/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-333143/3 IC	15:03	101		99		100					
STD2 240-333143/4 IC	15:07	100		100		98					
STD3 240-333143/5 IC	15:12	99		100		95					
STD4 240-333143/6 IC	15:16	105		102		102					
ICV 240-333143/7	15:21	102		102		99					
ICB 240-333143/8	15:25	105		101		101					
ICVL 240-333143/9	15:30	103		101		100					
ICSA 240-333143/10	15:34	102		99		95					
ICSAB 240-333143/11	15:39	104		102		97					
CCV 240-333143/12	15:43	105		104		99					
CCB 240-333143/13	15:48	106		104		101					
MB 240-332909/1-A	15:59	107		103		106					
LCS 240-332909/2-A	16:04	104		101		97					
240-97405-2	16:31	105		101		98					
240-97405-2	16:35	103		102		98					
CCV 240-333143/24	16:40	109		106		100					
CCB 240-333143/25	16:44	110		106		103					
240-97405-3	16:49	105		102		96					
240-97405-3	16:53	107		105		99					
240-97405-4	16:58	103		101		93					
240-97405-4	17:02	96		98		93					
240-97405-5	17:07	105		103		102					
240-97405-5	17:11	103		101		101					
CCV 240-333143/36	17:34	108		105		99					
CCB 240-333143/37	17:38	110		106		103					
CCVL 240-333143/46	18:19	108		105		102					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/26/2018 End Date: 06/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
ICIS 240-333675/2	15:16	100		100		100		100		100	
STD1 240-333675/3 IC	15:21	99		99		100		98		100	
STD2 240-333675/4 IC	15:25	96		98		98		94		97	
STD3 240-333675/5 IC	15:30	96		98		101		93		95	
STD4 240-333675/6 IC	15:34	99		102		103		100		103	
ICV 240-333675/7	15:39	99		101		102		96		99	
ICB 240-333675/8	15:43	101		102		104		102		102	
ICVL 240-333675/9	15:48	101		100		102		101		103	
ICSA 240-333675/10	15:52	95		97		100		91		92	
ICSAB 240-333675/11	15:56	92		99		101		91		96	
CCV 240-333675/53	19:11	75		79		77		84		91	
CCB 240-333675/54	19:15	80		83		80		90		94	
MB 240-333330/1-A	19:24	91		86		88		92		96	
LCS 240-333330/2-A	19:29	87		84		86		90		93	
CCV 240-333675/65	20:04	83		85		83		89		95	
CCB 240-333675/66	20:09	89		85		85		94		97	
240-97513-2	20:13	92		88		90		87		93	
240-97513-2	20:18	92		91		94		89		94	
240-97513-3	20:22	99		95		98		98		101	
240-97513-3	20:27	101		95		97		97		100	
240-97513-4	20:31	92		92		94		86		93	
240-97513-4	20:36	87		88		92		83		90	
240-97593-2	20:45	98		91		95		95		102	
240-97593-2	20:49	98		92		95		95		101	
240-97593-3	20:53	96		90		94		88		93	
CCV 240-333675/77	20:58	92		95		95		97		102	
CCB 240-333675/78	21:02	98		97		97		101		104	
240-97593-3	21:07	98		98		102		93		98	
240-97593-8	21:11	100		98		99		96		100	
240-97593-8	21:16	100		97		99		96		100	
CCV 240-333675/82	21:20	92		93		93		93		99	
CCB 240-333675/83	21:25	100		93		95		97		100	
CCVL 240-333675/84	21:29	100		93		94		96		101	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/26/2018 End Date: 06/26/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICIS 240-333675/2	15:16	100		100		100					
STD1 240-333675/3 IC	15:21	99		99		101					
STD2 240-333675/4 IC	15:25	96		96		94					
STD3 240-333675/5 IC	15:30	95		97		91					
STD4 240-333675/6 IC	15:34	98		97		99					
ICV 240-333675/7	15:39	94		97		93					
ICB 240-333675/8	15:43	99		100		96					
ICVL 240-333675/9	15:48	97		97		98					
ICSA 240-333675/10	15:52	95		95		90					
ICSAB 240-333675/11	15:56	93		94		91					
CCV 240-333675/53	19:11	92		92		92					
CCB 240-333675/54	19:15	94		98		96					
MB 240-333330/1-A	19:24	95		95		100					
LCS 240-333330/2-A	19:29	95		98		93					
CCV 240-333675/65	20:04	96		98		95					
CCB 240-333675/66	20:09	96		100		101					
240-97513-2	20:13	99		101		91					
240-97513-2	20:18	100		102		91					
240-97513-3	20:22	103		106		102					
240-97513-3	20:27	102		104		98					
240-97513-4	20:31	95		96		85					
240-97513-4	20:36	91		94		81					
240-97593-2	20:45	103		106		100					
240-97593-2	20:49	102		106		99					
240-97593-3	20:53	100		102		91					
CCV 240-333675/77	20:58	105		106		101					
CCB 240-333675/78	21:02	105		106		105					
240-97593-3	21:07	100		102		92					
240-97593-8	21:11	102		103		95					
240-97593-8	21:16	99		102		96					
CCV 240-333675/82	21:20	99		103		94					
CCB 240-333675/83	21:25	99		101		99					
CCVL 240-333675/84	21:29	101		103		98					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/29/2018 End Date: 06/29/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-334257/3 IC	15:35	98		101		100		100		100	
STD2 240-334257/4 IC	15:39	96		101		100		97		98	
STD3 240-334257/5 IC	15:44	99		101		101		94		97	
STD4 240-334257/6 IC	15:48	97		100		99		100		100	
ICV 240-334257/7	15:53	98		101		100		98		99	
ICB 240-334257/8	15:58	100		99		100		100		99	
ICVL 240-334257/9	16:02	100		101		101		102		101	
ICSA 240-334257/10	16:07	92		97		97		88		95	
ICSAB 240-334257/11	16:11	90		97		97		90		97	
CCV 240-334257/12	16:16	95		101		100		98		100	
CCB 240-334257/13	16:20	95		99		99		98		99	
MB 240-333894/1-A	16:32	92		95		98		98		95	
LCS 240-333894/2-A	16:37	87		93		96		89		93	
240-97762-2	16:41	88		95		98		88		94	
240-97762-2 SD	16:46	96		101		103		101		101	
240-97762-2 MS	16:50	87		95		97		89		93	
240-97762-2 MSD	16:55	86		94		97		89		92	
240-97762-2 PDS	16:59	87		96		98		90		94	
240-97762-2	17:04	89		96		99		93		96	
240-97762-2 MS	17:08	85		95		98		91		93	
240-97762-2 MSD	17:13	85		95		99		93		95	
CCV 240-334257/24	17:17	99		108		110		106		106	
CCB 240-334257/25	17:22	102		105		106		106		104	
240-97762-3	17:31	90		96		100		96		96	
240-97762-3	17:35	89		97		102		97		97	
240-97762-4	17:40	88		98		101		97		97	
240-97762-4	17:44	88		98		101		99		97	
240-97762-5	17:49	94		99		112		97		97	
240-97762-5	17:53	89		98		102		97		96	
240-97762-7	17:58	89		99		101		99		100	
240-97762-7	18:02	88		97		100		98		99	
240-97762-6	18:07	86		94		99		92		95	
CCV 240-334257/36	18:11	95		103		105		101		103	
CCB 240-334257/37	18:16	96		103		105		104		104	
240-97762-6	18:20	87		95		98		94		96	
CCV 240-334257/39	18:25	95		103		106		102		103	
CCB 240-334257/40	18:29	97		103		104		105		103	
CCVL 240-334257/41	18:34	98		104		106		105		103	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97405-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 06/29/2018 End Date: 06/29/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-334257/3 IC	15:35	101		101		101					
STD2 240-334257/4 IC	15:39	100		102		98					
STD3 240-334257/5 IC	15:44	99		101		95					
STD4 240-334257/6 IC	15:48	99		99		100					
ICV 240-334257/7	15:53	100		101		98					
ICB 240-334257/8	15:58	99		100		99					
ICVL 240-334257/9	16:02	99		99		100					
ICSA 240-334257/10	16:07	100		99		96					
ICSAB 240-334257/11	16:11	100		100		96					
CCV 240-334257/12	16:16	103		102		99					
CCB 240-334257/13	16:20	99		98		99					
MB 240-333894/1-A	16:32	96		97		102					
LCS 240-333894/2-A	16:37	99		98		98					
240-97762-2	16:41	102		103		96					
240-97762-2 SD	16:46	104		104		102					
240-97762-2 MS	16:50	98		101		94					
240-97762-2 MSD	16:55	102		101		92					
240-97762-2 PDS	16:59	102		101		95					
240-97762-2	17:04	103		104		95					
240-97762-2 MS	17:08	103		103		93					
240-97762-2 MSD	17:13	105		104		94					
CCV 240-334257/24	17:17	106		108		104					
CCB 240-334257/25	17:22	102		103		102					
240-97762-3	17:31	106		105		96					
240-97762-3	17:35	106		105		96					
240-97762-4	17:40	108		108		96					
240-97762-4	17:44	107		109		96					
240-97762-5	17:49	103		103		94					
240-97762-5	17:53	100		101		94					
240-97762-7	17:58	106		108		96					
240-97762-7	18:02	105		105		95					
240-97762-6	18:07	103		103		93					
CCV 240-334257/36	18:11	105		104		100					
CCB 240-334257/37	18:16	104		102		101					
240-97762-6	18:20	103		104		93					
CCV 240-334257/39	18:25	106		103		98					
CCB 240-334257/40	18:29	101		102		99					
CCVL 240-334257/41	18:34	101		103		100					

FORM XV - IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG No.:

Analyst: VRP Batch Start Date: 07/09/2018

Reporting Units: mg/L Analytical Batch No.: 527706

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
3	CCV	11:17	Dissolved Organic Carbon	24.8	25.0	99	90-110		TOC_CCV@1000_00041
10	CCV	11:17	Dissolved Organic Carbon	25.0	25.0	100	90-110		TOC_CCV@1000_00041
11	CCB	11:17	Dissolved Organic Carbon	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 527706 Date: 07/09/2018 11:17							
9060A	MB 490-527706/4	Dissolved Organic Carbon	0.50	U	mg/L	1.0	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 527706	Date: 07/09/2018 11:17										
						LCS Source: TOC_LCS@1000_00020					
9060A	LCS 490-527706/5	Dissolved Organic Carbon	9.95		mg/L	10.0	99	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A MDL Date: 01/16/2012 09:25

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-97405-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A XMDL Date: 01/16/2012 09:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.5

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9060A

Start Date: 07/09/2018 11:17 End Date: 07/09/2018 11:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			11:17																									
ZZZZZZ			11:17																									
CCV 490-527706/3	1		11:17	X																								
MB 490-527706/4	1	D	11:17	X																								
LCS 490-527706/5	1	D	11:17	X																								
240-97593-4	1	D	11:17	X																								
240-97593-5	1	D	11:17	X																								
240-97593-6	1	D	11:17	X																								
240-97593-7	1	D	11:17	X																								
CCV 490-527706/10	1		11:17	X																								
CCB 490-527706/11	1		11:17	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 240-97405-1

SDG No.:

Batch Number: 527706 Batch Start Date: 07/09/18 11:17 Batch Analyst: Patel, Viren R

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC_CCV@1000 00041	TOC_LCS@1000 00020		
CCV 490-527706/3		9060A		50 mL	50 mL	1.25 mL			
MB 490-527706/4		9060A		50 mL	50 mL				
LCS 490-527706/5		9060A		50 mL	50 mL		0.5 mL		
240-97593-A-4	DMW-9I-062218	9060A	D	50 mL	50 mL				
240-97593-A-5	DMW-9D-062218	9060A	D	50 mL	50 mL				
240-97593-A-6	DMW-9S-062218	9060A	D	50 mL	50 mL				
240-97593-A-7	DMW-11S-062218	9060A	D	50 mL	50 mL				
CCV 490-527706/10		9060A		50 mL	50 mL	1.25 mL			
CCB 490-527706/11		9060A		50 mL	50 mL				

Batch Notes	
Pipette/Syringe/Dispenser ID	21061149 21011026 20011394

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06282018A_035.d

Lab ID: LCS 320-230993/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.92	118	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_046.d

Lab ID: LCS 320-232133/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.11	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_020.d

Lab ID: LCS 320-232586/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.40	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06292018A_034.d

Lab ID: 240-97405-3 MS Client ID: DMW-6D-0620118 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.13 J	4.78	93	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_072.d

Lab ID: 240-97593-8 MS Client ID: MSA-MW-31D-062218 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	5.17	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_023.d

Lab ID: 240-97762-2 MS Client ID: MSA-MW-50D-062618 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.17 J	5.77	112	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06282018A_041.d

Lab ID: 240-97405-3 MSD Client ID: DMW-6D-0620118 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.50	107	14	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_073.d

Lab ID: 240-97593-8 MSD Client ID: MSA-MW-31D-062218 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.20	104	0	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_024.d

Lab ID: 240-97762-2 MSD Client ID: MSA-MW-50D-062618 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.55	108	4	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_06282018A_036.d

Lab ID: INF 320-230993/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.27	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_047.d

Lab ID: INF 320-232133/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.10	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_021.d

Lab ID: INF 320-232586/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.54	111	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab File ID: Perc_06282018A_034.d Lab Sample ID: MB 320-230993/1-A

Matrix: Water Date Extracted: 06/26/2018 09:42

Instrument ID: A5 Date Analyzed: 06/28/2018 16:46

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-230993/2-A	Perc_06282018A_035.d	06/28/2018 17:00
DMW-6D-0620118	240-97405-3	Perc_06282018A_039.d	06/28/2018 17:53
DMW-6D-0620118 MSD	240-97405-3 MSD	Perc_06282018A_041.d	06/28/2018 18:20
MSA-MW-30D-0620118	240-97405-5	Perc_06282018A_044.d	06/28/2018 19:00
DMW-6D-0620118 MS	240-97405-3 MS	Perc_06292018A_034.d	06/29/2018 16:45

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-230993/1-A

Matrix: Water Lab File ID: Perc_06282018A_034.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 06/26/2018 09:42

Sample wt/vol: 4.00(mL) Date Analyzed: 06/28/2018 16:46

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 231521 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab File ID: Perc_07062018A_045.d Lab Sample ID: MB 320-232133/1-A

Matrix: Water Date Extracted: 07/02/2018 15:46

Instrument ID: A5 Date Analyzed: 07/11/2018 05:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-232133/2-A	Perc_07062018A_046.d	07/11/2018 05:25
MSA-MW-52D-062618	240-97762-7	Perc_07062018A_048.d	07/11/2018 05:52
MSA-MW-52I-062618	240-97762-6	Perc_07062018A_049.d	07/11/2018 06:05
MSA-MW-52S-062618	240-97762-5	Perc_07062018A_050.d	07/11/2018 06:18
MSA-MW-50S-062618	240-97762-4	Perc_07062018A_052.d	07/11/2018 06:45
MSA-MW-31D-062218	240-97593-8	Perc_07062018A_071.d	07/11/2018 10:58
MSA-MW-31D-062218 MS	240-97593-8 MS	Perc_07062018A_072.d	07/11/2018 11:11
MSA-MW-31D-062218 MSD	240-97593-8 MSD	Perc_07062018A_073.d	07/11/2018 11:25
MSA-MW-50I-062618	240-97762-3	Perc_07062018A_074.d	07/11/2018 11:38

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-232133/1-A

Matrix: Water Lab File ID: Perc_07062018A_045.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 05:12

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab File ID: Perc_07062018A_019.d Lab Sample ID: MB 320-232586/1-A

Matrix: Water Date Extracted: 07/05/2018 13:14

Instrument ID: A5 Date Analyzed: 07/10/2018 23:26

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-232586/2-A	Perc_07062018A_020.d	07/10/2018 23:39
MSA-MW-50D-062618	240-97762-2	Perc_07062018A_022.d	07/11/2018 00:06
MSA-MW-50D-062618 MS	240-97762-2 MS	Perc_07062018A_023.d	07/11/2018 00:19
MSA-MW-50D-062618 MSD	240-97762-2 MSD	Perc_07062018A_024.d	07/11/2018 00:32

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-232586/1-A

Matrix: Water Lab File ID: Perc_07062018A_019.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/05/2018 13:14

Sample wt/vol: 4.00(mL) Date Analyzed: 07/10/2018 23:26

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-231521/3

Matrix: Water Lab File ID: Perc_06282018A_007.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/28/2018 10:47

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 231521 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-230099/13

Matrix: Water Lab File ID: Perc_06202018B_011.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 15:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-231521/50

Matrix: Water Lab File ID: Perc_06282018A_051.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/28/2018 20:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 231521 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97405-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 320-231723/3

Matrix: Water | Lab File ID: Perc_06292018A_007.d

Analysis Method: 6850 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 06/29/2018 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 231723 | Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-231723/34

Matrix: Water Lab File ID: Perc_06292018A_038.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/29/2018 17:39

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 231723 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/3

Matrix: Water Lab File ID: Perc_07062018AX_018.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/10/2018 23:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/29

Matrix: Water Lab File ID: Perc_07062018A_044.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 04:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233402/3

Matrix: Water Lab File ID: Perc_07062018A_044X.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 04:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233402/61

Matrix: Water Lab File ID: Perc_07062018A_079.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 12:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-230099/4

Matrix: Water Lab File ID: Perc_06202018B_002.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 13:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/20/2018 15:19

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		25625186	8.94				
UPPER LIMIT		38437779	9.94				
LOWER LIMIT		12812593	7.94				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-230099/13		25609406	9.00				
ICV 320-230099/14		25363165	9.00				
CCV 320-231521/1 CCVIS		30601654	8.57				
CCV 320-231723/1 CCVIS		29064378	8.55				
CCVIS 320-233388/1		31630205	9.35				
CCVIS 320-233402/1		30797338	9.40				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Sample No.: CCV 320-231521/1 Date Analyzed: 06/28/2018 10:20

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06282018A_005. Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		30601654	8.57				
UPPER LIMIT		45902481	9.57				
LOWER LIMIT		15300827	7.57				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-231521/2		29784330	8.57				
CCB 320-231521/3		29656705	8.59				
CCV 320-231521/27		27314351	8.64				
MB 320-230993/1-A		31759642	8.57				
LCS 320-230993/2-A		23890056	8.62				
INF 320-230993/3-A		23864112	8.59				
240-97405-3	DMW-6D-0620118	24828752	8.56				
240-97405-3 MSD	DMW-6D-0620118 MSD	23910082	8.59				
CCV 320-231521/39		27674616	8.60				
240-97405-5	MSA-MW-30D-0620118	33446043	8.59				
CCV 320-231521/48		26935371	8.60				
CCVL 320-231521/49		27918183	8.62				
CCB 320-231521/50		27380793	8.59				

18OP = 18-O Perchlorate
18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Sample No.: CCV 320-231723/1 Date Analyzed: 06/29/2018 10:19

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_06292018A_005. Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		29064378	8.55				
UPPER LIMIT		43596567	9.55				
LOWER LIMIT		14532189	7.55				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-231723/2		29415605	8.55				
CCB 320-231723/3		29356898	8.55				
CCV 320-231723/27		27048813	8.67				
240-97405-3 MS	DMW-6D-0620118 MS	25859024	8.62				
CCV 320-231723/32		25812115	8.64				
CCVL 320-231723/33		26608767	8.66				
CCB 320-231723/34		27248607	8.66				

18OP = 18-O Perchlorate
18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 320-233388/1 Date Analyzed: 07/10/2018 22:46

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07062018AX_016 Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		31630205	9.35				
UPPER LIMIT		47445308	10.35				
LOWER LIMIT		15815103	8.35				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-233388/2		30889484	9.38				
CCB 320-233388/3		30633860	9.32				
MB 320-232586/1-A		28989273	9.36				
LCS 320-232586/2-A		26709981	9.33				
INF 320-232586/3-A		24305716	9.34				
240-97762-2	MSA-MW-50D-062618	27292692	9.32				
240-97762-2 MS	MSA-MW-50D-062618 MS	27396904	9.28				
240-97762-2 MSD	MSA-MW-50D-062618 MSD	25829926	9.28				
CCV 320-233388/15		29943513	9.39				
CCVL 320-233388/28		30362865	9.40				
CCB 320-233388/29		30851373	9.40				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Sample No.: CCVIS 320-233402/1 Date Analyzed: 07/11/2018 04:32

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07062018A_042X Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		30797338	9.40				
UPPER LIMIT		46196007	10.40				
LOWER LIMIT		15398669	8.40				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-233402/2		30362865	9.40				
CCB 320-233402/3		30851373	9.40				
MB 320-232133/1-A		30395534	9.39				
LCS 320-232133/2-A		29364226	9.39				
INF 320-232133/3-A		28890821	9.40				
240-97762-7	MSA-MW-52D-062618	30821191	9.36				
240-97762-6	MSA-MW-52I-062618	30825728	9.38				
240-97762-5	MSA-MW-52S-062618	31235294	9.33				
240-97762-4	MSA-MW-50S-062618	31717299	9.35				
CCV 320-233402/16		33384837	9.39				
CCV 320-233402/28		30227843	9.46				
240-97593-8	MSA-MW-31D-062218	28467602	9.44				
240-97593-8 MS	MSA-MW-31D-062218 MS	27612891	9.43				
240-97593-8 MSD	MSA-MW-31D-062218 MSD	27385591	9.46				
240-97762-3	MSA-MW-50I-062618	29452018	9.46				
CCV 320-233402/59		31430232	9.50				
CCVL 320-233402/60		30898144	9.53				
CCB 320-233402/61		31175102	9.51				

18OP = 18-O Perchlorate
18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8652 0.9623	0.8087 0.9480	0.9537 0.9795	0.9432	0.9344	Ave		0.9244				6.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	359152 12489943	535774 22937002	1245468 43723569	2476912	4819671	0.150 5.00	0.250 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: ICV 320-230099/14 Calibration Date: 06/20/2018 15:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06202018B_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9817		5.31	5.00	6.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231521/1 Calibration Date: 06/28/2018 10:20

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9502		2.06	2.00	2.8	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-231521/2 Calibration Date: 06/28/2018 10:34

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9231		0.499	0.500	-0.1	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231521/27 Calibration Date: 06/28/2018 16:06

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_031.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9736		2.11	2.00	5.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231521/39 Calibration Date: 06/28/2018 18:46

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_043.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9367		1.01	1.00	1.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231521/48 Calibration Date: 06/28/2018 20:06

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_049.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9353		2.02	2.00	1.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-231521/49 Calibration Date: 06/28/2018 20:19

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06282018A_050.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9228		0.499	0.500	-0.2	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231723/1 Calibration Date: 06/29/2018 10:19

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06292018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9400		2.03	2.00	1.7	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-231723/2 Calibration Date: 06/29/2018 10:32

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06292018A_006.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9551		0.517	0.500	3.3	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231723/27 Calibration Date: 06/29/2018 16:05

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06292018A_031.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9699		2.10	2.00	4.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-231723/32 Calibration Date: 06/29/2018 17:12

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06292018A_036.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9642		1.04	1.00	4.3	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-231723/33 Calibration Date: 06/29/2018 17:25

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06292018A_037.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9192		0.497	0.500	-0.6	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 320-233388/1 Calibration Date: 07/10/2018 22:46

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9513		2.06	2.00	2.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-233388/2 Calibration Date: 07/10/2018 22:59

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9150		0.495	0.500	-1.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-233388/15 Calibration Date: 07/11/2018 01:52

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9103		0.985	1.00	-1.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVIS 320-233402/1 Calibration Date: 07/11/2018 04:32

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_042X.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9542		2.06	2.00	3.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-233388/28 Calibration Date: 07/11/2018 04:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_043.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.8872		0.480	0.500	-4.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-233402/2 Calibration Date: 07/11/2018 04:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_043X.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.8872		0.480	0.500	-4.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-233402/16 Calibration Date: 07/11/2018 07:38

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_056.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9474		1.02	1.00	2.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-233402/28 Calibration Date: 07/11/2018 10:05

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_067.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9351		2.02	2.00	1.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCV 320-233402/59 Calibration Date: 07/11/2018 12:18

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_077.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9566		1.03	1.00	3.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Lab Sample ID: CCVL 320-233402/60 Calibration Date: 07/11/2018 12:31

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_078.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9187		0.497	0.500	-0.6	50.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 06/20/2018 13:32

Analysis Batch Number: 230099 End Date: 06/20/2018 20:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-230099/4		06/20/2018 13:32	1	Perc_06202018B_002.d	Anion HR 4.6(mm)
STD01 320-230099/5 IC		06/20/2018 13:46	1	Perc_06202018B_003.d	Anion HR 4.6(mm)
STD02 320-230099/6 IC		06/20/2018 13:59	1	Perc_06202018B_004.d	Anion HR 4.6(mm)
STD03 320-230099/7 IC		06/20/2018 14:12	1	Perc_06202018B_005.d	Anion HR 4.6(mm)
STD04 320-230099/8 IC		06/20/2018 14:26	1	Perc_06202018B_006.d	Anion HR 4.6(mm)
STD05 320-230099/9 ICISAV		06/20/2018 14:39	1	Perc_06202018B_007.d	Anion HR 4.6(mm)
STD06 320-230099/10 IC		06/20/2018 14:52	1	Perc_06202018B_008.d	Anion HR 4.6(mm)
STD07 320-230099/11 IC		06/20/2018 15:06	1	Perc_06202018B_009.d	Anion HR 4.6(mm)
STD08 320-230099/12 IC		06/20/2018 15:19	1	Perc_06202018B_010.d	Anion HR 4.6(mm)
CCB 320-230099/13		06/20/2018 15:32	1	Perc_06202018B_011.d	Anion HR 4.6(mm)
ICV 320-230099/14		06/20/2018 15:45	1	Perc_06202018B_012.d	Anion HR 4.6(mm)
CCV 320-230099/15		06/20/2018 15:59	1		Anion HR 4.6(mm)
CCVL 320-230099/16		06/20/2018 16:12	1		Anion HR 4.6(mm)
CCB 320-230099/17		06/20/2018 16:25	1		Anion HR 4.6(mm)
CCV 320-230099/30		06/20/2018 19:18	1		Anion HR 4.6(mm)
CCV 320-230099/34		06/20/2018 20:12	1		Anion HR 4.6(mm)
CCVL 320-230099/35		06/20/2018 20:25	1		Anion HR 4.6(mm)
CCB 320-230099/36		06/20/2018 20:38	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 06/28/2018 10:20

Analysis Batch Number: 231521 End Date: 06/28/2018 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-231521/1 CCVIS		06/28/2018 10:20	1	Perc_06282018A_005.d	Anion HR 4.6(mm)
CCVL 320-231521/2		06/28/2018 10:34	1	Perc_06282018A_006.d	Anion HR 4.6(mm)
CCB 320-231521/3		06/28/2018 10:47	1	Perc_06282018A_007.d	Anion HR 4.6(mm)
ZZZZZ		06/28/2018 11:00	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 11:13	1		Anion HR 4.6(mm)
INF 320-230250/3-A		06/28/2018 11:27	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 11:40	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 11:53	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 12:07	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 12:20	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 12:33	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 12:47	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 13:00	1		Anion HR 4.6(mm)
CCV 320-231521/15		06/28/2018 13:27	1		Anion HR 4.6(mm)
INF 320-230250/3-A		06/28/2018 13:40	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 13:53	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 14:07	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 14:20	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 14:33	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 14:46	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 15:00	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 15:13	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 15:26	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 15:40	1		Anion HR 4.6(mm)
CCV 320-231521/27		06/28/2018 16:06	1	Perc_06282018A_031.d	Anion HR 4.6(mm)
ZZZZZ		06/28/2018 16:20	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 16:33	1		Anion HR 4.6(mm)
MB 320-230993/1-A		06/28/2018 16:46	1	Perc_06282018A_034.d	Anion HR 4.6(mm)
LCS 320-230993/2-A		06/28/2018 17:00	1	Perc_06282018A_035.d	Anion HR 4.6(mm)
INF 320-230993/3-A		06/28/2018 17:13	1	Perc_06282018A_036.d	Anion HR 4.6(mm)
ZZZZZ		06/28/2018 17:26	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 17:40	1		Anion HR 4.6(mm)
240-97405-3		06/28/2018 17:53	1	Perc_06282018A_039.d	Anion HR 4.6(mm)
ZZZZZ		06/28/2018 18:06	1		Anion HR 4.6(mm)
240-97405-3 MSD		06/28/2018 18:20	1	Perc_06282018A_041.d	Anion HR 4.6(mm)
CCV 320-231521/39		06/28/2018 18:46	1	Perc_06282018A_043.d	Anion HR 4.6(mm)
240-97405-5		06/28/2018 19:00	1	Perc_06282018A_044.d	Anion HR 4.6(mm)
ZZZZZ		06/28/2018 19:13	1		Anion HR 4.6(mm)
ZZZZZ		06/28/2018 19:26	1		Anion HR 4.6(mm)
INF 320-230250/3-A		06/28/2018 19:40	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 06/28/2018 10:20

Analysis Batch Number: 231521 End Date: 06/28/2018 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-231521/48		06/28/2018 20:06	1	Perc_06282018A_049.d	Anion HR 4.6(mm)
CCVL 320-231521/49		06/28/2018 20:19	1	Perc_06282018A_050.d	Anion HR 4.6(mm)
CCB 320-231521/50		06/28/2018 20:33	1	Perc_06282018A_051.d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 06/29/2018 10:19

Analysis Batch Number: 231723 End Date: 06/29/2018 17:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-231723/1 CCVIS		06/29/2018 10:19	1	Perc_06292018A_005.d	Anion HR 4.6(mm)
CCVL 320-231723/2		06/29/2018 10:32	1	Perc_06292018A_006.d	Anion HR 4.6(mm)
CCB 320-231723/3		06/29/2018 10:46	1	Perc_06292018A_007.d	Anion HR 4.6(mm)
ZZZZZ		06/29/2018 10:59	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 11:12	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 11:26	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 11:39	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 11:52	10		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 12:05	10		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 12:19	10		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 12:32	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 12:45	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 12:59	100		Anion HR 4.6(mm)
CCV 320-231723/15		06/29/2018 13:25	1		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 13:39	50		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 13:52	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 14:05	100		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 14:19	50		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 14:32	50		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 14:45	20		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 14:59	50		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 15:12	100		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 15:25	50		Anion HR 4.6(mm)
ZZZZZ		06/29/2018 15:39	50		Anion HR 4.6(mm)
CCV 320-231723/27		06/29/2018 16:05	1	Perc_06292018A_031.d	Anion HR 4.6(mm)
ZZZZZ		06/29/2018 16:19	1		Anion HR 4.6(mm)
240-97405-3 MS		06/29/2018 16:45	1	Perc_06292018A_034.d	Anion HR 4.6(mm)
CCV 320-231723/32		06/29/2018 17:12	1	Perc_06292018A_036.d	Anion HR 4.6(mm)
CCVL 320-231723/33		06/29/2018 17:25	1	Perc_06292018A_037.d	Anion HR 4.6(mm)
CCB 320-231723/34		06/29/2018 17:39	1	Perc_06292018A_038.d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 07/10/2018 22:46

Analysis Batch Number: 233388 End Date: 07/11/2018 04:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-233388/1		07/10/2018 22:46	1	Perc_07062018AX 016.d	Anion HR 4.6(mm)
CCVL 320-233388/2		07/10/2018 22:59	1	Perc_07062018AX 017.d	Anion HR 4.6(mm)
CCB 320-233388/3		07/10/2018 23:12	1	Perc_07062018AX 018.d	Anion HR 4.6(mm)
MB 320-232586/1-A		07/10/2018 23:26	1	Perc_07062018A_ 019.d	Anion HR 4.6(mm)
LCS 320-232586/2-A		07/10/2018 23:39	1	Perc_07062018A_ 020.d	Anion HR 4.6(mm)
INF 320-232586/3-A		07/10/2018 23:52	1	Perc_07062018A_ 021.d	Anion HR 4.6(mm)
240-97762-2		07/11/2018 00:06	1	Perc_07062018A_ 022.d	Anion HR 4.6(mm)
240-97762-2 MS		07/11/2018 00:19	1	Perc_07062018A_ 023.d	Anion HR 4.6(mm)
240-97762-2 MSD		07/11/2018 00:32	1	Perc_07062018A_ 024.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:45	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:59	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 01:12	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 01:25	1		Anion HR 4.6(mm)
CCV 320-233388/15		07/11/2018 01:52	1	Perc_07062018A_ 030.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:05	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:32	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:45	1		Anion HR 4.6(mm)
INF 320-232794/3-A		07/11/2018 02:59	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:12	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:25	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:39	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:52	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 04:05	1		Anion HR 4.6(mm)
CCV 320-233388/27		07/11/2018 04:32	1		Anion HR 4.6(mm)
CCVL 320-233388/28		07/11/2018 04:45	1	Perc_07062018A_ 043.d	Anion HR 4.6(mm)
CCB 320-233388/29		07/11/2018 04:58	1	Perc_07062018A_ 044.d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Instrument ID: A5 Start Date: 07/11/2018 04:32

Analysis Batch Number: 233402 End Date: 07/11/2018 12:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-233402/1		07/11/2018 04:32	1	Perc_07062018A_042X.d	Anion HR 4.6(mm)
CCVL 320-233402/2		07/11/2018 04:45	1	Perc_07062018A_043X.d	Anion HR 4.6(mm)
CCB 320-233402/3		07/11/2018 04:58	1	Perc_07062018A_044X.d	Anion HR 4.6(mm)
MB 320-232133/1-A		07/11/2018 05:12	1	Perc_07062018A_045.d	Anion HR 4.6(mm)
LCS 320-232133/2-A		07/11/2018 05:25	1	Perc_07062018A_046.d	Anion HR 4.6(mm)
INF 320-232133/3-A		07/11/2018 05:38	1	Perc_07062018A_047.d	Anion HR 4.6(mm)
240-97762-7		07/11/2018 05:52	1	Perc_07062018A_048.d	Anion HR 4.6(mm)
240-97762-6		07/11/2018 06:05	1	Perc_07062018A_049.d	Anion HR 4.6(mm)
240-97762-5		07/11/2018 06:18	1	Perc_07062018A_050.d	Anion HR 4.6(mm)
240-97762-4		07/11/2018 06:45	1	Perc_07062018A_052.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 06:58	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 07:12	1		Anion HR 4.6(mm)
CCV 320-233402/16		07/11/2018 07:38	1	Perc_07062018A_056.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 07:52	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 08:05	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 08:18	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 08:31	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 08:58	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 09:11	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 09:25	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 09:38	1		Anion HR 4.6(mm)
CCV 320-233402/28		07/11/2018 10:05	1	Perc_07062018A_067.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 10:18	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 10:31	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 10:45	1		Anion HR 4.6(mm)
240-97593-8		07/11/2018 10:58	1	Perc_07062018A_071.d	Anion HR 4.6(mm)
240-97593-8 MS		07/11/2018 11:11	1	Perc_07062018A_072.d	Anion HR 4.6(mm)
240-97593-8 MSD		07/11/2018 11:25	1	Perc_07062018A_073.d	Anion HR 4.6(mm)
240-97762-3		07/11/2018 11:38	1	Perc_07062018A_074.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 11:51	1		Anion HR 4.6(mm)
CCV 320-233402/59		07/11/2018 12:18	1	Perc_07062018A_077.d	Anion HR 4.6(mm)
CCVL 320-233402/60		07/11/2018 12:31	1	Perc_07062018A_078.d	Anion HR 4.6(mm)
CCB 320-233402/61		07/11/2018 12:44	1	Perc_07062018A_079.d	Anion HR 4.6(mm)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Batch Number: 230993 Batch Start Date: 06/26/18 09:42 Batch Analyst: Rodriguez, Edson R

Batch Method: Filtration Batch End Date: 06/26/18 10:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00052		
MB 320-230993/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-230993/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-230993/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-97405-D-3	DMW-6D-0620118	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97405-D-3 MS	DMW-6D-0620118	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-97405-D-3 MSD	DMW-6D-0620118	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-97405-D-5	MSA-MW-30D-06201 18	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			

Batch Notes	
BA/AG/H Cartridge ID	170524
Batch Comment	Sample labels match client IDs ERR
Filter #2 ID	R7CA91455
Filter ID	R7PA83892
Interference check solution ID	1249895
Internal Standard ID#	1128148
Pipette/Syringe/Dispenser ID	FS007212005110/R40536G
Analyst ID - IS Reagent Drop	ERR
Analyst ID - IS Reagent Drop Witness	KMK
Analyst ID - TA Reagent Drop	ERR
Analyst ID - TA Reagent Drop Witness	KMK
Reagent Water ID	6/22/18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Batch Number: 232133 Batch Start Date: 07/02/18 15:46 Batch Analyst: Phan, Quintin C

Batch Method: Filtration Batch End Date: 07/02/18 21:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00039	LC6850SP 00052	AnalysisComment	
MB 320-232133/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-232133/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-232133/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-97762-F-7	MSA-MW-52D-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97762-F-6	MSA-MW-52I-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97762-J-5	MSA-MW-52S-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL		orange colored residue on the bottom of the sample bottle container	
240-97762-J-4	MSA-MW-50S-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97762-F-3	MSA-MW-50I-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97593-F-8	MSA-MW-31D-062218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL		orange colored residue on the bottom of the sample bottle container	
240-97593-F-8 MS	MSA-MW-31D-062218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL	orange colored residue on the bottom of the sample bottle container	
240-97593-F-8 MSD	MSA-MW-31D-062218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL	orange colored residue on the bottom of the sample bottle container	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Batch Number: 232133 Batch Start Date: 07/02/18 15:46 Batch Analyst: Phan, Quintin C

Batch Method: Filtration Batch End Date: 07/02/18 21:10

Batch Notes	
BA/AG/H Cartridge ID	170905
Batch Comment	Sample ID matches Client ID:QCP 7/2/18
Filter #2 ID	R7PA83892
Filter ID	r6sa44385
Interference check solution ID	1249895
Internal Standard ID#	LC6850IS_00039
Pipette/Syringe/Dispenser ID	R40536G
Analyst ID - IS Reagent Drop	VPM
Analyst ID - IS Reagent Drop Witness	QCP
Analyst ID - TA Reagent Drop	VPM
Analyst ID - TA Reagent Drop Witness	QCP
Reagent Water ID	07/02/2018

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97405-1

SDG No.:

Batch Number: 232586 Batch Start Date: 07/05/18 13:12 Batch Analyst: Phan, Quintin C

Batch Method: Filtration Batch End Date: 07/05/18 15:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00040	LC6850SP 00052		
MB 320-232586/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-232586/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-232586/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-97762-Q-2	MSA-MW-50D-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-97762-A-2 MS	MSA-MW-50D-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-97762-A-2 MSD	MSA-MW-50D-062618	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		

Batch Notes	
BA/AG/H Cartridge ID	170905
Batch Comment	Sample ID matches Client ID:QCP 7/2/18
Filter #2 ID	R7PA83892
Filter ID	r6sa44385
Interference check solution ID	1249895
Internal Standard ID#	LC6850IS_00039
Pipette/Syringe/Dispenser ID	R40536G
Analyst ID - IS Reagent Drop	TWL
Analyst ID - IS Reagent Drop Witness	QCP
Analyst ID - TA Reagent Drop	TWL
Analyst ID - TA Reagent Drop Witness	QCP
Reagent Water ID	07/02/2018

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 372393 Batch Start Date: 06/25/18 14:52 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 06/28/18 09:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	IngDecDate1	IngDecDate2
LCS 160-372393/1		PrecSep_0, 903.0		1000 mL	8.8087 g	8.8375 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40
LCSD 160-372393/2		PrecSep_0, 903.0		1000 mL	8.7830 g	8.8139 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40
240-97405-H-2	DMW-6I-0620118	PrecSep_0, 903.0	T	999.40 mL	8.8470 g	8.8774 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40
240-97405-J-3	DMW-6D-0620118	PrecSep_0, 903.0	T	999.79 mL	8.7725 g	8.8026 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40
240-97405-L-4	DMW-6S-0620118	PrecSep_0, 903.0	T	1000.02 mL	8.7413 g	8.7699 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40
MB 160-372393/7		PrecSep_0, 903.0		1000 mL	8.7807 g	8.8095 g	0.0339 g	06/26/2018 19:30	06/28/2018 07:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	NativeMassBa	Ba Carrier 00037	Ra-226 00027			
LCS 160-372393/1		PrecSep_0, 903.0		0 g	1 mL	1 mL			
LCSD 160-372393/2		PrecSep_0, 903.0		0 g	1 mL	1 mL			
240-97405-H-2	DMW-6I-0620118	PrecSep_0, 903.0	T	0 g	1 mL				
240-97405-J-3	DMW-6D-0620118	PrecSep_0, 903.0	T	0 g	1 mL				
240-97405-L-4	DMW-6S-0620118	PrecSep_0, 903.0	T	0 g	1 mL				
MB 160-372393/7		PrecSep_0, 903.0		0 g	1 mL				

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	IN-BME, Out JTR
Pipette ID	RAD112, SEP009
Analyst ID - Reagent Drop Witness	SJC per JLC
Analyst ID - Reagent Drop	JLC
SOP Number	ST-RC-0040, ST-RC-0002

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 372393 Batch Start Date: 06/25/18 14:52 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 06/28/18 09:45

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 373622 Batch Start Date: 07/02/18 14:18 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/05/18 18:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	IngDecDate1	IngDecDate2
LCS 160-373622/1		PrecSep_0, 903.0		1000 mL	8.7719 g	8.8013 g	0.0339 g	07/03/2018 13:00	07/05/2018 13:05
LCSD 160-373622/2		PrecSep_0, 903.0		1000 mL	8.8171 g	8.8472 g	0.0339 g	07/03/2018 13:00	07/05/2018 13:05
240-97513-J-2	DMW-3I-062118	PrecSep_0, 903.0	T	1000.09 mL	8.8011 g	8.8251 g	0.0339 g	07/03/2018 13:00	07/05/2018 13:05
240-97513-H-3	DMW-3D-062118	PrecSep_0, 903.0	T	1000.06 mL	8.8317 g	8.8594 g	0.0339 g	07/03/2018 13:00	07/05/2018 13:05
MB 160-373622/5		PrecSep_0, 903.0		1000 mL	8.8555 g	8.8846 g	0.0339 g	07/03/2018 13:00	07/05/2018 13:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	NativeMassBa	Ba Carrier 00037	Ra-226 00027			
LCS 160-373622/1		PrecSep_0, 903.0		0 g	1 mL	1 mL			
LCSD 160-373622/2		PrecSep_0, 903.0		0 g	1 mL	1 mL			
240-97513-J-2	DMW-3I-062118	PrecSep_0, 903.0	T	0 g	1 mL				
240-97513-H-3	DMW-3D-062118	PrecSep_0, 903.0	T	0 g	1 mL				
MB 160-373622/5		PrecSep_0, 903.0		0 g	1 mL				

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-BME
Pipette ID	RAD112, SEP009
Analyst ID - Reagent Drop Witness	CLP per JLC
Analyst ID - Reagent Drop	JLC
SOP Number	ST-RC-0040, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 372384 Batch Start Date: 06/25/18 13:55 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/02/18 14:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	Y_TareWt	Y_GrossWt
LCS 160-372384/1		PrecSep_0, 904.0		1000 mL	8.7587 g	8.7921 g	0.0339 g	8.7813 g	8.8046 g
LCSD 160-372384/2		PrecSep_0, 904.0		1000 mL	8.8911 g	8.9238 g	0.0339 g	8.8221 g	8.8448 g
240-97405-J-2	DMW-6I-0620118	PrecSep_0, 904.0	T	1000.03 mL	8.7643 g	8.7967 g	0.0339 g	8.8157 g	8.8391 g
240-97405-I-3	DMW-6D-0620118	PrecSep_0, 904.0	T	999.90 mL	8.8225 g	8.8507 g	0.0339 g	8.7961 g	8.8201 g
240-97405-M-4	DMW-6S-0620118	PrecSep_0, 904.0	T	999.58 mL	8.8306 g	8.8611 g	0.0339 g	8.8112 g	8.8351 g
MB 160-372384/11		PrecSep_0, 904.0		1000 mL	8.7697 g	8.8040 g	0.0339 g	8.7878 g	8.8119 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Y_Mass	IngDecDate1	IngDecDate2	NativeMassBa	NativeMassY	Ba Carrier 00037
LCS 160-372384/1		PrecSep_0, 904.0		0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL
LCSD 160-372384/2		PrecSep_0, 904.0		0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL
240-97405-J-2	DMW-6I-0620118	PrecSep_0, 904.0	T	0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL
240-97405-I-3	DMW-6D-0620118	PrecSep_0, 904.0	T	0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL
240-97405-M-4	DMW-6S-0620118	PrecSep_0, 904.0	T	0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL
MB 160-372384/11		PrecSep_0, 904.0		0.02675 g	06/26/2018 19:30	07/02/2018 11:00	0 g	0 g	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Ra-228 00026	Y Carrier 00031				
LCS 160-372384/1		PrecSep_0, 904.0		0.1 mL	0.2 mL				
LCSD 160-372384/2		PrecSep_0, 904.0		0.1 mL	0.2 mL				
240-97405-J-2	DMW-6I-0620118	PrecSep_0, 904.0	T		0.2 mL				
240-97405-I-3	DMW-6D-0620118	PrecSep_0, 904.0	T		0.2 mL				
240-97405-M-4	DMW-6S-0620118	PrecSep_0, 904.0	T		0.2 mL				
MB 160-372384/11		PrecSep_0, 904.0			0.2 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 372384 Batch Start Date: 06/25/18 13:55 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/02/18 14:05

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	IN-BME: OUT-BME
Pipette ID	RAD112, SEP009, SEP005
Analyst ID - Reagent Drop Witness	SJC per JLC, KNF per BME
Analyst ID - Reagent Drop	JLC, BME
SOP Number	ST-RC-0041, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 373621 Batch Start Date: 07/02/18 14:16 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/06/18 14:56

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	Y_TareWt	Y_GrossWt
LCS 160-373621/1		PrecSep_0, 904.0		1000 mL	8.7768 g	8.8109 g	0.0339 g	8.8453 g	8.8681 g
LCSD 160-373621/2		PrecSep_0, 904.0		1000 mL	8.7753 g	8.8113 g	0.0339 g	8.8451 g	8.8673 g
240-97513-H-2	DMW-3I-062118	PrecSep_0, 904.0	T	1000.38 mL	8.8136 g	8.8452 g	0.0339 g	8.8035 g	8.8262 g
240-97513-J-3	DMW-3D-062118	PrecSep_0, 904.0	T	1000.30 mL	8.8138 g	8.8433 g	0.0339 g	8.7554 g	8.7774 g
MB 160-373621/5		PrecSep_0, 904.0		1000 mL	8.7659 g	8.8008 g	0.0339 g	8.7901 g	8.8107 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Y_Mass	IngDecDate1	IngDecDate2	NativeMassBa	NativeMassY	Ba Carrier 00037
LCS 160-373621/1		PrecSep_0, 904.0		0.02675 g	07/03/2018 13:00	07/06/2018 12:15	0 g	0 g	1 mL
LCSD 160-373621/2		PrecSep_0, 904.0		0.02675 g	07/03/2018 13:00	07/06/2018 12:15	0 g	0 g	1 mL
240-97513-H-2	DMW-3I-062118	PrecSep_0, 904.0	T	0.02675 g	07/03/2018 13:00	07/06/2018 12:15	0 g	0 g	1 mL
240-97513-J-3	DMW-3D-062118	PrecSep_0, 904.0	T	0.02675 g	07/03/2018 13:00	07/06/2018 12:15	0 g	0 g	1 mL
MB 160-373621/5		PrecSep_0, 904.0		0.02675 g	07/03/2018 13:00	07/06/2018 12:15	0 g	0 g	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Ra-228 00026	Y Carrier 00031				
LCS 160-373621/1		PrecSep_0, 904.0		0.1 mL	0.2 mL				
LCSD 160-373621/2		PrecSep_0, 904.0		0.1 mL	0.2 mL				
240-97513-H-2	DMW-3I-062118	PrecSep_0, 904.0	T		0.2 mL				
240-97513-J-3	DMW-3D-062118	PrecSep_0, 904.0	T		0.2 mL				
MB 160-373621/5		PrecSep_0, 904.0			0.2 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-97405-1

SDG No.:

Batch Number: 373621 Batch Start Date: 07/02/18 14:16 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/06/18 14:56

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-BME
Pipette ID	RAD112, SEP009, SEP005
Analyst ID - Reagent Drop Witness	CLP per JLC, JS per CPR
Analyst ID - Reagent Drop	JLC, CPR
SOP Number	ST-RC-0041, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Daily Checks

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Sunday, July 01, 2018

Instrument: ***Orange***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:34 AM	**Efficiency**	13522.01	13598.65	407.96	-76.64	Pass					
	Background										
	Crosstalk	4838.500	4590.975	94.057	247.525	**WARNING**					
4:00 AM	**Efficiency**										
	Background	0.065	0.042	0.016	0.023	Pass	0.470	0.418	0.058	0.053	Pass
	Crosstalk										
Detector 10											
12:30 AM	**Efficiency**						50741.65	50054.68	1501.64	686.97	Pass
	Background										
	Crosstalk						2.532	0.125	0.222	2.407	NA
12:34 AM	**Efficiency**	11367.71	11708.33	351.25	-340.62	Pass					
	Background										
	Crosstalk	7459.500	7201.325	145.497	258.175	Pass					
4:00 AM	**Efficiency**										
	Background	0.075	0.064	0.015	0.011	Pass	0.390	0.462	0.083	-0.072	Pass
	Crosstalk										
Detector 11											
12:30 AM	**Efficiency**						59786.76	59142.43	1774.27	644.33	Pass
	Background										
	Crosstalk						5.064	2.650	1.204	2.414	NA
12:34 AM	**Efficiency**	13219.38	13398.55	401.96	-179.17	Pass					
	Background										
	Crosstalk	4490.000	4216.575	69.064	273.425	**DOEF**					
4:00 AM	**Efficiency**										
	Background	0.130	0.067	0.018	0.063	**FAIL**	0.770	0.666	0.099	0.104	Pass
	Crosstalk										
9:26 AM	**Efficiency**										
	Background	0.120	0.067	0.018	0.053	Pass	0.560	0.666	0.099	-0.106	Pass
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Sunday, July 01, 2018

Instrument: ***Orange***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 12											
12:30 AM	**Efficiency**						56906.22	56886.15	1706.58	20.07	Pass
	Background										
	Crosstalk						10.129	2.475	1.082	7.654	NA
12:34 AM	**Efficiency**	16875.06	16917.10	507.51	-42.04	Pass					
	Background										
	Crosstalk	5856.000	5738.500	102.997	117.500	Pass					
4:00 AM	**Efficiency**										
	Background	0.070	0.064	0.022	0.006	Pass	0.485	0.563	0.052	-0.078	Pass
	Crosstalk										
Detector 13											
12:30 AM	**Efficiency**						55673.38	55204.43	1656.13	468.95	Pass
	Background										
	Crosstalk						35.451	22.150	5.535	13.301	NA
12:35 AM	**Efficiency**	16989.63	17051.55	511.55	-61.92	Pass					
	Background										
	Crosstalk	5485.000	5209.900	107.080	275.100	**WARNING**					
4:00 AM	**Efficiency**										
	Background	0.085	0.094	0.021	-0.009	Pass	0.655	0.518	0.089	0.137	Pass
	Crosstalk										
Detector 14											
12:30 AM	**Efficiency**						50917.07	51681.73	1550.45	-764.66	Pass
	Background										
	Crosstalk						77.449	51.775	17.970	25.674	NA
12:35 AM	**Efficiency**	15217.02	15537.73	466.13	-320.70	Pass					
	Background										
	Crosstalk	4709.000	4533.500	133.093	175.500	Pass					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Monday, July 02, 2018

Instrument: ***Orange***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 2											
12:07 AM	**Efficiency**						49701.20	49918.95	1497.57	-217.75	Pass
	Background										
	Crosstalk						8.073	611.900	348.104	-603.827	NA
12:15 AM	**Efficiency**	13702.25	14303.78	429.11	-601.53	**FAIL**					
	Background										
	Crosstalk	4696.000	4075.275	55.409	620.725	**DOEF**					
1:17 AM	**Efficiency**	13626.70	14303.78	429.11	-677.07	**FAIL**					
	Background										
	Crosstalk	4742.500	4075.275	55.409	667.225	**DOEF**					
4:44 AM	**Efficiency**										
	Background	0.225	0.091	0.032	0.135	**FAIL**	0.555	0.408	0.053	0.147	Pass
	Crosstalk										
Detector 3											
12:07 AM	**Efficiency**						58652.90	59069.20	1772.08	-416.30	Pass
	Background										
	Crosstalk						7.064	545.400	417.832	-538.336	NA
12:15 AM	**Efficiency**	12923.25	13346.88	400.41	-423.62	**FAIL**					
	Background										
	Crosstalk	4337.500	4042.275	43.117	295.225	**DOEF**					
1:17 AM	**Efficiency**	12895.23	13346.88	400.41	-451.64	**FAIL**					
	Background										
	Crosstalk	4441.000	4042.275	43.117	398.725	**DOEF**					
4:44 AM	**Efficiency**										
	Background	0.275	0.104	0.021	0.171	**FAIL**	0.645	0.601	0.097	0.044	Pass
	Crosstalk										
Detector 4											

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Monday, July 02, 2018

Instrument: Orange

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:07 AM	**Efficiency**						55868.31	55962.22	1678.87	-93.91	Pass
	Background										
	Crosstalk						0.000	0.320	0.284	-0.320	NA
12:19 AM	**Efficiency**	15875.64	16076.75	482.30	-201.11	Pass					
	Background										
	Crosstalk	6271.000	6120.950	71.073	150.050	**WARNING**					
4:44 AM	**Efficiency**										
	Background	0.125	0.074	0.013	0.051	**FAIL**	0.490	0.431	0.061	0.059	Pass
	Crosstalk										
8:50 AM	**Efficiency**										
	Background	0.085	0.074	0.013	0.011	Pass	0.480	0.431	0.061	0.049	Pass
	Crosstalk										
Detector 5											
12:07 AM	**Efficiency**						53936.44	54077.08	1622.31	-140.63	Pass
	Background										
	Crosstalk						4.037	0.250	0.344	3.787	NA
12:19 AM	**Efficiency**	16147.81	16418.00	492.54	-270.19	Pass					
	Background										
	Crosstalk	6429.500	6233.125	41.144	196.375	**DOEF**					
4:44 AM	**Efficiency**										
	Background	0.225	0.076	0.014	0.149	**FAIL**	0.625	0.444	0.110	0.181	Pass
	Crosstalk										
8:50 AM	**Efficiency**										
	Background	0.145	0.076	0.014	0.069	**FAIL**	0.570	0.444	0.110	0.126	Pass
	Crosstalk										
Detector 6											
12:07 AM	**Efficiency**						48153.31	49761.08	1492.83	-1607.77	**FAIL**
	Background										
	Crosstalk						1.509	0.175	0.294	1.334	NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

APPROVED
By Rachel Mueller at 5:20 pm, Jul 06, 2018

Friday, July 06, 2018

Instrument: ***Orange***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 0											
12:07 AM	**Efficiency**						48984.65	49935.03	1498.05	-950.38	Pass
	Background										
	Crosstalk						25.236	655.525	273.412	-630.289	NA
12:16 AM	**Efficiency**	12365.45	12918.08	387.54	-552.63	**FAIL**					
	Background										
	Crosstalk	4280.500	4183.775	91.802	96.725	Pass					
12:59 AM	**Efficiency**	12160.34	12918.08	387.54	-757.73	**FAIL**					
	Background										
	Crosstalk	4204.000	4183.775	91.802	20.225	Pass					
4:34 AM	**Efficiency**										
	Background	0.265	0.052	0.020	0.213	**FAIL**	0.900	0.485	0.136	0.416	**FAIL**
	Crosstalk										
11:16 AM	**Efficiency**										
	Background	0.045	0.052	0.020	-0.007	Pass	0.500	0.485	0.136	0.016	Pass
	Crosstalk										
Detector 1											
12:07 AM	**Efficiency**						47718.91	48521.48	1455.64	-802.56	Pass
	Background										
	Crosstalk						5.047	338.750	244.604	-333.703	NA
12:16 AM	**Efficiency**	13313.23	13769.70	413.09	-456.47	**FAIL**					
	Background										
	Crosstalk	4562.000	3919.350	34.830	642.650	**DOEF**					
12:59 AM	**Efficiency**	13237.69	13769.70	413.09	-532.01	**FAIL**					
	Background										
	Crosstalk	4307.000	3919.350	34.830	387.650	**DOEF**					
4:34 AM	**Efficiency**										
	Background	0.205	0.077	0.029	0.129	**FAIL**	0.515	0.382	0.064	0.133	Pass
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Friday, July 06, 2018

Instrument: ***Orange***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 2											
12:07 AM	**Efficiency**						49455.39	49918.95	1497.57	-463.56	Pass
	Background										
	Crosstalk						7.571	611.900	348.104	-604.329	NA
12:16 AM	**Efficiency**	13474.84	14303.78	429.11	-828.93	**FAIL**					
	Background										
	Crosstalk	4639.500	4075.275	55.409	564.225	**DOEF**					
12:59 AM	**Efficiency**	13635.95	14303.78	429.11	-667.83	**FAIL**					
	Background										
	Crosstalk	4676.500	4075.275	55.409	601.225	**DOEF**					
Detector 3											
12:07 AM	**Efficiency**						58904.04	59069.20	1772.08	-165.16	Pass
	Background										
	Crosstalk						6.561	545.400	417.832	-538.839	NA
12:16 AM	**Efficiency**	12814.91	13346.88	400.41	-531.97	**FAIL**					
	Background										
	Crosstalk	4412.500	4042.275	43.117	370.225	**DOEF**					
12:59 AM	**Efficiency**	12783.39	13346.88	400.41	-563.49	**FAIL**					
	Background										
	Crosstalk	4331.000	4042.275	43.117	288.725	**DOEF**					
4:34 AM	**Efficiency**										
	Background	0.230	0.104	0.021	0.126	**FAIL**	0.930	0.601	0.097	0.329	**FAIL**
	Crosstalk										
11:16 AM	**Efficiency**										
	Background	0.190	0.104	0.021	0.086	**FAIL**	0.520	0.601	0.097	-0.081	Pass
	Crosstalk										
Detector 4											

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 05, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:22 AM	**Efficiency**						56870.97	56940.95	1708.23	-69.98	Pass
	Background										
	Crosstalk						2.019	1.075	0.816	0.944	NA
4:45 AM	**Efficiency**										
	Background	0.115	0.128	0.018	-0.013	Pass	0.525	0.512	0.060	0.013	Pass
	Crosstalk										
Detector 5											
12:07 AM	**Efficiency**	16489.81	16603.10	498.09	-113.29	Pass					
	Background										
	Crosstalk	6151.000	5630.275	57.623	520.725	**DOEF**					
12:22 AM	**Efficiency**						55009.98	54659.90	1639.80	350.08	Pass
	Background										
	Crosstalk						2.533	0.750	0.769	1.783	NA
4:45 AM	**Efficiency**										
	Background	0.170	0.100	0.026	0.070	Pass	0.500	0.432	0.060	0.068	Pass
	Crosstalk										
Detector 6											
12:07 AM	**Efficiency**	15039.41	15352.98	460.59	-313.57	Pass					
	Background										
	Crosstalk	5851.000	5483.125	60.864	367.875	**DOEF**					
12:22 AM	**Efficiency**						51754.10	52013.25	1560.40	-259.15	Pass
	Background										
	Crosstalk						2.533	1.125	0.793	1.408	NA
4:45 AM	**Efficiency**										
	Background	0.135	0.079	0.015	0.056	**FAIL**	0.690	0.523	0.073	0.168	Pass
	Crosstalk										
12:11 PM	**Efficiency**										
	Background	0.065	0.079	0.015	-0.014	Pass	0.790	0.523	0.073	0.268	**FAIL**
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 05, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 7											
12:07 AM	**Efficiency**	15001.38	15280.13	458.40	-278.74	Pass					
	Background										
	Crosstalk	5845.000	5238.075	59.071	606.925	**DOEF**					
12:22 AM	**Efficiency**						44985.82	45069.13	1352.07	-83.31	Pass
	Background										
	Crosstalk						3.546	0.575	0.591	2.971	NA
4:45 AM	**Efficiency**										
	Background	0.105	0.105	0.027	0.001	Pass	0.775	0.475	0.061	0.300	**FAIL**
	Crosstalk										
12:11 PM	**Efficiency**										
	Background	0.080	0.105	0.027	-0.025	Pass	0.335	0.475	0.061	-0.140	Pass
	Crosstalk										
Detector 8											
12:10 AM	**Efficiency**	12396.75	12654.18	379.63	-257.43	Pass					
	Background										
	Crosstalk	4246.500	3940.575	65.191	305.925	**DOEF**					
12:27 AM	**Efficiency**						50572.73	50025.35	1500.76	547.38	Pass
	Background										
	Crosstalk						30.397	27.925	7.162	2.472	NA
4:45 AM	**Efficiency**										
	Background	0.135	0.074	0.016	0.061	**FAIL**	0.580	0.408	0.057	0.173	**FAIL**
	Crosstalk										
12:11 PM	**Efficiency**										
	Background	0.080	0.074	0.016	0.006	Pass	0.375	0.408	0.057	-0.033	Pass
	Crosstalk										
Detector 9											

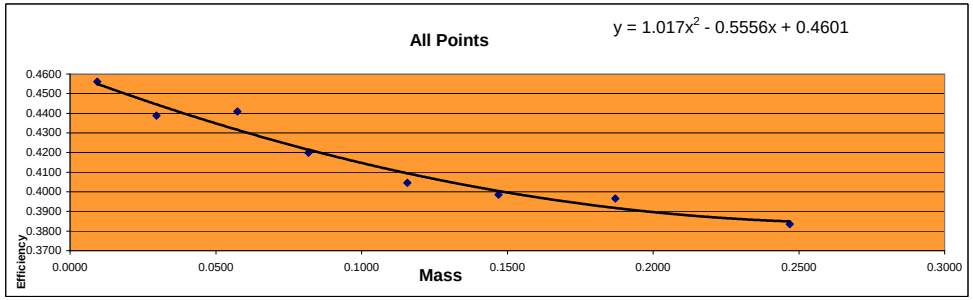
Alpha Beta Calibrations

Curve is for Gross Beta
Strontium 90
and
Total Strontium

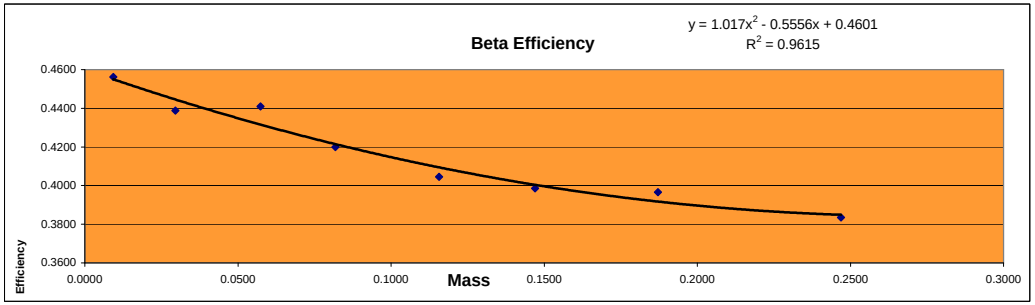
Orange 0

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
0	B1	1/23/2013 14:44	0.0093	5	94846	18969.200	0.4561	1mL
0	B2	1/23/2013 15:46	0.0296	5	91244	18248.800	0.4388	1mL
0	B3	1/23/2013 15:37	0.0574	5	91691	18338.200	0.4409	1mL
0	B4	1/23/2013 15:26	0.0818	5	87307	17461.400	0.4199	1mL
0	B5	1/23/2013 15:19	0.1157	5	84120	16824.000	0.4045	1mL
0	B6	1/23/2013 15:09	0.1470	5	82888	16577.600	0.3986	1mL
0	B7	1/23/2013 15:01	0.1871	5	82469	16493.800	0.3966	1mL
0	B8	1/23/2013 14:53	0.2469	5	79762	15952.400	0.3836	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4561	0.4550	0.24%
0.0296	0.4388	0.4445	-1.29%
0.0574	0.4409	0.4316	2.17%
0.0818	0.4199	0.4215	-0.38%
0.1157	0.4045	0.4094	-1.20%
0.1470	0.3986	0.4004	-0.45%
0.1871	0.3966	0.3917	1.24%
0.2469	0.3836	0.3849	-0.35%



Mass	Efficiency
0.0093	0.4561
0.0296	0.4388
0.0574	0.4409
0.0818	0.4199
0.1157	0.4045
0.1470	0.3986
0.1871	0.3966
0.2469	0.3836



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

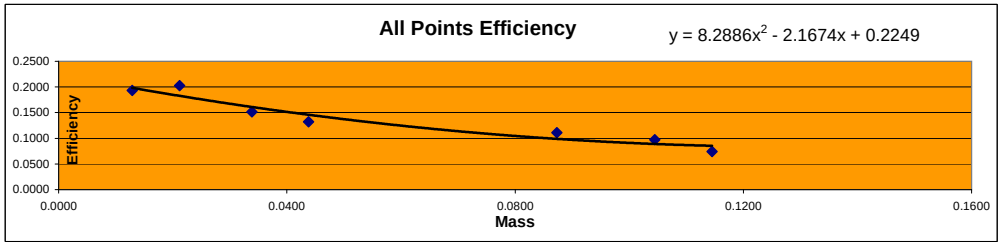
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	1/23/2013
Elapsed Time:	1224.000 days
Half Life:	10409.625 days
Exponential Term:	0.92173026
Corrected Activity:	20794.2346 dpm/mL
Decay Activity (Sr/Y-90)	41588.4692 dpm

Curve is for Gross Alpha

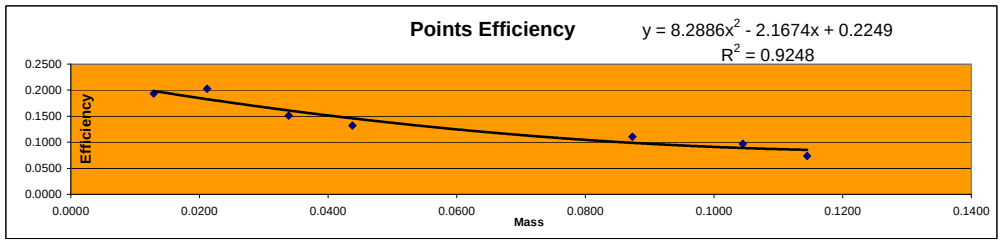
Orange 0

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
0	ICABT-51465;A1	12/2/2015 11:00	40	18384	459.600	2374.5	0.1936	1mL	0.0129
0	ICABT-51465;A2	12/2/2015 19:20	40	19241	481.025	2374.5	0.2026	1mL	0.0212
0	ICABT-51465;A3	12/2/2015 17:07	40	14368	359.200	2374.5	0.1513	1mL	0.0339
0	ICABT-51465;A4	12/2/2015 16:12	40	12524	313.100	2374.5	0.1319	1mL	0.0438
0	ICABT-51465;A6	12/2/2015 14:12	40	21054	526.350	4749.0	0.1108	2mL	0.0873
0	ICABT-51465;A7	12/2/2015 13:20	40	18456	461.400	4749.0	0.0972	2mL	0.1045
0	ICABT-51465;A8	12/2/2015 12:28	40	14043	351.075	4749.0	0.0739	2mL	0.1145

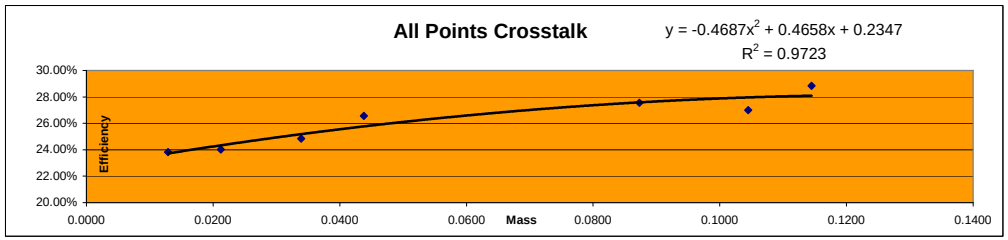
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1936	0.1983	-2.40%
0.0212	0.2026	0.1827	10.90%
0.0339	0.1513	0.1610	-6.01%
0.0438	0.1319	0.1459	-9.60%
0.0873	0.1108	0.0989	12.12%
0.1045	0.0972	0.0889	9.26%
0.1145	0.0739	0.0854	-13.43%



Mass	Efficiency
0.0129	0.1936
0.0212	0.2026
0.0339	0.1513
0.0438	0.1319
0.0873	0.1108
0.1045	0.0972
0.1145	0.0739



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
0	ICABT-51465;A1	0.0129	40	18384	5751	459.60	143.78	23.83%	Min 23.83%
0	ICABT-51465;A2	0.0212	40	19241	6080	481.03	152.00	24.01%	
0	ICABT-51465;A3	0.0339	40	14368	4751	359.20	118.78	24.85%	
0	ICABT-51465;A4	0.0438	40	12524	4532	313.10	113.30	26.57%	Max 28.83%
0	ICABT-51465;A6	0.0873	40	21054	8009	526.35	200.23	27.56%	
0	ICABT-51465;A7	0.1045	40	18456	6828	461.40	170.70	27.01%	
0	ICABT-51465;A8	0.1145	40	14043	5688	351.08	142.20	28.83%	Mean 26.09%



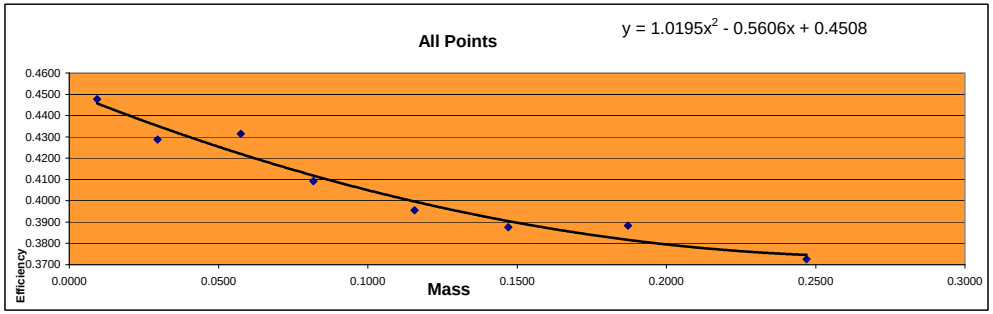
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

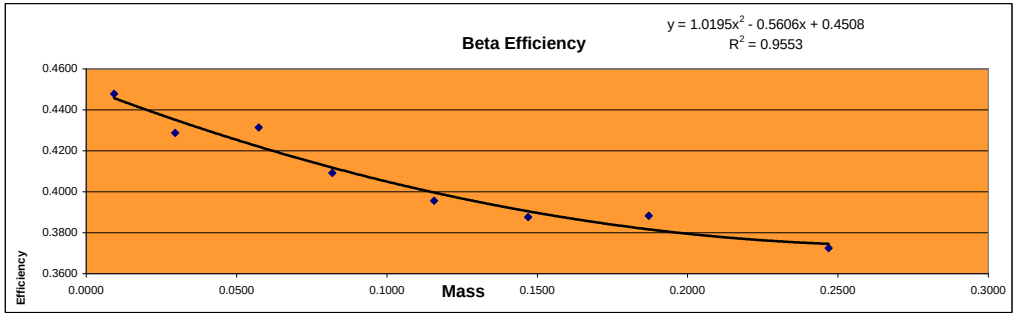
Orange 1

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
1	B1	1/23/2013 14:53	0.0093	5	93104	18620.800	0.4477	1mL
1	B2	1/23/2013 14:44	0.0296	5	89150	17830.000	0.4287	1mL
1	B3	1/23/2013 15:46	0.0574	5	89704	17940.800	0.4314	1mL
1	B4	1/23/2013 15:37	0.0818	5	85084	17016.800	0.4092	1mL
1	B5	1/23/2013 15:26	0.1157	5	82259	16451.800	0.3956	1mL
1	B6	1/23/2013 15:19	0.1470	5	80595	16119.000	0.3876	1mL
1	B7	1/23/2013 15:09	0.1871	5	80750	16150.000	0.3883	1mL
1	B8	1/23/2013 15:01	0.2469	5	77468	15493.600	0.3725	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4477	0.4457	0.46%
0.0296	0.4287	0.4351	-1.47%
0.0574	0.4314	0.4220	2.23%
0.0818	0.4092	0.4118	-0.63%
0.1157	0.3956	0.3996	-1.00%
0.1470	0.3876	0.3904	-0.73%
0.1871	0.3883	0.3816	1.76%
0.2469	0.3725	0.3745	-0.53%



Mass	Efficiency
0.0093	0.4477
0.0296	0.4287
0.0574	0.4314
0.0818	0.4092
0.1157	0.3956
0.1470	0.3876
0.1871	0.3883
0.2469	0.3725



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

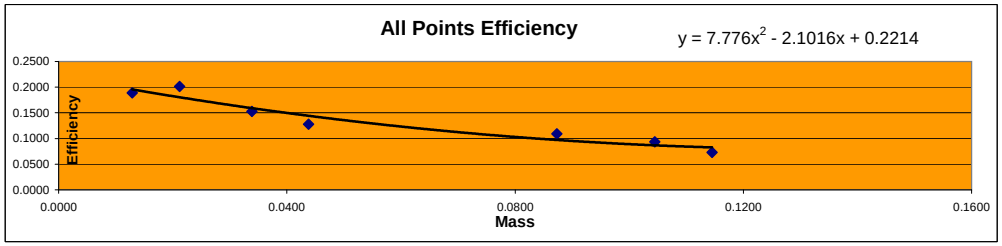
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	1/23/2013
Elapsed Time:	1224.000 days
Half Life:	10409.625 days
Exponential Term:	0.921730256
Corrected Activity:	20794.23458 dpm/mL
Decay Activity (Sr/Y-90)	41588.46916 dpm

Curve is for Gross Alpha

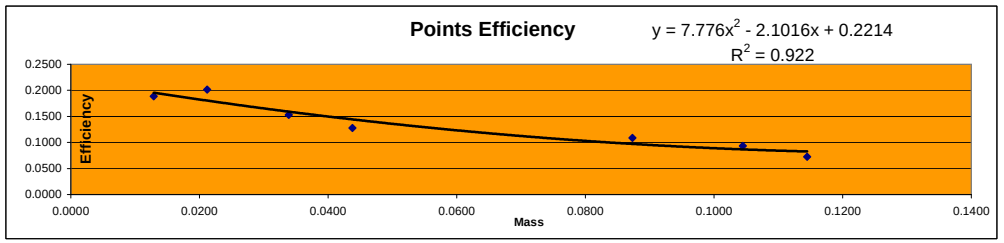
Orange 1

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
1	ICABT-51465;A1	12/2/2015 12:28	40	17919	447.975	2374.5	0.1887	1mL	0.0129
1	ICABT-51465;A2	12/2/2015 11:01	40	19149	478.725	2374.5	0.2016	1mL	0.0212
1	ICABT-51465;A3	12/2/2015 19:20	40	14501	362.525	2374.5	0.1527	1mL	0.0339
1	ICABT-51465;A4	12/2/2015 17:07	40	12156	303.900	2374.5	0.1280	1mL	0.0438
1	ICABT-51465;A6	12/2/2015 15:06	40	20708	517.700	4749.0	0.1090	2mL	0.0873
1	ICABT-51465;A7	12/2/2015 14:12	40	17722	443.050	4749.0	0.0933	2mL	0.1045
1	ICABT-51465;A8	12/2/2015 13:20	40	13800	345.000	4749.0	0.0726	2mL	0.1145

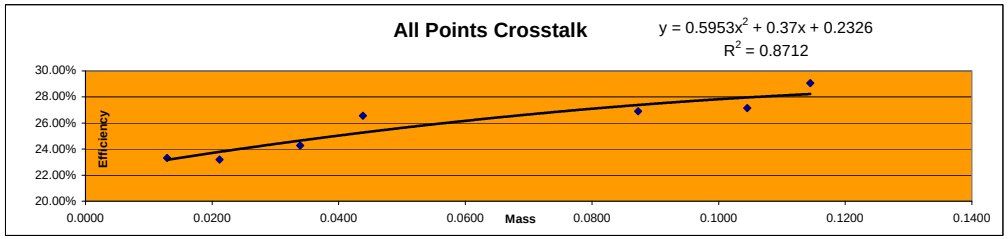
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1887	0.1956	-3.54%
0.0212	0.2016	0.1803	11.79%
0.0339	0.1527	0.1591	-4.03%
0.0438	0.1280	0.1443	-11.29%
0.0873	0.1090	0.0972	12.16%
0.1045	0.0933	0.0867	7.61%
0.1145	0.0726	0.0827	-12.17%



Mass	Efficiency
0.0129	0.1887
0.0212	0.2016
0.0339	0.1527
0.0438	0.1280
0.0873	0.1090
0.1045	0.0933
0.1145	0.0726



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
1	ICABT-51465;A1	0.0129	40	17919	5452	447.98	136.30	23.33%	Min
1	ICABT-51465;A2	0.0212	40	19149	5786	478.73	144.65	23.20%	23.20%
1	ICABT-51465;A3	0.0339	40	14501	4647	362.53	116.18	24.27%	
1	ICABT-51465;A4	0.0438	40	12156	4398	303.90	109.95	26.57%	Max
1	ICABT-51465;A6	0.0873	40	20708	7621	517.70	190.53	26.90%	29.06%
1	ICABT-51465;A7	0.1045	40	17722	6602	443.05	165.05	27.14%	
1	ICABT-51465;A8	0.1145	40	13800	5652	345.00	141.30	29.06%	Mean
									25.78%



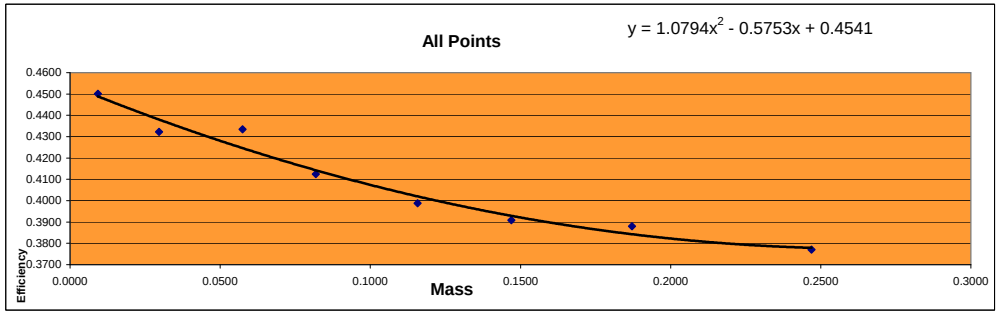
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

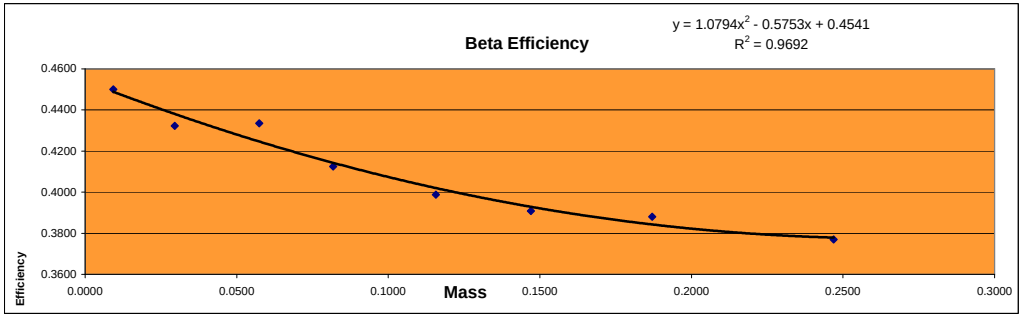
Orange 2

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
2	B1	1/23/2013 15:00	0.0093	5	93591	18718.200	0.4501	1mL
2	B2	1/23/2013 14:53	0.0296	5	89882	17976.400	0.4322	1mL
2	B3	1/23/2013 14:45	0.0574	5	90138	18027.600	0.4335	1mL
2	B4	1/23/2013 15:46	0.0818	5	85780	17156.000	0.4125	1mL
2	B5	1/23/2013 15:37	0.1157	5	82932	16586.400	0.3988	1mL
2	B6	1/23/2013 15:27	0.1470	5	81262	16252.400	0.3908	1mL
2	B7	1/23/2013 15:19	0.1871	5	80689	16137.800	0.3880	1mL
2	B8	1/23/2013 15:09	0.2469	5	78390	15678.000	0.3770	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4501	0.4488	0.28%
0.0296	0.4322	0.4380	-1.32%
0.0574	0.4335	0.4246	2.08%
0.0818	0.4125	0.4143	-0.42%
0.1157	0.3988	0.4020	-0.79%
0.1470	0.3908	0.3929	-0.53%
0.1871	0.3880	0.3842	0.99%
0.2469	0.3770	0.3779	-0.23%



Mass	Efficiency
0.0093	0.4501
0.0296	0.4322
0.0574	0.4335
0.0818	0.4125
0.1157	0.3988
0.1470	0.3908
0.1871	0.3880
0.2469	0.3770



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

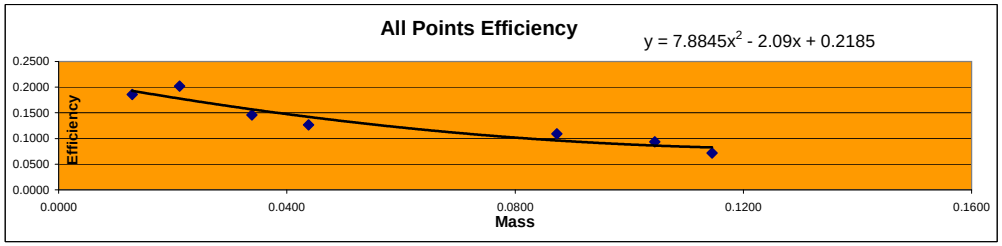
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	1/23/2013	
Elapsed Time:	1224.000	days
Half Life:	10409.625	days
Exponential Term:	0.921730256	
Corrected Activity:	20794.23458	dpm/mL
Decay Activity (Sr/Y-90)	41588.46916	dpm

Curve is for Gross Alpha

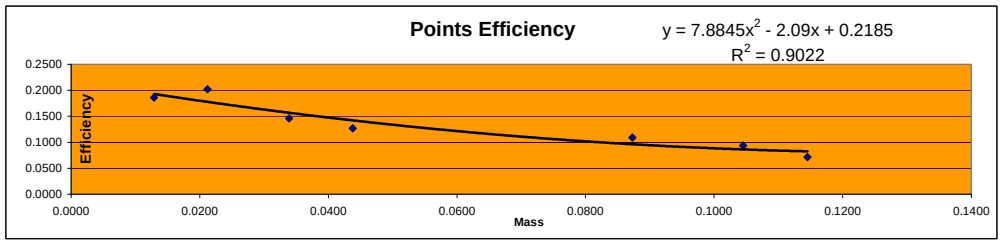
Orange 2

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
2	ICABT-51465;A1	12/2/2015 13:20	40	17637	440.925	2374.5	0.1857	1mL	0.0129
2	ICABT-51465;A2	12/2/2015 12:28	40	19178	479.450	2374.5	0.2019	1mL	0.0212
2	ICABT-51465;A3	12/2/2015 11:01	40	13885	347.125	2374.5	0.1462	1mL	0.0339
2	ICABT-51465;A4	12/2/2015 19:20	40	12026	300.650	2374.5	0.1266	1mL	0.0438
2	ICABT-51465;A6	12/2/2015 16:13	40	20749	518.725	4749.0	0.1092	2mL	0.0873
2	ICABT-51465;A7	12/2/2015 15:06	40	17765	444.125	4749.0	0.0935	2mL	0.1045
2	ICABT-51465;A8	12/2/2015 14:12	40	13567	339.175	4749.0	0.0714	2mL	0.1145

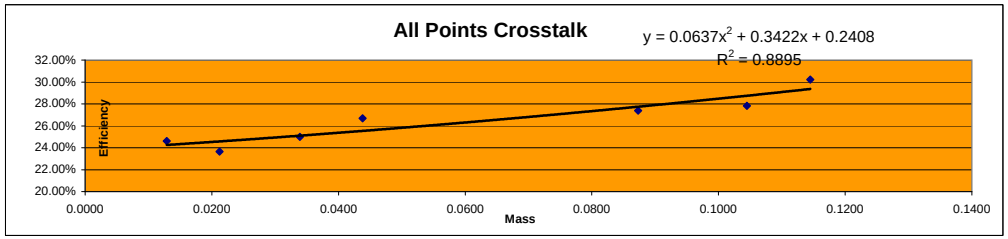
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1857	0.1929	-3.71%
0.0212	0.2019	0.1777	13.60%
0.0339	0.1462	0.1567	-6.71%
0.0438	0.1266	0.1421	-10.89%
0.0873	0.1092	0.0961	13.62%
0.1045	0.0935	0.0862	8.50%
0.1145	0.0714	0.0826	-13.50%



Mass	Efficiency
0.0129	0.1857
0.0212	0.2019
0.0339	0.1462
0.0438	0.1266
0.0873	0.1092
0.1045	0.0935
0.1145	0.0714



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
2	ICABT-51465;A1	0.0129	40	17637	5755	440.93	143.88	24.60%	Min
2	ICABT-51465;A2	0.0212	40	19178	5936	479.45	148.40	23.64%	23.64%
2	ICABT-51465;A3	0.0339	40	13885	4624	347.13	115.60	24.98%	
2	ICABT-51465;A4	0.0438	40	12026	4378	300.65	109.45	26.69%	Max
2	ICABT-51465;A6	0.0873	40	20749	7822	518.73	195.55	27.38%	30.21%
2	ICABT-51465;A7	0.1045	40	17765	6850	444.13	171.25	27.83%	
2	ICABT-51465;A8	0.1145	40	13567	5873	339.18	146.83	30.21%	Mean
									26.48%



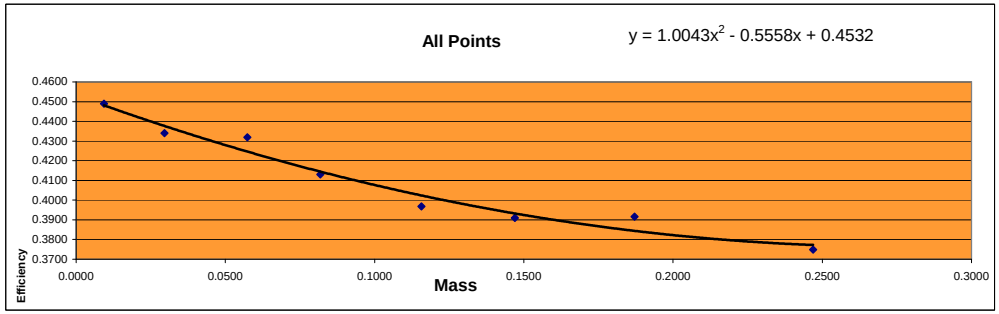
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

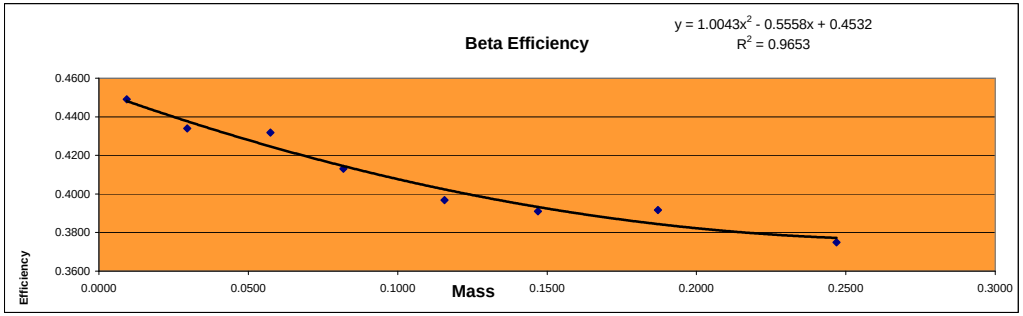
Orange 3

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
3	B1	1/23/2013 15:09	0.0093	5	93370	18674.000	0.4490	1mL
3	B2	1/23/2013 15:00	0.0296	5	90236	18047.200	0.4339	1mL
3	B3	1/23/2013 14:53	0.0574	5	89800	17960.000	0.4319	1mL
3	B4	1/23/2013 14:45	0.0818	5	85882	17176.400	0.4130	1mL
3	B5	1/23/2013 15:46	0.1157	5	82510	16502.000	0.3968	1mL
3	B6	1/23/2013 15:37	0.1470	5	81306	16261.200	0.3910	1mL
3	B7	1/23/2013 15:27	0.1871	5	81437	16287.400	0.3916	1mL
3	B8	1/23/2013 15:19	0.2469	5	77961	15592.200	0.3749	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4490	0.4481	0.20%
0.0296	0.4339	0.4376	-0.84%
0.0574	0.4319	0.4246	1.71%
0.0818	0.4130	0.4145	-0.35%
0.1157	0.3968	0.4023	-1.38%
0.1470	0.3910	0.3932	-0.56%
0.1871	0.3916	0.3844	1.89%
0.2469	0.3749	0.3772	-0.60%



Mass	Efficiency
0.0093	0.4490
0.0296	0.4339
0.0574	0.4319
0.0818	0.4130
0.1157	0.3968
0.1470	0.3910
0.1871	0.3916
0.2469	0.3749



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

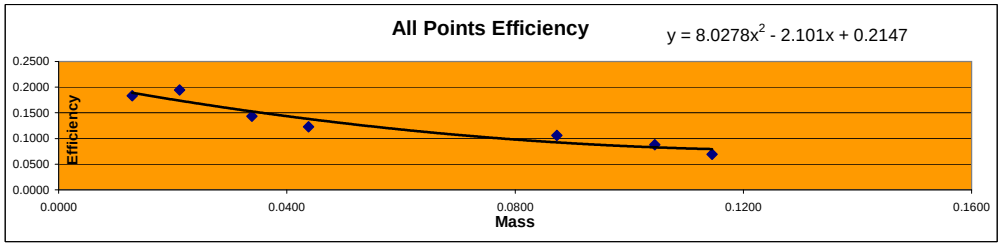
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	1/23/2013
Elapsed Time:	1224.000 days
Half Life:	10409.625 days
Exponential Term:	0.921730256
Corrected Activity:	20794.23458 dpm/mL
Decay Activity (Sr/Y-90)	41588.46916 dpm

Curve is for Gross Alpha

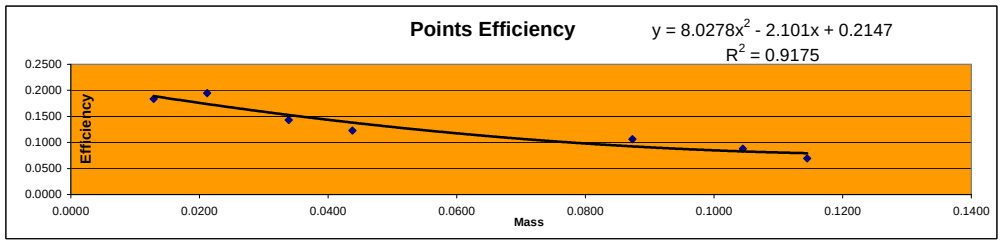
Orange 3

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
3	ICABT-51465;A1	12/2/2015 14:11	40	17431	435.775	2374.5	0.1835	1mL	0.0129
3	ICABT-51465;A2	12/2/2015 13:20	40	18484	462.100	2374.5	0.1946	1mL	0.0212
3	ICABT-51465;A3	12/2/2015 12:29	40	13614	340.350	2374.5	0.1433	1mL	0.0339
3	ICABT-51465;A4	12/2/2015 11:01	40	11687	292.175	2374.5	0.1230	1mL	0.0438
3	ICABT-51465;A6	12/2/2015 17:07	40	20171	504.275	4749.0	0.1062	2mL	0.0873
3	ICABT-51465;A7	12/2/2015 16:13	40	16736	418.400	4749.0	0.0881	2mL	0.1045
3	ICABT-51465;A8	12/2/2015 15:06	40	13182	329.550	4749.0	0.0694	2mL	0.1145

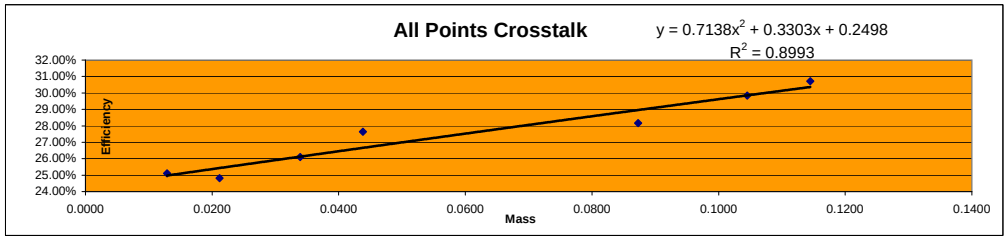
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1835	0.1889	-2.86%
0.0212	0.1946	0.1738	11.99%
0.0339	0.1433	0.1527	-6.13%
0.0438	0.1230	0.1381	-10.89%
0.0873	0.1062	0.0925	14.84%
0.1045	0.0881	0.0828	6.39%
0.1145	0.0694	0.0794	-12.58%



Mass	Efficiency
0.0129	0.1835
0.0212	0.1946
0.0339	0.1433
0.0438	0.1230
0.0873	0.1062
0.1045	0.0881
0.1145	0.0694



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
3	ICABT-51465;A1	0.0129	40	17431	5843	435.78	146.08	25.11%	Min
3	ICABT-51465;A2	0.0212	40	18484	6100	462.10	152.50	24.81%	24.81%
3	ICABT-51465;A3	0.0339	40	13614	4807	340.35	120.18	26.10%	
3	ICABT-51465;A4	0.0438	40	11687	4464	292.18	111.60	27.64%	Max
3	ICABT-51465;A6	0.0873	40	20171	7912	504.28	197.80	28.17%	30.71%
3	ICABT-51465;A7	0.1045	40	16736	7119	418.40	177.98	29.84%	
3	ICABT-51465;A8	0.1145	40	13182	5842	329.55	146.05	30.71%	Mean
									27.48%



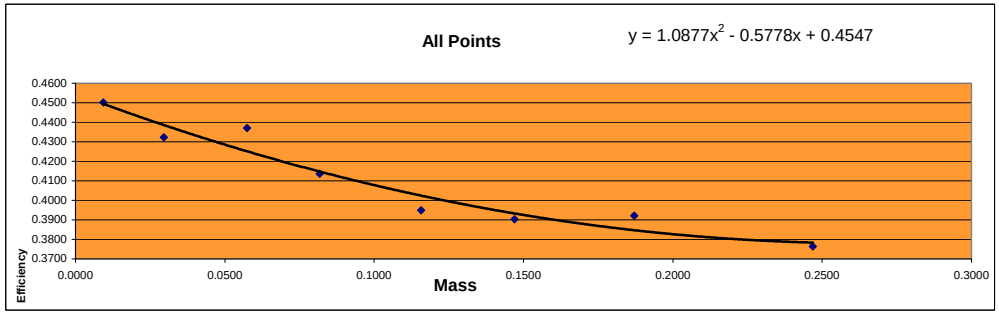
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

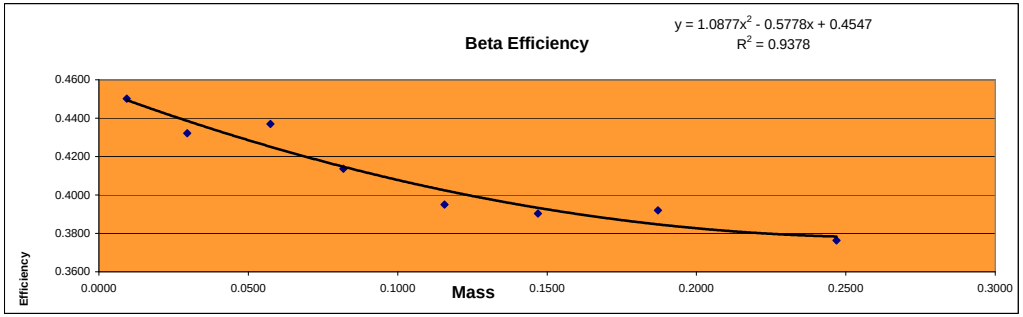
Orange 4

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
4	B1	1/23/2013 15:18	0.0093	5	93592	18718.400	0.4501	1mL
4	B2	1/23/2013 15:09	0.0296	5	89877	17975.400	0.4322	1mL
4	B3	1/23/2013 15:00	0.0574	5	90869	18173.800	0.4370	1mL
4	B4	1/23/2013 14:53	0.0818	5	86007	17201.400	0.4136	1mL
4	B5	1/23/2013 14:45	0.1157	5	82135	16427.000	0.3950	1mL
4	B6	1/23/2013 15:46	0.1470	5	81161	16232.200	0.3903	1mL
4	B7	1/23/2013 15:37	0.1871	5	81527	16305.400	0.3921	1mL
4	B8	1/23/2013 15:27	0.2469	5	78270	15654.000	0.3764	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4501	0.4494	0.15%
0.0296	0.4322	0.4386	-1.44%
0.0574	0.4370	0.4251	2.79%
0.0818	0.4136	0.4147	-0.27%
0.1157	0.3950	0.4024	-1.84%
0.1470	0.3903	0.3933	-0.75%
0.1871	0.3921	0.3847	1.92%
0.2469	0.3764	0.3783	-0.51%



Mass	Efficiency
0.0093	0.4501
0.0296	0.4322
0.0574	0.4370
0.0818	0.4136
0.1157	0.3950
0.1470	0.3903
0.1871	0.3921
0.2469	0.3764



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

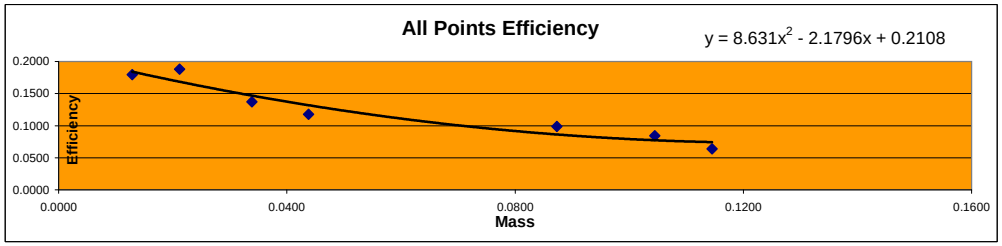
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	1/23/2013	
Elapsed Time:	1224.000	days
Half Life:	10409.625	days
Exponential Term:	0.921730256	
Corrected Activity:	20794.23458	dpm/mL
Decay Activity (Sr/Y-90)	41588.46916	dpm

Curve is for Gross Alpha

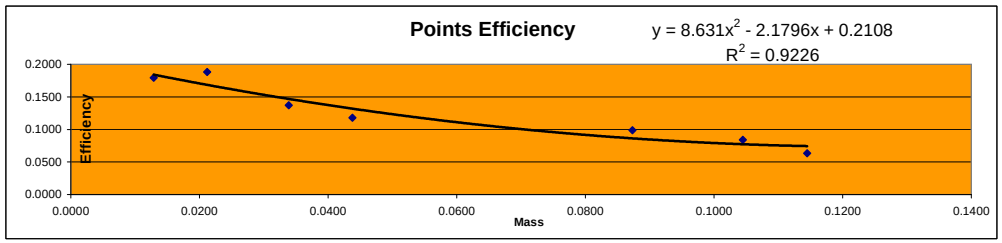
Orange 4

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
4	ICABT-51465;A1	12/2/2015 15:06	40	17042	426.050	2374.5	0.1794	1mL	0.0129
4	ICABT-51465;A2	12/2/2015 14:11	40	17878	446.950	2374.5	0.1882	1mL	0.0212
4	ICABT-51465;A3	12/2/2015 13:20	40	13009	325.225	2374.5	0.1370	1mL	0.0339
4	ICABT-51465;A4	12/2/2015 12:29	40	11201	280.025	2374.5	0.1179	1mL	0.0438
4	ICABT-51465;A6	12/2/2015 19:20	40	18792	469.800	4749.0	0.0989	2mL	0.0873
4	ICABT-51465;A7	12/2/2015 17:07	40	15983	399.575	4749.0	0.0841	2mL	0.1045
4	ICABT-51465;A8	12/2/2015 16:13	40	12083	302.075	4749.0	0.0636	2mL	0.1145

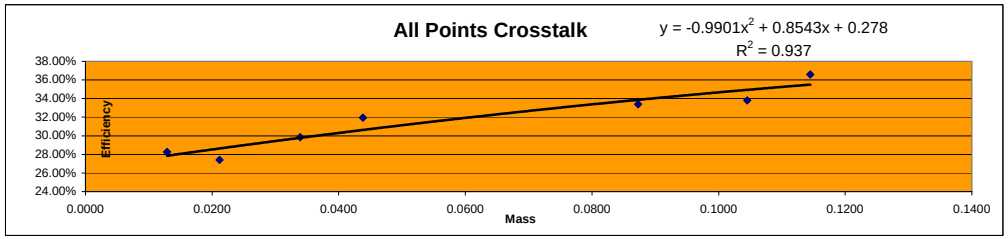
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1794	0.1841	-2.55%
0.0212	0.1882	0.1685	11.73%
0.0339	0.1370	0.1468	-6.72%
0.0438	0.1179	0.1319	-10.59%
0.0873	0.0989	0.0863	14.63%
0.1045	0.0841	0.0773	8.87%
0.1145	0.0636	0.0744	-14.49%



Mass	Efficiency
0.0129	0.1794
0.0212	0.1882
0.0339	0.1370
0.0438	0.1179
0.0873	0.0989
0.1045	0.0841
0.1145	0.0636



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
4	ICABT-51465;A1	0.0129	40	17042	6715	426.05	167.88	28.27%	Min
4	ICABT-51465;A2	0.0212	40	17878	6747	446.95	168.68	27.40%	27.40%
4	ICABT-51465;A3	0.0339	40	13009	5532	325.23	138.30	29.84%	
4	ICABT-51465;A4	0.0438	40	11201	5259	280.03	131.48	31.95%	Max
4	ICABT-51465;A6	0.0873	40	18792	9416	469.80	235.40	33.38%	36.58%
4	ICABT-51465;A7	0.1045	40	15983	8156	399.58	203.90	33.79%	
4	ICABT-51465;A8	0.1145	40	12083	6969	302.08	174.23	36.58%	Mean
									31.60%



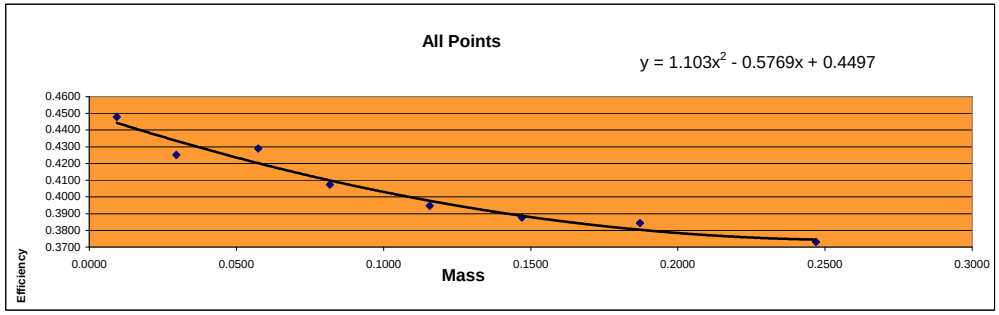
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

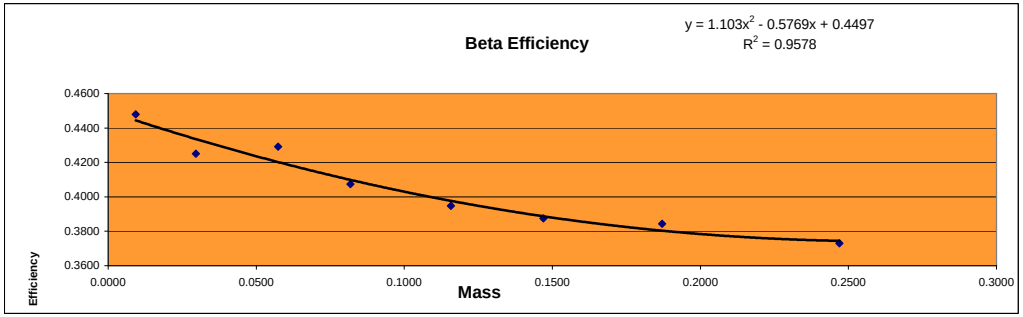
Orange 11

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41588.469 CPM	Sr-90 Eff	Standard Aliquot
11	B1	1/23/2013 16:58	0.0093	5	93137	18627.400	0.4479	1mL
11	B2	1/23/2013 16:46	0.0296	5	88398	17679.600	0.4251	1mL
11	B3	1/23/2013 14:36	0.0574	5	89220	17844.000	0.4291	1mL
11	B4	1/23/2013 14:27	0.0818	5	84701	16940.200	0.4073	1mL
11	B5	1/23/2013 17:27	0.1157	5	82088	16417.600	0.3948	1mL
11	B6	1/23/2013 17:19	0.1470	5	80590	16118.000	0.3876	1mL
11	B7	1/23/2013 17:12	0.1871	5	79937	15987.400	0.3844	1mL
11	B8	1/23/2013 17:05	0.2469	5	77581	15516.200	0.3731	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4479	0.4444	0.78%
0.0296	0.4251	0.4336	-1.96%
0.0574	0.4291	0.4202	2.10%
0.0818	0.4073	0.4099	-0.62%
0.1157	0.3948	0.3977	-0.74%
0.1470	0.3876	0.3887	-0.30%
0.1871	0.3844	0.3804	1.06%
0.2469	0.3731	0.3745	-0.38%



Mass	Efficiency
0.0093	0.4479
0.0296	0.4251
0.0574	0.4291
0.0818	0.4073
0.1157	0.3948
0.1470	0.3876
0.1871	0.3844
0.2469	0.3731



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

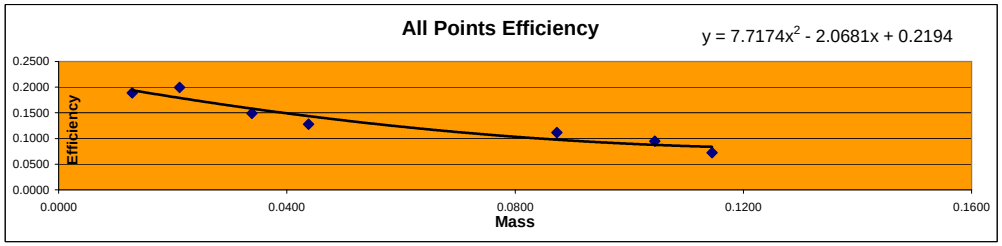
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	1/23/2013	
Elapsed Time:	1224.000	days
Half Life:	10409.625	days
Exponential Term:	0.921730256	
Corrected Activity:	20794.23458	dpm/mL
Decay Activity (Sr/Y-90)	41588.46916	dpm

Curve is for Gross Alpha

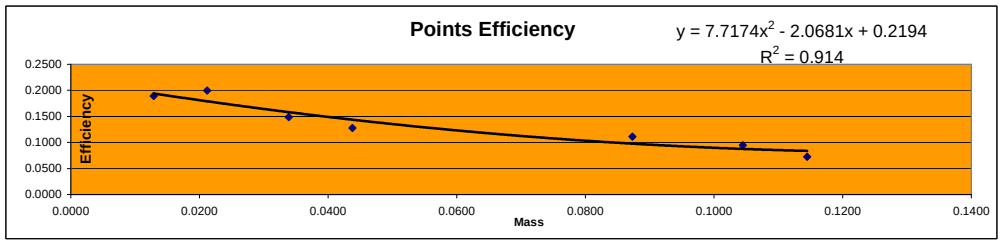
Orange **11**

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
11	ICABT-51465;A1	12/21/2015 19:39	40	17963	449.075	2374.5	0.1891	1mL	0.0129
11	ICABT-51465;A2	12/21/2015 18:51	40	18964	474.100	2374.5	0.1997	1mL	0.0212
11	ICABT-51465;A3	12/21/2015 17:45	40	14139	353.475	2374.5	0.1489	1mL	0.0339
11	ICABT-51465;A4	12/21/2015 16:28	40	12144	303.600	2374.5	0.1279	1mL	0.0438
11	ICABT-51465;A6	12/22/2015 1:01	40	21163	529.075	4749.0	0.1114	2mL	0.0873
11	ICABT-51465;A7	12/21/2015 21:56	40	18009	450.225	4749.0	0.0948	2mL	0.1045
11	ICABT-51465;A8	12/21/2015 20:26	40	13739	343.475	4749.0	0.0723	2mL	0.1145

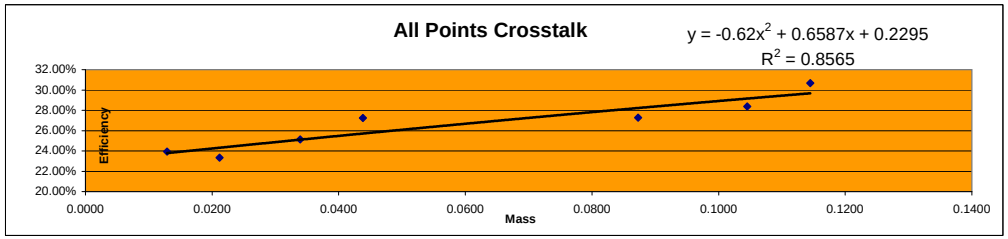
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1891	0.1940	-2.52%
0.0212	0.1997	0.1790	11.53%
0.0339	0.1489	0.1582	-5.88%
0.0438	0.1279	0.1436	-10.98%
0.0873	0.1114	0.0977	14.06%
0.1045	0.0948	0.0876	8.27%
0.1145	0.0723	0.0838	-13.67%



Mass	Efficiency
0.0129	0.1891
0.0212	0.1997
0.0339	0.1489
0.0438	0.1279
0.0873	0.1114
0.1045	0.0948
0.1145	0.0723



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
11	ICABT-51465;A1	0.0129	40	17963	5654	449.08	141.35	23.94%	Min
11	ICABT-51465;A2	0.0212	40	18964	5769	474.10	144.23	23.33%	23.33%
11	ICABT-51465;A3	0.0339	40	14139	4749	353.48	118.73	25.14%	
11	ICABT-51465;A4	0.0438	40	12144	4547	303.60	113.68	27.24%	Max
11	ICABT-51465;A6	0.0873	40	21163	7938	529.08	198.45	27.28%	
11	ICABT-51465;A7	0.1045	40	18009	7139	450.23	178.48	28.39%	Mean
11	ICABT-51465;A8	0.1145	40	13739	6079	343.48	151.98	30.67%	26.57%



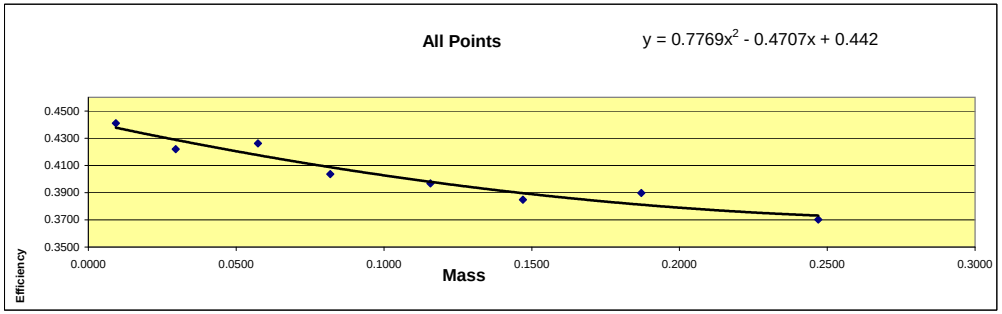
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

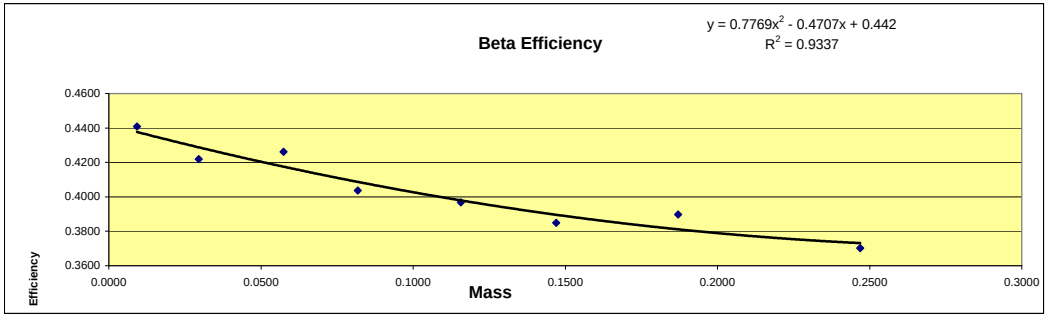
Protean 15

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41414.371 CPM	Sr-90 Eff	Standard Aliquot
15	B1	3/27/2013 10:28:44 AM	0.0093	1.01	18443	18260.396	0.4409	1mL
15	B2	3/27/2013 10:22:04 AM	0.0296	1.01	17651	17476.238	0.4220	1mL
15	B3	3/27/2013 10:14:38 AM	0.0574	1.01	17823	17646.535	0.4261	1mL
15	B4	3/27/2013 10:06:16 AM	0.0818	1.01	16883	16715.842	0.4036	1mL
15	B5	3/27/2013 9:57:09 AM	0.1157	1.01	16601	16436.634	0.3969	1mL
15	B6	3/27/2013 9:49:29 AM	0.1470	1.01	16099	15939.604	0.3849	1mL
15	B7	3/27/2013 9:36:15 AM	0.1871	1.01	16302	16140.594	0.3897	1mL
15	B8	3/27/2013 9:28:01 AM	0.2469	1.01	15488	15334.653	0.3703	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4409	0.4377	0.74%
0.0296	0.4220	0.4287	-1.58%
0.0574	0.4261	0.4175	2.05%
0.0818	0.4036	0.4087	-1.24%
0.1157	0.3969	0.3979	-0.27%
0.1470	0.3849	0.3896	-1.21%
0.1871	0.3897	0.3811	2.26%
0.2469	0.3703	0.3731	-0.77%



Mass	Efficiency
0.0093	0.4409
0.0296	0.4220
0.0574	0.4261
0.0818	0.4036
0.1157	0.3969
0.1470	0.3849
0.1871	0.3897
0.2469	0.3703



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

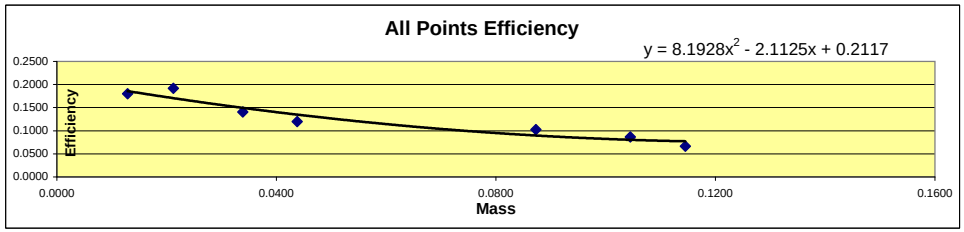
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	3/27/2013	
Elapsed Time:	1287.000	days
Half Life:	10409.625	days
Exponential Term:	0.917871706	
Corrected Activity:	20707.18568	dpm/mL
Decay Activity (Sr/Y-90)	41414.37137	dpm

Curve is for Gross Alpha

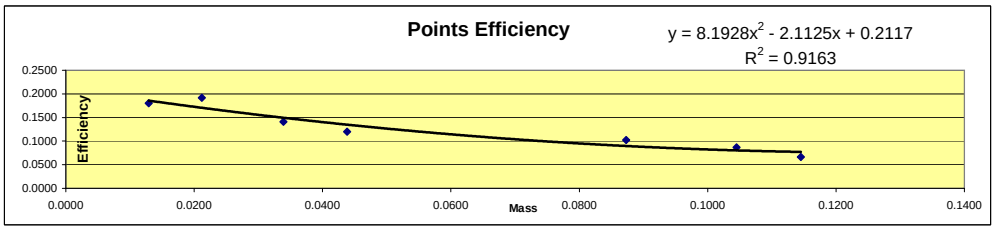
Protean 15

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
15	ICABT-51465;A1	11/27/2015 1:36:43 PM	50	21370	427.400	2374.5	0.1800	1mL	0.0129
15	ICABT-51465;A2	11/27/2015 12:40:08 PM	50	22735	454.700	2374.5	0.1915	1mL	0.0212
15	ICABT-51465;A3	11/29/2015 4:24:28 PM	50	16706	334.120	2374.5	0.1407	1mL	0.0339
15	ICABT-51465;A4	11/27/2015 9:41:09 AM	50	14210	284.200	2374.5	0.1197	1mL	0.0438
15	ICABT-51465;A6	11/26/2015 12:35:40 AM	50	24317	486.340	4749.0	0.1024	2mL	0.0873
15	ICABT-51465;A7	11/25/2015 11:38:49 PM	50	20630	412.600	4749.0	0.0869	2mL	0.1045
15	ICABT-51465;A8	11/25/2015 7:09:17 PM	50	15839	316.780	4749.0	0.0667	2mL	0.1145

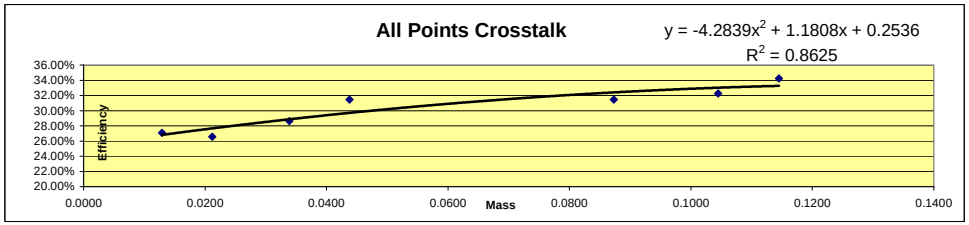
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1800	0.1858	-3.13%
0.0212	0.1915	0.1706	12.25%
0.0339	0.1407	0.1495	-5.88%
0.0438	0.1197	0.1349	-11.27%
0.0873	0.1024	0.0897	14.14%
0.1045	0.0869	0.0804	8.05%
0.1145	0.0667	0.0772	-13.63%



Mass	Efficiency
0.0129	0.1800
0.0212	0.1915
0.0339	0.1407
0.0438	0.1197
0.0873	0.1024
0.1045	0.0869
0.1145	0.0667



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
15	ICABT-51465;A1	0.0129	50	21370	7940	427.40	158.80	27.09%	Min
15	ICABT-51465;A2	0.0212	50	22735	8232	454.70	164.64	26.58%	26.58%
15	ICABT-51465;A3	0.0339	50	16706	6709	334.12	134.18	28.65%	
15	ICABT-51465;A4	0.0438	50	14210	6516	284.20	130.32	31.44%	Max
15	ICABT-51465;A6	0.0873	50	24317	11164	486.34	223.28	31.46%	34.23%
15	ICABT-51465;A7	0.1045	50	20630	9823	412.60	196.46	32.26%	
15	ICABT-51465;A8	0.1145	50	15839	8245	316.78	164.90	34.23%	Mean
									30.25%



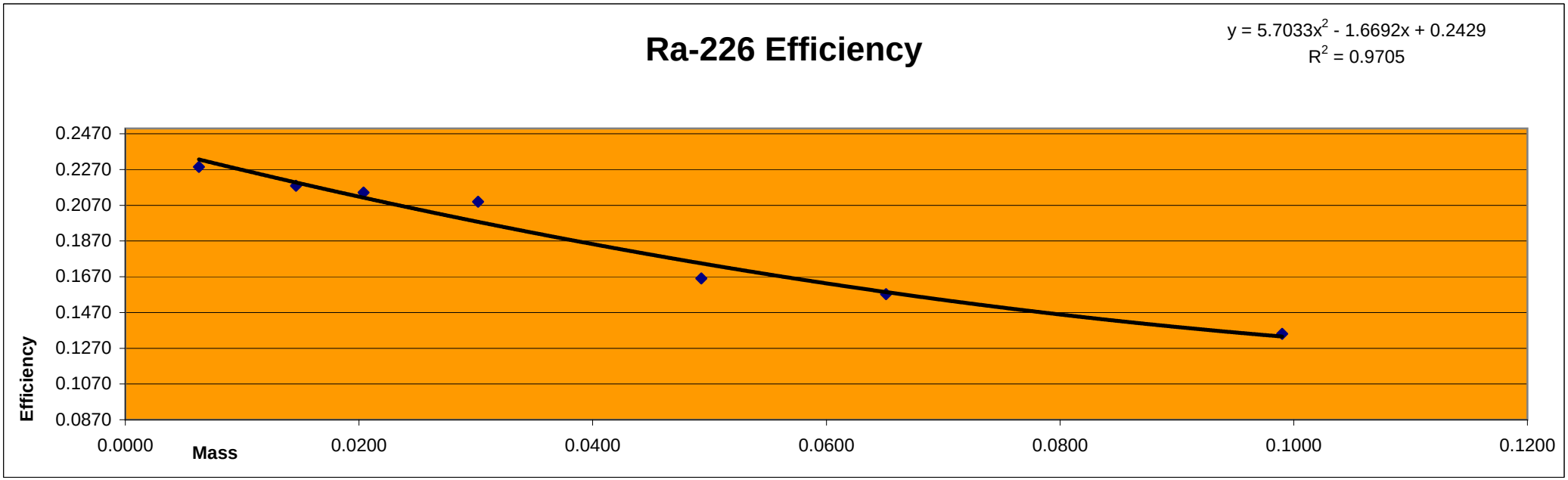
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Ra-226 Calibrations

Ra-226 Calibration 2017

Orange 9

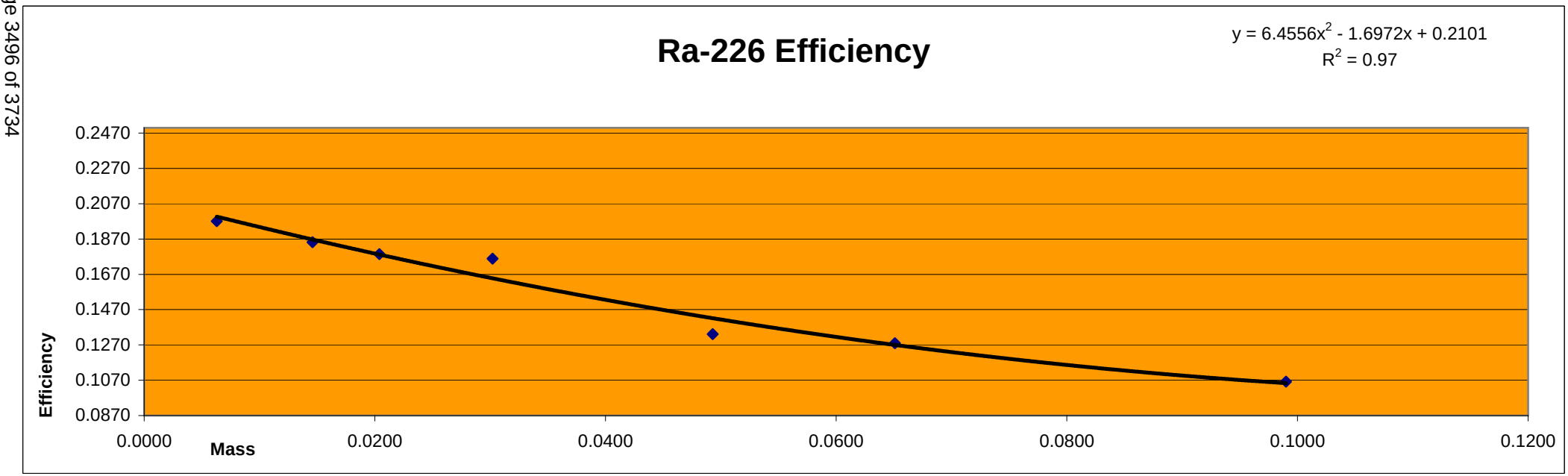
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/14/2017 23:23	19433	1295.5333	2/13/2017 13:30	1.6775	0.4487	1721.0882	7534.6	0.2284
R3	0.0146	15.00	2/14/2017 23:07	28565	1904.3333	2/13/2017 13:30	1.6727	0.6933	1642.2147	7534.6	0.2180
R4	0.0204	15.00	2/15/2017 1:18	30085	2005.6667	2/13/2017 13:30	1.7108	0.7265	1613.6670	7534.6	0.2142
R5	0.0302	15.00	2/15/2017 1:01	34669	2311.2667	2/13/2017 13:30	1.7061	0.8604	1574.5499	7534.6	0.2090
R6	0.0493	15.00	2/15/2017 0:40	29869	1991.2667	2/13/2017 13:30	1.7000	0.9364	1250.9347	7534.6	0.1660
R7	0.0651	15.00	2/15/2017 0:23	27932	1862.1333	2/13/2017 13:30	1.6950	0.9274	1184.6776	7534.6	0.1572
R8	0.0990	15.00	2/15/2017 0:05	24254	1616.9333	2/13/2017 13:30	1.6899	0.9402	1017.7401	7534.6	0.1351



Ra-226 Calibration 2017

Orange 10

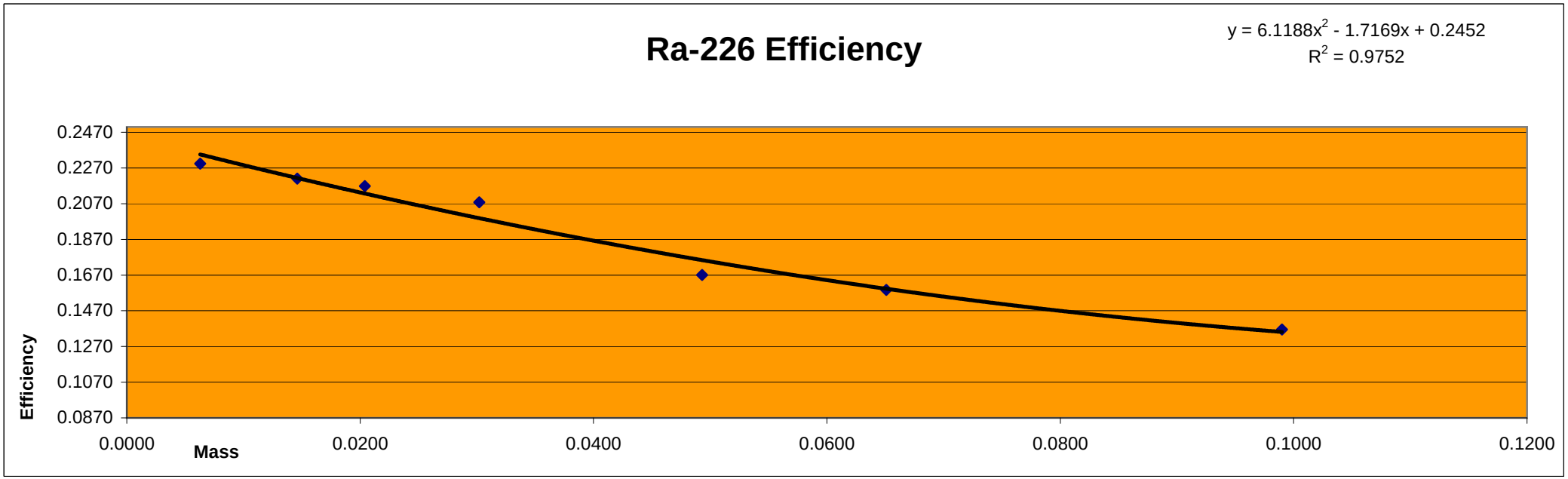
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/14/2017 23:47	16842	1122.8000	2/13/2017 13:30	1.6846	0.4487	1485.3694	7534.6	0.1971
R3	0.0146	15.00	2/14/2017 23:23	24348	1623.2000	2/13/2017 13:30	1.6775	0.6933	1395.7361	7534.6	0.1852
R4	0.0204	15.00	2/14/2017 23:07	24499	1633.2667	2/13/2017 13:30	1.6727	0.7265	1344.0047	7534.6	0.1784
R5	0.0302	15.00	2/15/2017 1:18	29259	1950.6000	2/13/2017 13:30	1.7109	0.8604	1325.1192	7534.6	0.1759
R6	0.0493	15.00	2/15/2017 1:01	24027	1601.8000	2/13/2017 13:30	1.7061	0.9364	1002.6864	7534.6	0.1331
R7	0.0651	15.00	2/15/2017 0:40	22801	1520.0667	2/13/2017 13:30	1.7000	0.9274	964.2019	7534.6	0.1280
R8	0.0990	15.00	2/15/2017 0:23	19128	1275.2000	2/13/2017 13:30	1.6950	0.9402	800.2050	7534.6	0.1062



Ra-226 Calibration 2017

Orange 11

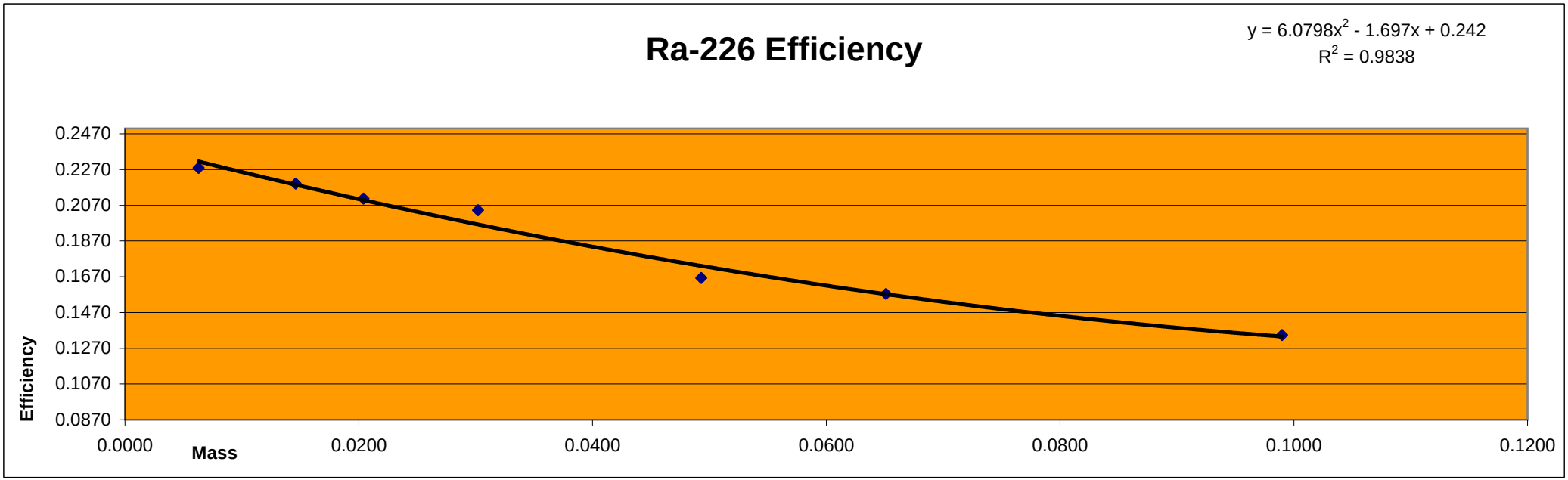
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/15/2017 0:05	19658	1310.5333	2/13/2017 13:30	1.6897	0.4487	1728.4524	7534.6	0.2294
R3	0.0146	15.00	2/14/2017 23:47	29180	1945.3333	2/13/2017 13:30	1.6846	0.6933	1665.7234	7534.6	0.2211
R4	0.0204	15.00	2/14/2017 23:23	29877	1991.8000	2/13/2017 13:30	1.6776	0.7265	1634.3074	7534.6	0.2169
R5	0.0302	15.00	2/14/2017 23:07	33804	2253.6000	2/13/2017 13:30	1.6727	0.8604	1565.8565	7534.6	0.2078
R6	0.0493	15.00	2/15/2017 1:18	30244	2016.2667	2/13/2017 13:30	1.7109	0.9364	1258.5926	7534.6	0.1670
R7	0.0651	15.00	2/15/2017 1:01	28377	1891.8000	2/13/2017 13:30	1.7061	0.9274	1195.7004	7534.6	0.1587
R8	0.0990	15.00	2/15/2017 0:40	24663	1644.2000	2/13/2017 13:30	1.7000	0.9402	1028.7115	7534.6	0.1365



Ra-226 Calibration 2017

Orange 12

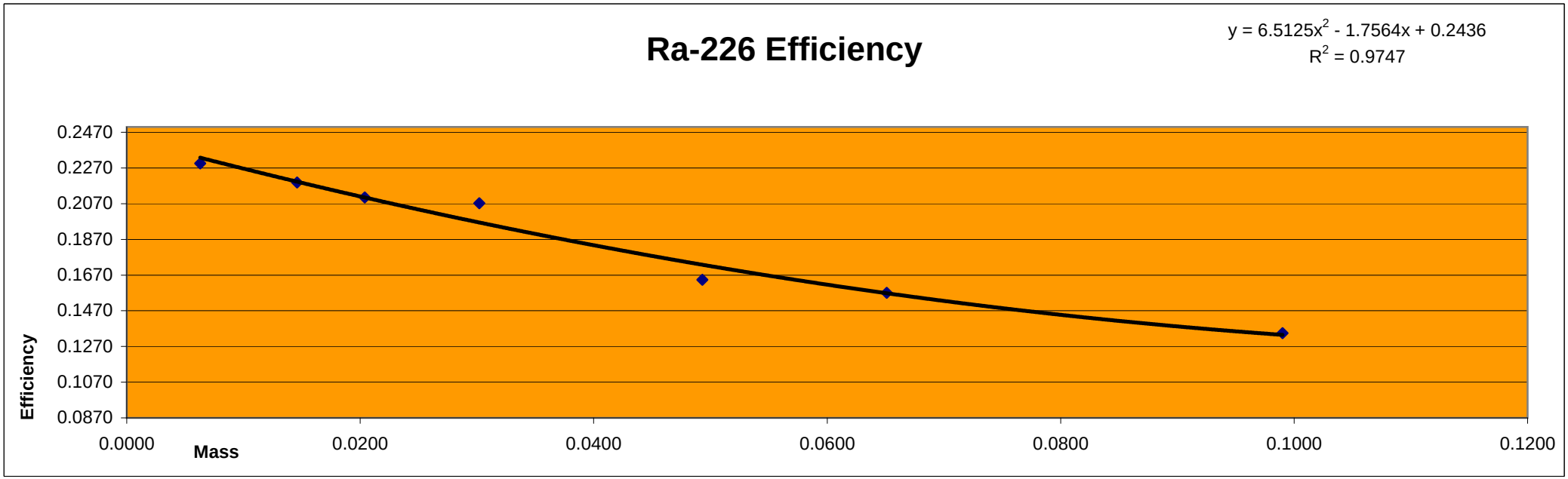
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/15/2017 0:23	19595	1306.3333	2/13/2017 13:30	1.6949	0.4487	1717.6325	7534.6	0.2280
R3	0.0146	15.00	2/15/2017 0:05	29008	1933.8667	2/13/2017 13:30	1.6897	0.6933	1650.8645	7534.6	0.2191
R4	0.0204	15.00	2/14/2017 23:47	29154	1943.6000	2/13/2017 13:30	1.6846	0.7265	1588.0805	7534.6	0.2108
R5	0.0302	15.00	2/14/2017 23:23	33307	2220.4667	2/13/2017 13:30	1.6776	0.8604	1538.3803	7534.6	0.2042
R6	0.0493	15.00	2/14/2017 23:07	29435	1962.3333	2/13/2017 13:30	1.6728	0.9364	1252.8111	7534.6	0.1663
R7	0.0651	15.00	2/15/2017 1:18	28212	1880.8000	2/13/2017 13:30	1.7109	0.9274	1185.4411	7534.6	0.1573
R8	0.0990	15.00	2/15/2017 1:01	24373	1624.8667	2/13/2017 13:30	1.7061	0.9402	1012.9831	7534.6	0.1344



Ra-226 Calibration 2017

Orange 13

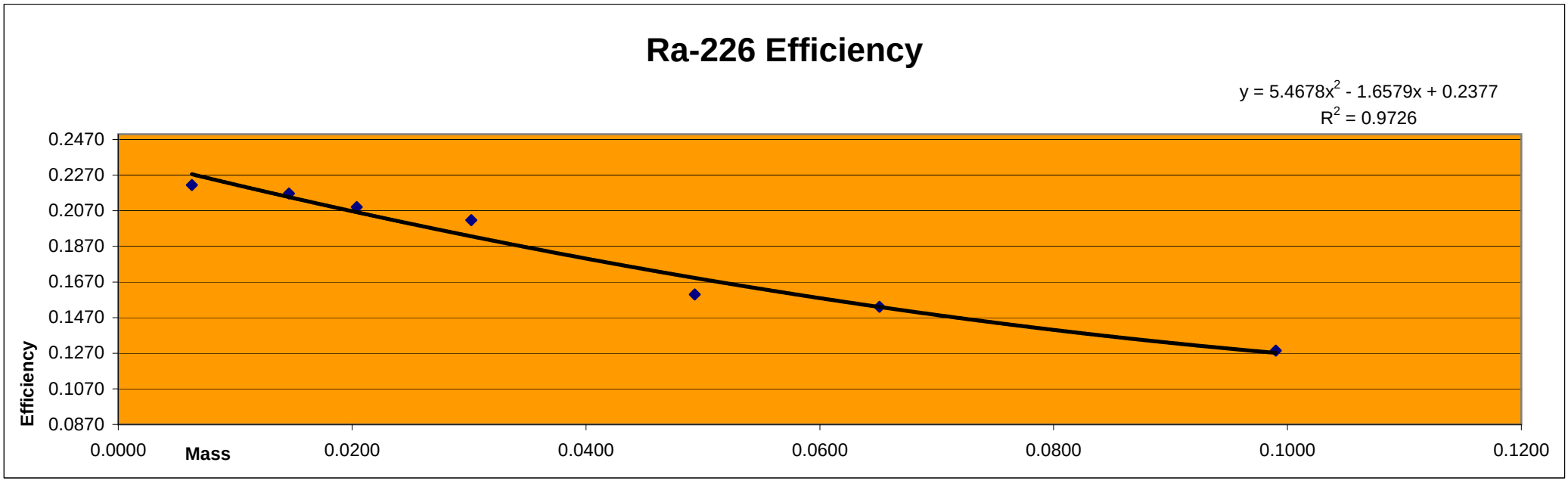
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/15/2017 0:40	19788	1319.2000	2/13/2017 13:30	1.6999	0.4487	1729.4240	7534.6	0.2295
R3	0.0146	15.00	2/15/2017 0:23	29069	1937.9333	2/13/2017 13:30	1.6950	0.6933	1649.2140	7534.6	0.2189
R4	0.0204	15.00	2/15/2017 0:05	29208	1947.2000	2/13/2017 13:30	1.6898	0.7265	1586.1792	7534.6	0.2105
R5	0.0302	15.00	2/14/2017 23:47	33960	2264.0000	2/13/2017 13:30	1.6846	0.8604	1561.9684	7534.6	0.2073
R6	0.0493	15.00	2/14/2017 23:23	29177	1945.1333	2/13/2017 13:30	1.6776	0.9364	1238.2774	7534.6	0.1643
R7	0.0651	15.00	2/14/2017 23:07	27545	1836.3333	2/13/2017 13:30	1.6728	0.9274	1183.7688	7534.6	0.1571
R8	0.0990	15.00	2/15/2017 1:18	24455	1630.3333	2/13/2017 13:30	1.7109	0.9402	1013.5552	7534.6	0.1345



Ra-226 Calibration 2017

Orange 15

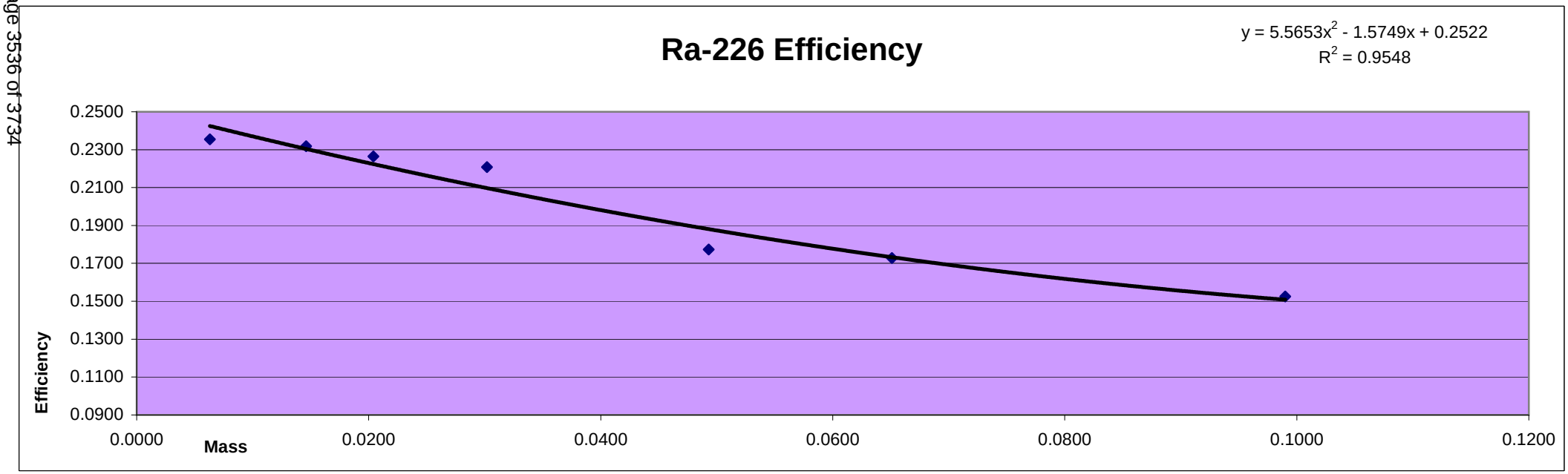
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/15/2017 1:18	19208	1280.5333	2/13/2017 13:30	1.7108	0.4487	1668.0719	7534.6	0.2214
R3	0.0146	15.00	2/15/2017 1:01	28974	1931.6000	2/13/2017 13:30	1.7060	0.6933	1633.1980	7534.6	0.2168
R4	0.0204	15.00	2/15/2017 0:40	29181	1945.4000	2/13/2017 13:30	1.7000	0.7265	1575.1872	7534.6	0.2091
R5	0.0302	15.00	2/15/2017 0:23	33252	2216.8000	2/13/2017 13:30	1.6950	0.8604	1520.0589	7534.6	0.2017
R6	0.0493	15.00	2/15/2017 0:05	28616	1907.7333	2/13/2017 13:30	1.6898	0.9364	1205.7021	7534.6	0.1600
R7	0.0651	15.00	2/14/2017 23:48	27034	1802.2667	2/13/2017 13:30	1.6847	0.9274	1153.6235	7534.6	0.1531
R8	0.0990	15.00	2/14/2017 23:23	22898	1526.5333	2/13/2017 13:30	1.6776	0.9402	967.8339	7534.6	0.1285



Ra-226 Calibration 2017

Purple 0

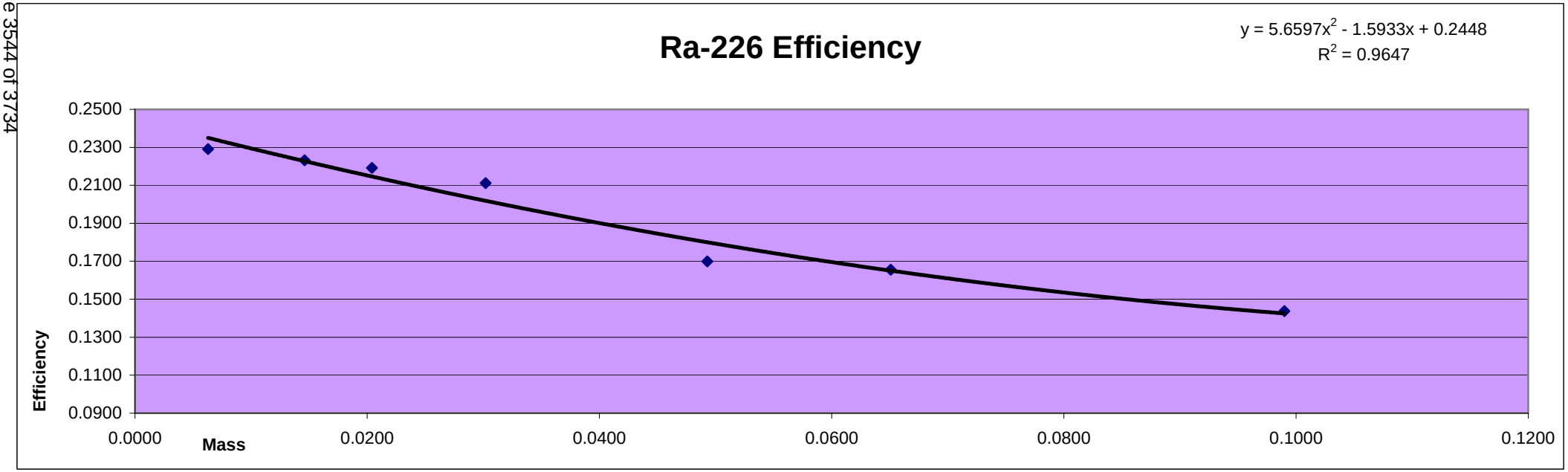
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 1:15	28735	1915.6667	2/13/2017 13:30	2.4064	0.4487	1774.0852	7534.6	0.2355
R3	0.0146	15.00	2/17/2017 3:21	44155	2943.6667	2/13/2017 13:30	2.4314	0.6933	1746.3557	7534.6	0.2318
R4	0.0204	15.00	2/17/2017 3:04	45140	3009.3333	2/13/2017 13:30	2.4280	0.7265	1706.0163	7534.6	0.2264
R5	0.0302	15.00	2/17/2017 2:46	52073	3471.5333	2/13/2017 13:30	2.4245	0.8604	1664.1494	7534.6	0.2209
R6	0.0493	15.00	2/17/2017 2:29	45436	3029.0667	2/13/2017 13:30	2.4212	0.9364	1336.1015	7534.6	0.1773
R7	0.0651	15.00	2/17/2017 2:12	43806	2920.4000	2/13/2017 13:30	2.4178	0.9274	1302.5167	7534.6	0.1729
R8	0.0990	15.00	2/17/2017 1:55	39113	2607.5333	2/13/2017 13:30	2.4144	0.9402	1148.7426	7534.6	0.1525



Ra-226 Calibration 2017

Purple 4

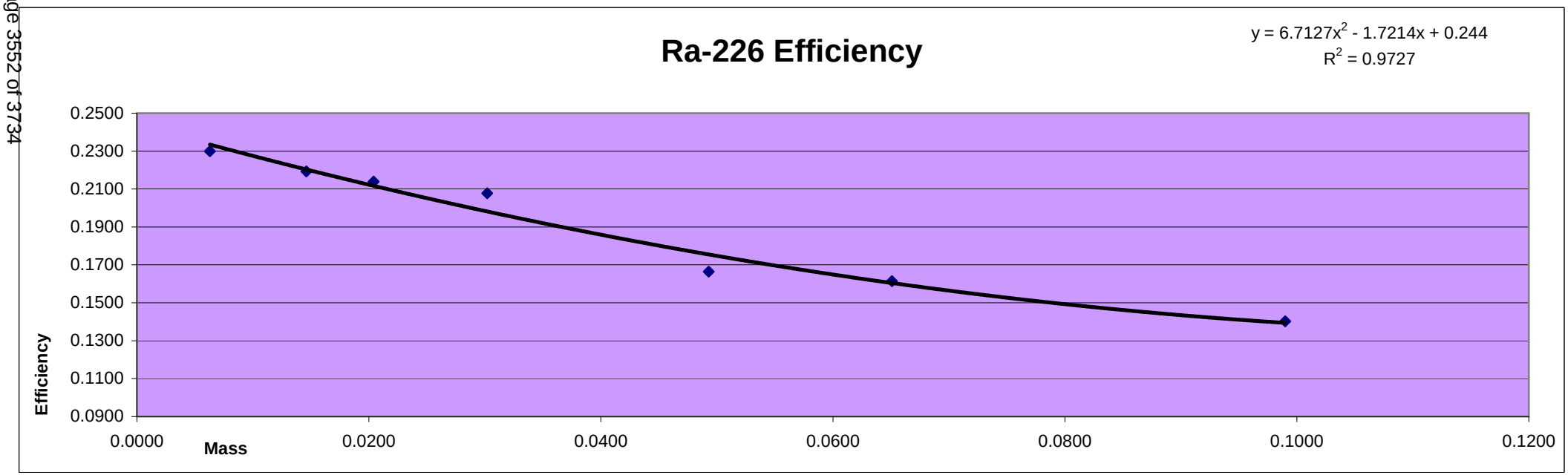
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 2:29	28129	1875.2667	2/13/2017 13:30	2.4211	0.4487	1726.1274	7534.6	0.2291
R3	0.0146	15.00	2/17/2017 2:12	42276	2818.4000	2/13/2017 13:30	2.4177	0.6933	1681.5054	7534.6	0.2232
R4	0.0204	15.00	2/17/2017 1:55	43445	2896.3333	2/13/2017 13:30	2.4143	0.7265	1651.2885	7534.6	0.2192
R5	0.0302	15.00	2/17/2017 1:32	49478	3298.5333	2/13/2017 13:30	2.4099	0.8604	1590.8465	7534.6	0.2111
R6	0.0493	15.00	2/17/2017 1:15	43282	2885.4667	2/13/2017 13:30	2.4065	0.9364	1280.5309	7534.6	0.1700
R7	0.0651	15.00	2/17/2017 3:21	42177	2811.8000	2/13/2017 13:30	2.4315	0.9274	1247.0214	7534.6	0.1655
R8	0.0990	15.00	2/17/2017 3:04	37097	2473.1333	2/13/2017 13:30	2.4281	0.9402	1083.3858	7534.6	0.1438



Ra-226 Calibration 2017

Purple 5

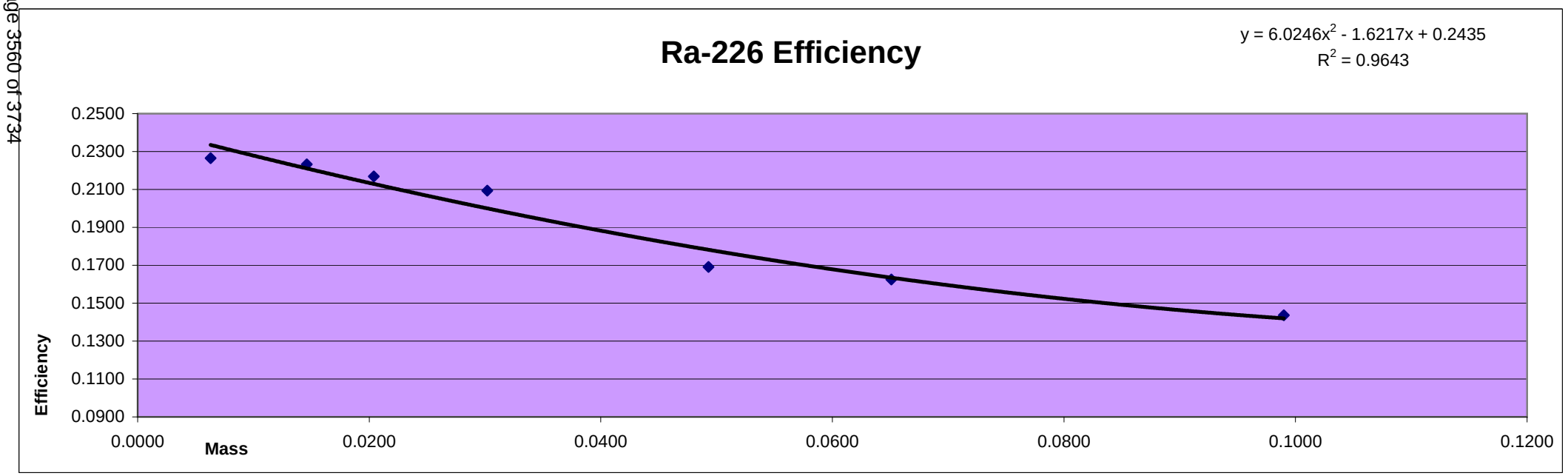
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 2:46	28275	1885.0000	2/13/2017 13:30	2.4245	0.4487	1732.6760	7534.6	0.2300
R3	0.0146	15.00	2/17/2017 2:29	41597	2773.1333	2/13/2017 13:30	2.4211	0.6933	1652.1827	7534.6	0.2193
R4	0.0204	15.00	2/17/2017 2:12	42455	2830.3333	2/13/2017 13:30	2.4177	0.7265	1611.3599	7534.6	0.2139
R5	0.0302	15.00	2/17/2017 1:55	48792	3252.8000	2/13/2017 13:30	2.4143	0.8604	1565.9042	7534.6	0.2078
R6	0.0493	15.00	2/17/2017 1:33	42429	2828.6000	2/13/2017 13:30	2.4099	0.9364	1253.5164	7534.6	0.1664
R7	0.0651	15.00	2/17/2017 1:16	40712	2714.1333	2/13/2017 13:30	2.4065	0.9274	1216.2028	7534.6	0.1614
R8	0.0990	15.00	2/17/2017 3:21	36246	2416.4000	2/13/2017 13:30	2.4315	0.9402	1057.0459	7534.6	0.1403



Ra-226 Calibration 2017

Purple 6

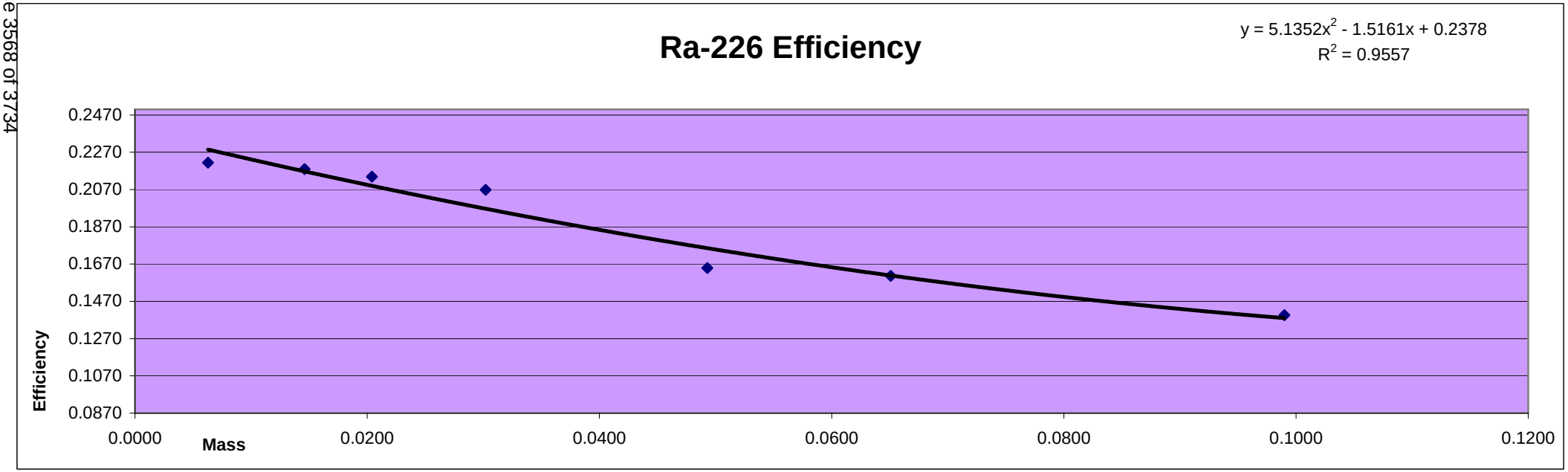
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 3:04	27887	1859.1333	2/13/2017 13:30	2.4280	0.4487	1706.4224	7534.6	0.2265
R3	0.0146	15.00	2/17/2017 2:46	42404	2826.9333	2/13/2017 13:30	2.4245	0.6933	1681.8981	7534.6	0.2232
R4	0.0204	15.00	2/17/2017 2:29	43110	2874.0000	2/13/2017 13:30	2.4211	0.7265	1633.9254	7534.6	0.2169
R5	0.0302	15.00	2/17/2017 2:12	49224	3281.6000	2/13/2017 13:30	2.4177	0.8604	1577.5170	7534.6	0.2094
R6	0.0493	15.00	2/17/2017 1:55	43200	2880.0000	2/13/2017 13:30	2.4143	0.9364	1273.9490	7534.6	0.1691
R7	0.0651	15.00	2/17/2017 1:33	41050	2736.6667	2/13/2017 13:30	2.4099	0.9274	1224.5666	7534.6	0.1625
R8	0.0990	15.00	2/17/2017 1:16	36714	2447.6000	2/13/2017 13:30	2.4065	0.9402	1081.8109	7534.6	0.1436



Ra-226 Calibration 2017

Purple 7

Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 3:21	27296	1819.7333	2/13/2017 13:30	2.4314	0.4487	1667.9142	7534.6	0.2214
R3	0.0146	15.00	2/17/2017 3:04	41460	2764.0000	2/13/2017 13:30	2.4280	0.6933	1642.0718	7534.6	0.2179
R4	0.0204	15.00	2/17/2017 2:46	42588	2839.2000	2/13/2017 13:30	2.4245	0.7265	1611.9006	7534.6	0.2139
R5	0.0302	15.00	2/17/2017 2:29	48706	3247.0667	2/13/2017 13:30	2.4211	0.8604	1558.7293	7534.6	0.2069
R6	0.0493	15.00	2/17/2017 2:12	42196	2813.0667	2/13/2017 13:30	2.4178	0.9364	1242.5662	7534.6	0.1649
R7	0.0651	15.00	2/17/2017 1:55	40652	2710.1333	2/13/2017 13:30	2.4143	0.9274	1210.4667	7534.6	0.1607
R8	0.0990	15.00	2/17/2017 1:33	35742	2382.8000	2/13/2017 13:30	2.4099	0.9402	1051.6799	7534.6	0.1396



Alpha Beta Calibration Verifications

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
0	97.69%	98.94%	99.54%	98.72%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Count Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
0	102.60%	99.97%	104.13%	102.24%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
0	5.149	5.017	5.226

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013						
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery	Beta Activity	2009.34 pCi
1	97.44%	101.03%	102.37%	100.28%		

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
1	102.26%	104.17%	101.82%	102.75%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
1	5.132	5.228	5.11

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
2	97.49%	99.29%	100.73%	99.17%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512 (Rad12-0043)
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
2	103.00%	102.02%	100.81%	101.94%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
2	5.169	5.12	5.059

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
3	98.34%	99.19%	98.84%	98.79%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512 (Rad12-0043)
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
3	102.08%	100.25%	100.35%	100.89%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
3	5.123	5.031	5.036

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
4	99.78%	99.98%	101.63%	100.46%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512 (Rad12-0043)
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
4	100.21%	101.25%	102.86%	101.44%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
4	5.029	5.081	5.162

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Orange Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
11	98.24%	99.68%	98.09%	98.67%

Beta Activity 2009.34 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512 (Rad12-0043)
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	1/24/2013		(or date at which you wish to determine activity)
Elapsed Time:	56.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.996278064		
Corrected Activity:	2230.367701	dpm	
Decay Activity (Sr/Y-90)	4460.735402	dpm	2009.34 pCi

ICV is for Gross Alpha

Orange Alpha ICV 2015				
				Mean
	Low Mass	Medium Mass	High Mass	Recovery
Detector	Recovery	Recovery	Recovery	
11	105.09%	104.79%	102.12%	104.00%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
11	5.274	5.259	5.125

ICV is for Gross Alpha

Protean Alpha ICV - 2015				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
15	104.97%	104.41%	104.39%	104.59%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153007

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
15	5.27E+00	5.24E+00	5.24E+00

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Protean Beta ICV - 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
15	97.91%	97.45%	99.00%	98.12%

Beta Activity 2000.929 pCi

Beta Activity 2000.796 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	3/28/2013		(or date at which you wish to determine activity)
Elapsed Time:	119.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.992107441		
Corrected Activity:	2221.030929	dpm	
Decay Activity (Sr/Y-90)	4442.061857	dpm	2000.929 pCi

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	3/29/2013		(or date at which you wish to determine activity)
Elapsed Time:	120.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.992041382		
Corrected Activity:	2220.883041	dpm	
Decay Activity (Sr/Y-90)	4441.766083	dpm	2000.796 pCi

Ra-226 Calibration Verifications

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
9	89.09%	96.83%	87.96%	91.29%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
9	Low Mass (0.0133g)	3.375E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.668E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.332E+03	pCi/mL

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
10	86.82%	95.56%	86.69%	89.69%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
10	Low Mass (0.0133g)	3.289E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.620E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.284E+03	pCi/mL

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
11	88.70%	97.09%	88.62%	91.47%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
11	Low Mass (0.0133g)	3.360E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.678E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.357E+03	pCi/mL

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
12	90.49%	98.02%	90.70%	93.07%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
12	Low Mass (0.0133g)	3.428E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.713E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.436E+03	pCi/mL

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
13	88.72%	96.59%	90.10%	91.80%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
13	Low Mass (0.0133g)	3.361E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.659E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.413E+03	pCi/mL

Ra226 ICV

Orange Ra226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
15	87.96%	96.33%	88.41%	90.90%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
15	Low Mass (0.0133g)	3.332E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.649E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.349E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
0	87.72%	95.14%	88.80%	90.55%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
0	Low Mass (0.0133g)	3.323E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.604E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.364E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
4	85.77%	94.90%	88.01%	89.56%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
4	Low Mass (0.0133g)	3.249E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.595E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.334E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
5	86.56%	94.50%	91.07%	90.71%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
5	Low Mass (0.0133g)	3.279E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.580E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.450E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
6	86.82%	94.40%	89.28%	90.17%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
6	Low Mass (0.0133g)	3.289E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.576E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.382E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
7	86.56%	96.43%	87.67%	90.22%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
7	Low Mass (0.0133g)	3.279E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.653E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.321E+03	pCi/mL

VOA Calibration Calculations:

Initial Calibration 6/21/2018
Instrument A3UX19

Chloroform

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
0.5	13526	1004605	20	0.5386	0.5386
1	25187	935888	20	0.5382	0.5382
10	250264	984619	20	0.5083	0.5083
20	486695	948753	20	0.5130	0.513
40	952636	966787	20	0.4927	0.4927
60	1488550	956535	20	0.5187	0.5187
80	1968856	982919	20	0.5008	0.5008
			Average	0.5158	0.5158
			Standard Deviation	0.0176	
			RSD	0.0341	
			%RSD	3.4086	3.4

Continuing Calibration 07/03/2018@ 15:36
Instrument A3UX19

Chloroform

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
20	378705	717785	20	0.5276	2.288	0.5276	2.3

MSA
SDG 240-97405

SAMPLE IDENTIFICATION	MSA-MW-52D-062618
COMPOUND	Chloroform
COMPOUND AREA	3243
INTERNAL STANDARD AMOUNT (ng)	20
DILUTION FACTOR	500
INTERNAL STANDARD AREA	705424
AVERAGE RRF	0.5158
VOLUME OF SAMPLE	5
VOLUME OF EXTRACT	5.00
CONCENTRATION =	89.13 ug/L

SVOA Calibration Calculations:

Initial Calibration 6/25/2018
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
50	3958	110516	400	0.2865	0.2865
100	7505	104011	400	0.2886	0.2886
200	13885	108960	400	0.2549	0.2549
500	34406	103106	400	0.2670	0.2670
1000	88628	114358	400	0.3100	0.3100
1500	128305	115462	400	0.2963	0.2963
2000	156265	116805	400	0.2676	0.2676
2500	217094	118937	400	0.2920	0.2920
			Average	0.28286	0.2829
			Standard Deviation	0.0182	
			RSD	0.0644	
			%RSD	6.43553	6.4

Continuing Calibration 07/02/2018 @ 12:50
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1000	102991	150324	400	0.2741	-3.12806	0.2741	-3.1

MSA Groundwater
SDG 240-97405-1

SAMPLE IDENTIFICATION	DMW-3S-062118
COMPOUND	1,4-Dioxane
COMPOUND AREA	52784
INTERNAL STANDARD AMOUNT (ng)	400
DILUTION FACTOR	20
INTERNAL STANDARD AREA	135284
AVERAGE RRF	0.2829
VOLUME OF SAMPLE	250
VOLUME OF EXTRACT	5
CONCENTRATION =	220.6698 ug/L

Calculation DRO	**Sample**		
	MSA-MW-52S-062618		
Target Analyte	C10-C32		
Analyte Response	243314912		
TPH Response	850533.076	ug/l	
Dilution Factor (DF)	1		
Volume Sample	0.28	L	
Final Volume	5	ml	
	on column amount	286.0734272	
		5108.45	ug/L

Sample Report

Sample Table

Sample Name	240-97405-f-2-a
Data File Name	022SMPL.d
Data Path Name	D:\Analytical Runs\I10062318A.b
Acq Date Time	2018-06-23T16:31:12-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

DMW-6I-062018

TOTAL COBALT 59 ug/L

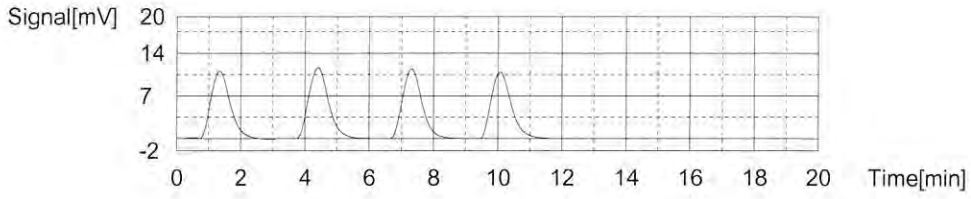
QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	6	2	NoGas	102.034	102.034	3.43	1261937	0.01	10000	
Be	9	6	2	NoGas	3.873	3.873	3.83	13599	0.03	2000	
B	11	45	2	NoGas	209.668	209.668	1.20	321721	0.07	300	
Na	23	45	1	He	32673.138	32673.138	0.70	30228926	0.11	500000	
Mg	24	45	1	He	36622.300	36622.300	0.92	19173383	0.19	500000	
Al	27	45	1	He	7926.579	7926.579	0.73	2586170	0.31	200000	
K	39	45	1	He	9399.283	9399.283	1.06	7965811	0.12	500000	
Ca	44	45	1	He	34485.192	34485.192	0.40	584620	5.90	500000	
Ti	47	45	1	He	13.439	13.439	27.49	2310	0.58	2500	
V	51	45	1	He	1.507	1.507	14.72	5388	0.03	10000	
Cr	52	45	1	He	3.217	3.217	1.04	12949	0.02	10000	
Mn	55	45	1	He	4645.085	4645.085	0.72	14861623	0.03	10000	
Fe	56	45	1	He	27898.833	27898.833	1.27	90946203	0.03	200000	
Co	59	45	1	He	59.244	59.244	0.89	250981	0.02	5000	
Ni	60	103	1	He	52.089	52.089	2.24	60055	0.09	10000	
Cu	63	45	1	He	22.587	22.587	0.68	56485	0.04	10000	
Zn	66	45	1	He	197.777	197.777	0.40	120733	0.16	10000	
As	75	103	1	He	0.983	0.983	33.25	1093	0.09	10000	
Se	78	45	1	He	1.125	1.125	7.46	594	0.19	10000	
Sr	88	103	1	He	193.067	193.067	1.99	910161	0.02	10000	
Mo	95	103	1	He	0.426	0.426	3.95	597	0.07	2000	
Ag	107	103	1	He	0.026	0.026	31.79	94	0.03	100	
Cd	111	115	1	He	4.644	4.644	1.30	2967	0.16	4000	
Sn	118	115	1	He	1.949	1.949	21.72	3827	0.05	2000	
Sb	123	115	1	He	1.629	1.629	27.87	2777	0.06	200	
Ba	137	115	1	He	16.026	16.026	1.72	10881	0.15	10000	
W	182	159	1	He	0.479	0.479	15.41	1722	0.03	2500	
Tl	205	165	1	He	0.343	0.343	3.96	1849	0.02	2000	
Pb	208	165	1	He	1.644	1.644	2.24	13220	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1479016	3.26	1762539	83.91	60	120	
Sc	45	1	He	1182781	0.81	1255143	94.23	60	120	
Sc	45	2	NoGas	5775088	1.09	6143715	94.00	60	120	
Rh	103	1	He	1444313	2.54	1460219	98.91	60	120	
In	115	1	He	972291	0.38	988471	98.36	60	120	
Tb	159	1	He	1598288	1.86	1525868	104.75	60	120	
Ho	165	1	He	1671875	0.43	1658558	100.80	60	120	
Bi	209	1	He	1051213	1.13	1077652	97.55	60	120	

Mean Area 47.77
Mean Conc. 9.634mg/L



Sample

Sample Name: 240-97593-a-5
Sample ID: Untitled
Origin: 9060A NPOC.met
Status Completed
Chk. Result

Sample DMW-9D-062218

DOC reported result 2.4 mg/L

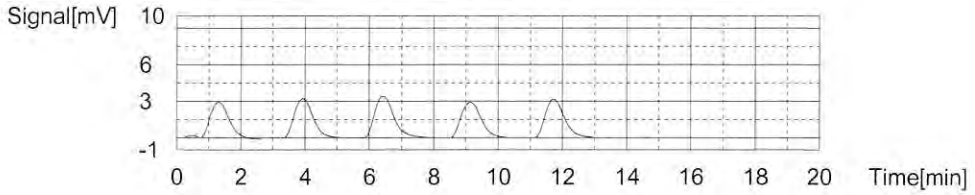
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.419mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.43	2.372mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 1:38:44 PM
2	12.91	2.471mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 1:41:25 PM
3	13.85	2.664mg/L	50uL	1	E	NPOC.2018_07_06_11_49_23.cal	7/9/2018 1:44:13 PM
4	12.47	2.380mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 1:46:59 PM
5	12.83	2.454mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 1:49:39 PM

Mean Area 12.66
Mean Conc. 2.419mg/L



Sample

Sample Name: 240-97593-a-6
Sample ID: Untitled
Origin: 9060A NPOC.met
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	111.7	22.77mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 2:02:26 PM
2	101.1	20.59mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 2:05:40 PM
3	101.8	20.74mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 2:08:47 PM
4	102.5	20.88mg/L	50uL	1		NPOC.2018_07_06_11_49_23.cal	7/9/2018 2:11:57 PM

Sample Calculation
MSA
240-97409-1

SAMPLE ID	DMW-6D-0620118			
Total Alpha Radium				
Corrected Count Rate	2.581			
Conversion factor	2.22			
Efficiency	0.19643			
Volume (L)	0.9994	Total Alpha Radium =	2.84	pCi/L
Carrier yield	0.888			
Ingrowth	2.35			

TETRA TECH INTERNAL CORRESPONDENCE

TO: **S. BRENNER** **DATE:** **AUGUST 24, 2018**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / 1,4-DIOXANE / DISSOLVED ORGANIC GASES / DRO / GRO / TOTAL AND DISSOLVED METALS / PERCHLORATE / MISCELLANEOUS PARAMETERS**
MSA – 2018 GW SW MONITORING – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-97836-1

SAMPLES: 21 / Aqueous / VOC / 1,4-Dioxane / Total and Dissolved Metals

DMW-4D-062918	DMW-4I-062918	DMW-4S-062918
MSA-MW-46D-062818	MSA-MW-46I-062818	MSA-MW-46S-062818
MSA-MW-47D-062718	MSA-MW-47I-062718	MSA-MW-47S-062718
MSA-MW-48D-062918	MSA-MW-48I-062918	MSA-MW-48S-062918
MSA-MW-49D-062818	MSA-MW-49I-062818	MSA-MW-49S-062818
MSA-MW-51D-062718	MSA-MW-51I-062718	MSA-MW-51S-062718
TB-062718	TB-062818	TB-062918

6 / Aqueous / DRO / GRO

DMW-4S-062918	MSA-MW-46S-062818	MSA-MW-47S-062718
MSA-MW-48S-062918	MSA-MW-49S-062818	MSA-MW-51S-062718

17 / Aqueous / Perchlorate

DMW-4D-062918	DMW-4I-062918	MSA-MW-46D-062818
MSA-MW-46I-062818	MSA-MW-46S-062818	MSA-MW-47D-062718
MSA-MW-47I-062718	MSA-MW-47S-062718	MSA-MW-48D-062918
MSA-MW-48I-062918	MSA-MW-48S-062918	MSA-MW-49D-062818
MSA-MW-49I-062818	MSA-MW-49S-062818	MSA-MW-51D-062718
MSA-MW-51I-062718	MSA-MW-51S-062718	

3 / Aqueous / Dissolved Organic Gases / Total Select Metals / Miscellaneous Parameters

MSA-MW-48D-062918	MSA-MW-48I-062918	MSA-MW-48S-062918

OVERVIEW

The sample set for MSA-2018 GW SW Monitoring, SDG 240-97836-1, consists of eighteen (18) aqueous environmental samples and three (3) trip blanks. Samples were analyzed for volatile organic compounds (VOCs), 1,4-dioxane, diesel range organics (DRO), gasoline range organics (GRO), total and dissolved metals, perchlorate, dissolved organic gases, and miscellaneous parameters (alkalinity, ammonia, chloride, dissolved organic carbon [DOC], nitrate-N, nitrite-N, sulfate, and total dissolved solids [TDS]). Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on June 27, 28, and 29, 2018, and analyzed by TestAmerica. Analyses were conducted in accordance with SW-846 Methods 8260C (for VOC), 8270D (for 1,4-dioxane), 8015C (for DRO and GRO), 7470A and 6010C/6020A (for mercury and remaining metals, respectively), 9056A (for ions), and 9060A (for DOC) as well as EPA Method 6850 (for perchlorate), Method RSK-175 (for

dissolved organic gases), and Standard Methods 2320B-1997 (for alkalinity), 4500 NH3 C-1997 (for ammonia), and 2540C (for TDS) analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip blank results, surrogate spike recoveries, interference check standards, laboratory control sample/laboratory control sample duplicate results, matrix spike/matrix spike duplicate results, internal standard recoveries, ICP serial dilution results, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC initial calibration performed on 07/06/18 on instrument A3UX16 had a relative standard deviation (%RSD) that was greater than the 20% quality control limit for hexachlorobutadiene. The following VOC samples were affected: TB-062818, MSA-MW-49D-062818, MSA-MW-49I-062818, MSA-MW-49S-062818, MSA-MW-46S-062818, MSA-MW-46I-062818, MSA-MW-46D-062818, TB-062918, MSA-MW-48D-062918, MSA-MW-48I-062918, DMW-4S-062918, DMW-4I-062918, DMW-4D-062918, and MSA-MW-48S-062918. The non-detected results for these analytes were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration performed on 07/06/18 at 10:42 on instrument A3UX16 had percent differences (%Ds) that were greater than the 20% quality control limit for carbon disulfide and hexachlorobutadiene. VOC samples TB-062818, MSA-MW-49D-062818, MSA-MW-49I-062818, MSA-MW-49S-062818, MSA-MW-46S-062818, MSA-MW-46I-062818, and MSA-MW-46D-062818 were affected. The non-detected results for these analytes were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration performed on 07/12/18 at 09:25 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane, n-butylbenzene, and hexachlorobutadiene. VOC samples TB-062918, MSA-MW-48D-062918, MSA-MW-48I-062918, DMW-4S-062918, DMW-4I-062918, and DMW-4D-062918 were affected. The non-detected results for these analytes were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration performed on 07/13/18 at 09:29 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for n-butylbenzene and hexachlorobutadiene. VOC sample MSA-MW-48S-062918 was affected. The non-detected results for these analytes were qualified as estimated (UJ) in the affected sample.

- The VOC continuing calibration performed on 07/02/18 at 15:42 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for 2-chloroethyl vinyl ether, cis-1,3-dichloropropene, and 4-methyl-2-pentanone. VOC samples TB-062718 and MSA-MW-51D-062718 were affected. No action was necessary for 2-chloroethyl vinyl ether as results for this analyte were rejected in the affected samples due to preservation noncompliance, as noted previously. The non-detected results for 4-methyl-2-pentanone and cis-1,3-dichloropropene were qualified as estimated (UJ) in the affected samples.

- The VOC continuing calibration performed on 07/03/18 at 15:36 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for acetone, tertiary-butyl alcohol, 2-chloroethyl vinyl ether, cis-1,3-dichloropropene, 4-methyl-2-pentanone, trans-1,3-dichlorpropene, and 2-hexanone. VOC samples MSA-MW-51I-062718, MSA-MW-51S-062718, and MSA-MW-47S-062718 were affected. No action was necessary for 2-chloroethyl vinyl ether as results for this analyte were rejected in the affected samples due to preservation noncompliance, as noted previously. The detected and non-detected results for the remaining analytes were qualified as estimated (J and UJ, respectively) in the affected samples.

- The VOC continuing calibration performed on 07/04/18 at 11:16 on instrument A3UX19 had %Ds that were greater than the 20% quality control limit for tertiary-butyl alcohol, 2-chloroethyl vinyl ether, 4-methyl-2-pentanone, and 2-hexanone. VOC samples MSA-MW-47I-062718 and MSA-MW-47D-062718 were affected. No action was necessary for 2-chloroethyl vinyl ether as results for this analyte were rejected in the affected samples due to preservation noncompliance, as noted previously. The non-detected results for the remaining analytes were qualified as estimated (UJ) in the affected samples.

- The following VOC analytes were detected in the trip blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > Reporting Limit (RL)
Tertiary-butyl alcohol	17 ug/L(1)	< RL
Chloromethane	0.45 ug/L(2)	< RL
Tertiary-butyl alcohol	14 ug/L(2)	< RL
2-Butanone	6.8 ug/L(3)	< RL
2-Hexanone	0.75 ug/L(3)	< RL
Acetone	15 ug/L(3)	> RL
Tertiary-butyl alcohol	15 ug/L(3)	< RL

1 - Maximum concentration detected in trip blank TB-062718 affecting samples MSA-MW-47D-062718, MSA-MW-47I-062718, MSA-MW-47S-062718, MSA-MW-51D-062718, MSA-MW-51I-062718, and MSA-MW-51S-062718.
2 - Maximum concentration detected in trip blank TB-062818 affecting samples MSA-MW-46D-062818, MSA-MW-46I-062818, MSA-MW-46S-062818, MSA-MW-49D-062818, MSA-MW-49I-062818, and MSA-MW-49S-062818.
3 - Maximum concentration detected in trip blank TB-062918 affecting samples DMW-4D-062918, DMW-4I-062918, DMW-4S-062918, MSA-MW-48D-062918, MSA-MW-48I-062918, and MSA-MW-48S-062918.

Associated detected results for tertiary-butyl alcohol and chloromethane that were less than the RLs were qualified as non-detected (U).

- A tentatively identified compound (TIC) search was performed for the compound chlorodifluoromethane. Non-detected results were qualified as estimated (UJ) because the compound was not calibrated and the detection limit is an estimated value.

- TICs were detected in two of the samples from this SDG. The GC/MS instrument was not calibrated for these TICs; therefore, the detected compounds were qualified as either rejected (R) for column bleed or as estimated (NJ) and assumed to be presumptively present.

- The following metals were detected in the laboratory calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > RL
Dissolved Selenium	1.11 ug/L(1)	< RL
Copper	3.03 ug/L(2)	> RL
Dissolved Copper	3.03 ug/L(2)	> RL
Beryllium	0.399 ug/L(3)	< RL
Dissolved Beryllium	0.399 ug/L(3)	< RL
Lead	0.489 ug/L(3)	< RL
Dissolved Lead	0.489 ug/L(3)	< RL

1 - Maximum concentration detected in calibration blank analyzed on 07/04/18 at 01:22 affecting total and dissolved metals samples MSA-MW-46I-062818, MSA-MW-46S-062818, MSA-MW-49D-062818, MSA-MW-49I-062818, and MSA-MW-49S-062818 and total metals sample MSA-MW-46D-062818.
2 - Maximum concentration detected in method blank associated with preparation batch 240-334114 affecting total and dissolved metals samples MSA-MW-47D-062718, MSA-MW-47I-062718, MSA-MW-47S-062718, MSA-MW-51D-062718, MSA-MW-51I-062718, and MSA-MW-51S-062718.
3 - Maximum concentration detected in method blank associated with preparation batch 240-334389 affecting total and dissolved metals samples DMW-4D-062918, DMW-4I-062918, DMW-4S-062918, MSA-MW-48D-062918, MSA-MW-48I-062918, and MSA-MW-48S-062918.

Associated detected results below the RL for selenium, beryllium, and lead and less than 10x the blank concentration for copper were qualified as non-detected (U) due to blank contamination.

- The metals matrix spike (MS)/matrix spike duplicate (MSD) analysis performed on sample MSA-MW-48D-062918 had MS and MSD percent recoveries (%Rs) that were less than the laboratory quality control limits (but greater than 30%) for total and dissolved manganese. No post-digestion spike was included in the laboratory report. Detected results for manganese were qualified as biased low (J-) in all total and dissolved metals samples.

- The metals serial dilution performed on sample MSA-MW-48D-062918 had %Ds that were greater than the 10% quality control limit for calcium and sodium. Detected results for sodium were qualified as estimated (J) in all samples (i.e., MSA-MW-48D-062918, MSA-MW-48I-062918, and MSA-MS-48S-062918).

- Detected results reported below the RL but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Non-detected results were reported to the MDL.

The following VOC samples were analyzed at dilution factors greater than 1:

Sample	Dilution Factor
DMW-4D-062918	50
DMW-4I-062918	100
DMW-4S-062918	25
MSA-MW-46I-062818	20
MSA-MW-47D-062718	40
MSA-MW-47I-062718	25
MSA-MW-47S-062718	2.5
MSA-MW-48D-062918	20
MSA-MW-48I-062918	250
MSA-MW-48S-062918	4
MSA-MW-49D-062818	166.67
MSA-MW-49I-062818	125
MSA-MW-49S-062818	20
MSA-MW-51D-062718	50
MSA-MW-51S-062718	100

The VOC laboratory control sample (LCS) associated with preparation batch 240-334645 had a %R that was greater than the laboratory quality control limits for tertiary-butyl alcohol. Samples MSA-MW-51I-062718, MSA-MW-51S-062718, and MSA-MW-47S-062718 were associated with this LCS. No qualification was necessary because the detected result for tertiary-butyl alcohol in sample MSA-MW-47S-062718 was previously qualified as non-detected due to trip blank contamination, and no qualification was necessary for associated non-detected results.

The VOC LCS associated with preparation batch 240-334715 had a %R that was greater than the laboratory quality control limits for tertiary-butyl alcohol. Samples MSA-MW-47I-062718 and MSA-MW-47D-062718 were associated with this LCS. No qualification was necessary because detected results for tertiary-butyl alcohol in these samples were previously qualified as non-detected due to trip blank contamination, and no qualification was necessary for associated non-detected results.

The LCS summary Form III for this SDG does not include several target analytes. No action was taken on this basis.

The TIC compound isobutyl alcohol was present in the laboratory method blank associated with preparation batch 240-335235 at a concentration of 6.16 ug/L. No validation action was required as isobutyl alcohol was not reported for any of the samples.

1,4-Dioxane results in samples MSA-MW-47I-062718 and MSA-MW-48I-062918 were analyzed at dilution factors of 5 and 2, respectively.

The 8270D analysis had a surrogate %R for 2,4,6-tribromophenol (TBP) that was less than the laboratory quality control limits (but greater than 10%) for sample MSA-MW-51I-062718. No action was necessary because the only analyte for this analysis, 1,4-dioxane, is not associated with this surrogate.

Sulfate in samples MSA-MW-48D-062918, MSA-MW-48I-062918, and MSA-MW-48S-062918 was analyzed at a dilution factor of 5.

The following miscellaneous parameters were detected in the laboratory method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	< or > RL
Alkalinity	3.00 ug/L(1)	< RL
DOC	0.674 ug/L(2)	< RL

1 - Maximum concentration detected in method blank associated with preparation batch 240-335871 affecting all alkalinity samples.
2 - Maximum concentration detected in method blank associated with preparation batch 490-529167 affecting all DOC samples.

No qualification was necessary because associated detected results were greater than the RL.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several VOC results were qualified due to calibration noncompliance. Some metals results were qualified due to laboratory blank contamination. Metals results for one analyte were qualified due to serial dilution noncompliance.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Some VOC results were qualified as non-detected due to trip blank contamination. Non-detected results for the TIC chlorodifluoromethane were qualified as estimated (UJ) because the GC/MS was not calibrated for this compound. TICs were qualified as presumptively present. Detected results reported below the RL but above the MDL were qualified as estimated. Metals results for one analyte were qualified due to MS/MSD noncompliance.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the USEPA "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

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Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: OV	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		7	U		14	U		3.5	U		0.14	U	
1,1,1-TRICHLOROETHANE		12	U		24	U		6	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		6.5	U		13	U		3.3	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		21	U		41	U		10	U		0.41	U	
1,1-DICHLOROETHANE		8.5	U		17	U		4.3	U		0.17	U	
1,1-DICHLOROETHENE		9.5	U		19	U		16	J	P	0.19	U	
1,1-DICHLOROPROPENE		7	U		14	U		3.5	U		0.14	U	
1,2,3-TRICHLOROBENZENE		27	U		54	U		14	U		0.54	U	
1,2,3-TRICHLOROPROPANE		12	U		24	U		6	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		7	U		14	U		3.5	U		0.14	U	
1,2,4-TRICHLOROBENZENE		13	U		26	U		6.5	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		3.5	U		7	U		1.8	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		46	U		91	U		23	U		0.91	U	
1,2-DIBROMOETHANE		6	U		12	U		3	U		0.12	U	
1,2-DICHLOROBENZENE		7.5	U		15	U		3.8	U		0.15	U	
1,2-DICHLOROETHANE		11	U		21	U		8.5	J	P	0.6	J	P
1,2-DICHLOROPROPANE		7.5	U		15	U		3.8	U		0.15	U	
1,3-DICHLOROBENZENE		7.5	U		15	U		3.8	U		0.15	U	
1,3-DICHLOROPROPANE		11	U		21	U		5.3	U		0.21	U	
1,4-DICHLOROBENZENE		8	U		16	U		4	U		0.16	U	
2,2-DICHLOROPROPANE		16	U		31	U		7.8	U		0.31	U	
2-BUTANONE		58	U		120	U		29	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		13	UR	M	26	UR	M	6.5	UR	M	0.26	UR	M
2-CHLOROTOLUENE		7.5	U		15	U		3.8	U		0.15	U	
2-HEXANONE		27	U		54	U		14	U		0.54	U	
4-CHLOROTOLUENE		4.5	U		9	U		2.3	U		0.09	U	
4-ISOPROPYLTOLUENE		6.5	U		13	U		3.3	U		0.13	U	
4-METHYL-2-PENTANONE		21	U		42	U		11	U		0.42	U	
ACETONE		270	U		540	U		140	U		5.4	U	
BENZENE		6.5	U		13	U		3.3	U		0.13	U	
BROMOBENZENE		6	U		12	U		3	U		0.12	U	
BROMOCHLOROMETHANE		7	U		14	U		3.5	U		0.14	U	
BROMODICHLOROMETHANE		8.5	U		17	U		4.3	U		0.17	U	
BROMOFORM		38	U		76	U		19	U		0.76	U	
BROMOMETHANE		21	U		42	U		11	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		2.8	U		0.14	U		5.6	U		3.5	U	
1,1,1-TRICHLOROETHANE		4.8	U		0.24	U		9.6	U		6	U	
1,1,2,2-TETRACHLOROETHANE		2.6	U		0.13	U		5.2	U		3.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		8.2	U		0.41	U		16	U		10	U	
1,1-DICHLOROETHANE		3.4	U		0.75	J	P	6.8	U		4.3	U	
1,1-DICHLOROETHENE		3.8	U		0.19	U		7.6	U		11	J	P
1,1-DICHLOROPROPENE		2.8	U		0.14	U		5.6	U		3.5	U	
1,2,3-TRICHLOROBENZENE		11	U		0.54	U		22	U		14	U	
1,2,3-TRICHLOROPROPANE		4.8	U		0.24	U		9.6	U		6	U	
1,2,3-TRIMETHYLBENZENE		2.8	U		0.14	U		5.6	U		3.5	U	
1,2,4-TRICHLOROBENZENE		5.2	U		0.26	U		10	U		14	J	P
1,2,4-TRIMETHYLBENZENE		1.4	U		0.07	U		2.8	U		1.8	U	
1,2-DIBROMO-3-CHLOROPROPANE		18	U		0.91	U		36	U		23	U	
1,2-DIBROMOETHANE		2.4	U		0.12	U		4.8	U		3	U	
1,2-DICHLOROBENZENE		3	U		0.15	U		6	U		3.8	U	
1,2-DICHLOROETHANE		22			0.21	U		13	J	P	39		
1,2-DICHLOROPROPANE		3	U		0.15	U		6	U		3.8	U	
1,3-DICHLOROBENZENE		3	U		0.15	U		6	U		3.8	U	
1,3-DICHLOROPROPANE		4.2	U		0.21	U		8.4	U		5.3	U	
1,4-DICHLOROBENZENE		3.2	U		0.16	U		6.4	U		5.5	J	P
2,2-DICHLOROPROPANE		6.2	U		0.31	U		12	U		7.8	U	
2-BUTANONE		23	U		1.2	U		46	U		29	U	
2-CHLOROETHYL VINYL ETHER		5.2	UR	M	0.26	UR	M	10	UR	M	6.5	UR	M
2-CHLOROTOLUENE		3	U		0.15	U		6	U		3.8	U	
2-HEXANONE		11	U		0.54	U		22	UJ	C	14	UJ	C
4-CHLOROTOLUENE		1.8	U		0.09	U		3.6	U		2.3	U	
4-ISOPROPYLTOLUENE		2.6	U		0.13	U		5.2	U		3.3	U	
4-METHYL-2-PENTANONE		8.4	U		0.42	U		17	UJ	C	11	UJ	C
ACETONE		110	U		5.4	U		220	U		140	U	
BENZENE		4.8	J	P	0.13	U		5.2	U		7.4	J	P
BROMOBENZENE		2.4	U		0.12	U		4.8	U		3	U	
BROMOCHLOROMETHANE		2.8	U		0.14	U		5.6	U		3.5	U	
BROMODICHLOROMETHANE		3.4	U		0.17	U		6.8	U		4.3	U	
BROMOFORM		15	U		0.76	U		30	U		19	U	
BROMOMETHANE		8.4	U		0.42	U		17	U		11	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: OV	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.35	U		2.8	U		35	U		0.56	U	
1,1,1-TRICHLOROETHANE		0.6	U		4.8	U		60	U		0.96	U	
1,1,2,2-TETRACHLOROETHANE		0.33	U		2.6	U		33	U		0.52	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1	U		8.2	U		100	U		1.6	U	
1,1-DICHLOROETHANE		0.43	U		3.4	U		43	U		0.68	U	
1,1-DICHLOROETHENE		1.3	J	P	3.8	U		48	U		0.76	U	
1,1-DICHLOROPROPENE		0.35	U		2.8	U		35	U		0.56	U	
1,2,3-TRICHLOROBENZENE		1.4	U		11	U		140	U		2.2	U	
1,2,3-TRICHLOROPROPANE		0.6	U		4.8	U		60	U		0.96	U	
1,2,3-TRIMETHYLBENZENE		0.35	U		2.8	U		35	U		0.56	U	
1,2,4-TRICHLOROBENZENE		0.65	U		9.9	J	P	65	U		1	U	
1,2,4-TRIMETHYLBENZENE		0.18	U		1.4	U		18	U		0.28	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.3	U		18	U		230	U		3.6	U	
1,2-DIBROMOETHANE		0.3	U		2.4	U		30	U		0.48	U	
1,2-DICHLOROBENZENE		0.38	U		3	U		38	U		0.6	U	
1,2-DICHLOROETHANE		4.7			4.4	J	P	53	U		0.84	U	
1,2-DICHLOROPROPANE		0.38	U		3	U		38	U		0.6	U	
1,3-DICHLOROBENZENE		0.38	U		5.7	J	P	38	U		0.6	U	
1,3-DICHLOROPROPANE		0.53	U		4.2	U		53	U		0.84	U	
1,4-DICHLOROBENZENE		0.4	U		39			50	J	P	0.95	J	P
2,2-DICHLOROPROPANE		0.78	U		6.2	U		78	U		1.2	U	
2-BUTANONE		2.9	U		23	U		290	U		4.6	U	
2-CHLOROETHYL VINYL ETHER		0.65	UR	M	5.2	UR	M	65	UR	M	1	UR	M
2-CHLOROTOLUENE		0.38	U		3	U		38	U		0.6	U	
2-HEXANONE		1.4	UJ	C	11	U		140	U		2.2	U	
4-CHLOROTOLUENE		0.23	U		1.8	U		23	U		0.36	U	
4-ISOPROPYLTOLUENE		0.33	U		2.6	U		33	U		0.52	U	
4-METHYL-2-PENTANONE		1.1	UJ	C	8.4	U		110	U		1.7	U	
ACETONE		14	UJ	C	110	U		1400	U		22	U	
BENZENE		1.1	J	P	2.6	U		33	U		1.1	J	P
BROMOBENZENE		0.3	U		2.4	U		30	U		0.48	U	
BROMOCHLOROMETHANE		0.35	U		2.8	U		35	U		0.56	U	
BROMODICHLOROMETHANE		0.43	U		3.4	U		43	U		0.68	U	
BROMOFORM		1.9	U		15	U		190	U		3	U	
BROMOMETHANE		1.1	U		8.4	U		110	U		1.7	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		23	U		18	U		2.8	U		7	U	
1,1,1-TRICHLOROETHANE		68	J	P	30	U		4.8	U		12	U	
1,1,2,2-TETRACHLOROETHANE		22	U		16	U		2.6	U		6.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		68	U		51	U		8.2	U		21	U	
1,1-DICHLOROETHANE		28	U		26	J	P	4	J	P	8.5	U	
1,1-DICHLOROETHENE		150	J	P	130			17	J	P	9.5	U	
1,1-DICHLOROPROPENE		23	U		18	U		2.8	U		7	U	
1,2,3-TRICHLOROBENZENE		90	U		68	U		11	U		27	U	
1,2,3-TRICHLOROPROPANE		40	U		30	U		4.8	U		12	U	
1,2,3-TRIMETHYLBENZENE		23	U		18	U		2.8	U		7	U	
1,2,4-TRICHLOROBENZENE		43	U		33	U		5.2	U		13	U	
1,2,4-TRIMETHYLBENZENE		12	U		8.8	U		1.4	U		3.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		150	U		110	U		18	U		46	U	
1,2-DIBROMOETHANE		20	U		15	U		2.4	U		6	U	
1,2-DICHLOROBENZENE		25	U		19	U		3	U		7.5	U	
1,2-DICHLOROETHANE		35	U		26	U		6	J	P	11	U	
1,2-DICHLOROPROPANE		25	U		19	U		3	U		7.5	U	
1,3-DICHLOROBENZENE		25	U		19	U		3	U		7.5	U	
1,3-DICHLOROPROPANE		35	U		26	U		4.2	U		11	U	
1,4-DICHLOROBENZENE		27	U		20	U		3.2	U		8	U	
2,2-DICHLOROPROPANE		52	U		39	U		6.2	U		16	U	
2-BUTANONE		190	U		150	U		23	U		58	U	
2-CHLOROETHYL VINYL ETHER		43	UR	M	33	UR	M	5.2	UR	M	13	UR	M
2-CHLOROTOLUENE		25	U		19	U		3	U		7.5	U	
2-HEXANONE		90	U		68	U		11	U		27	U	
4-CHLOROTOLUENE		15	U		11	U		1.8	U		4.5	U	
4-ISOPROPYLTOLUENE		22	U		16	U		2.6	U		6.5	U	
4-METHYL-2-PENTANONE		70	U		53	U		8.4	U		21	UJ	C
ACETONE		900	U		680	U		110	U		4200		
BENZENE		22	U		16	U		2.6	U		6.5	U	
BROMOBENZENE		20	U		15	U		2.4	U		6	U	
BROMOCHLOROMETHANE		23	U		18	U		2.8	U		7	U	
BROMODICHLOROMETHANE		28	U		21	U		3.4	U		8.5	U	
BROMOFORM		130	U		95	U		15	U		38	U	
BROMOMETHANE		70	U		53	U		8.4	U		21	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718			TB-062718			TB-062818		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4			240-97836-1			240-97912-1		
FRACTION: OV	SAMP_DATE	6/27/2018			6/27/2018			6/27/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		7	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		31	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		120	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	UJ	C	54	UJ	C	0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		9	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	UJ	C	42	UJ	C	0.42	UJ	C	0.42	U	
ACETONE		5.4	UJ	C	540	UJ	C	5.4	U		5.4	U	
BENZENE		0.13	U		13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		76	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	TB-062918		
SDG: 240-97836-1	LAB_ID	240-97969-1		
FRACTION: OV	SAMP_DATE	6/29/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U	
1,1-DICHLOROETHANE		0.17	U	
1,1-DICHLOROETHENE		0.19	U	
1,1-DICHLOROPROPENE		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U	
1,2-DIBROMOETHANE		0.12	U	
1,2-DICHLOROBENZENE		0.15	U	
1,2-DICHLOROETHANE		0.21	U	
1,2-DICHLOROPROPANE		0.15	U	
1,3-DICHLOROBENZENE		0.15	U	
1,3-DICHLOROPROPANE		0.21	U	
1,4-DICHLOROBENZENE		0.16	U	
2,2-DICHLOROPROPANE		0.31	U	
2-BUTANONE		6.8	J	P
2-CHLOROETHYL VINYL ETHER		0.26	UR	M
2-CHLOROTOLUENE		0.15	U	
2-HEXANONE		0.75	J	P
4-CHLOROTOLUENE		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U	
4-METHYL-2-PENTANONE		0.42	U	
ACETONE		15		
BENZENE		0.13	U	
BROMOBENZENE		0.12	U	
BROMOCHLOROMETHANE		0.14	U	
BROMODICHLOROMETHANE		0.17	U	
BROMOFORM		0.76	U	
BROMOMETHANE		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: OV	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		14	U		28	U		7	U		0.28	UJ	C
CARBON TETRACHLORIDE		13	U		26	U		6.5	U		0.26	U	
CHLOROBENZENE		7	U		14	U		3.5	U		0.14	U	
CHLORODIBROMOMETHANE		20	U		39	U		9.8	U		0.39	U	
CHLORODIFLUOROMETHANE		50	UJ	Q	100	UJ	Q	25	UJ	Q	1	UJ	Q
CHLOROETHANE		42	U		83	U		21	U		0.83	U	
CHLOROFORM		6.5	U		13	U		3.3	U		0.13	U	
CHLOROMETHANE		10	U		20	U		5	U		0.2	U	
CIS-1,2-DICHLOROETHENE		400			1100			190			11		
CIS-1,3-DICHLOROPROPENE		31	U		61	U		15	U		0.61	U	
DIBROMOMETHANE		4.5	U		9	U		2.3	U		0.09	U	
DICHLORODIFLUOROMETHANE		18	UJ	C	35	UJ	C	8.8	UJ	C	0.35	U	
DIISOPROPYL ETHER		8.5	U		17	U		4.3	U		0.17	U	
ETHYL TERT-BUTYL ETHER		7.5	U		15	U		3.8	U		0.15	U	
ETHYLBENZENE		5.5	U		11	U		2.8	U		0.11	U	
HEXACHLOROBUTADIENE		42	UJ	C	83	UJ	C	21	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		4.5	U		9	U		2.3	U		0.09	U	
M+P-XYLENES		4	U		8	U		2	U		0.08	U	
METHYL TERT-BUTYL ETHER		3.5	U		7	U		1.8	U		0.07	U	
METHYLENE CHLORIDE		130	U		260	U		66	U		2.6	U	
NAPHTHALENE		16	U		32	U		8	U		0.32	U	
N-BUTYLBENZENE		7	UJ	C	14	UJ	C	3.5	UJ	C	0.14	U	
N-PROPYLBENZENE		7.5	U		15	U		3.8	U		0.15	U	
O-XYLENE		4.5	U		9	U		2.3	U		0.09	U	
SEC-BUTYLBENZENE		6.5	U		13	U		3.3	U		0.13	U	
STYRENE		5	U		10	U		2.5	U		0.1	U	
TERT-AMYL METHYL ETHER		5.5	U		11	U		2.8	U		0.11	U	
TERT-BUTYLBENZENE		7	U		14	U		3.5	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		85	U		170	U		42	U		1.7	U	
TETRACHLOROETHENE		7.5	U		15	U		3.8	U		0.15	U	
TOLUENE		7	U		14	U		3.5	U		0.14	U	
TOTAL XYLENES		7.5	U		15	U		3.8	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		9.5	U		19	U		4.8	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		34	U		67	U		17	U		0.67	U	
TRICHLOROETHENE		1800			2100			770			38		

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		5.6	UJ	C	0.28	UJ	C	11	U		7	U	
CARBON TETRACHLORIDE		5.2	U		0.26	U		10	U		6.5	U	
CHLOROBENZENE		72			0.14	U		5.6	U		57		
CHLORODIBROMOMETHANE		7.8	U		0.39	U		16	U		9.8	U	
CHLORODIFLUOROMETHANE		20	UJ	Q	1	UJ	Q	40	UJ	Q	25	UJ	Q
CHLOROETHANE		17	U		0.83	U		33	U		21	U	
CHLOROFORM		2.6	U		0.13	U		20	J	P	23	J	P
CHLOROMETHANE		4	U		0.41	U	B	8	U		5	U	
CIS-1,2-DICHLOROETHENE		320			0.32	J	P	110			400		
CIS-1,3-DICHLOROPROPENE		12	U		0.61	U		24	U		15	U	
DIBROMOMETHANE		1.8	U		0.09	U		3.6	U		2.3	U	
DICHLORODIFLUOROMETHANE		7	U		0.35	U		14	U		8.8	U	
DIISOPROPYL ETHER		3.4	U		0.17	U		6.8	U		4.3	U	
ETHYL TERT-BUTYL ETHER		3	U		0.15	U		6	U		3.8	U	
ETHYLBENZENE		2.2	U		0.11	U		4.4	U		2.8	U	
HEXACHLOROBUTADIENE		17	UJ	C	0.83	UJ	C	33	U		21	U	
ISOPROPYLBENZENE		1.8	U		0.09	U		3.6	U		2.3	U	
M+P-XYLENES		1.6	U		0.08	U		3.2	U		2	U	
METHYL TERT-BUTYL ETHER		1.4	U		0.07	U		2.8	U		1.8	U	
METHYLENE CHLORIDE		52	U		2.6	U		100	U		66	U	
NAPHTHALENE		6.4	U		0.32	U		13	U		8	U	
N-BUTYLBENZENE		2.8	U		0.14	U		5.6	U		3.5	U	
N-PROPYLBENZENE		3	U		0.15	U		6	U		3.8	U	
O-XYLENE		1.8	U		0.09	U		3.6	U		2.5	J	P
SEC-BUTYLBENZENE		2.6	U		0.13	U		5.2	U		3.3	U	
STYRENE		2	U		0.1	U		4	U		2.5	U	
TERT-AMYL METHYL ETHER		2.2	U		0.11	U		4.4	U		2.8	U	
TERT-BUTYLBENZENE		2.8	U		0.14	U		5.6	U		3.5	U	
TERTIARY-BUTYL ALCOHOL		34	U		1.7	U		160	U	B	55	U	B
TETRACHLOROETHENE		3	U		0.15	U		6	U		3.8	U	
TOLUENE		2.8	U		0.14	U		5.6	U		3.5	U	
TOTAL XYLENES		3	U		0.15	U		6	U		3.8	U	
TRANS-1,2-DICHLOROETHENE		3.8	U		0.19	U		7.6	U		4.8	U	
TRANS-1,3-DICHLOROPROPENE		13	U		0.67	U		27	U		17	U	
TRICHLOROETHENE		510			0.1	J	P	1200			980		

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: OV	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.7	U		5.6	U		70	U		1.1	U	
CARBON TETRACHLORIDE		0.65	U		5.2	U		65	U		1	U	
CHLOROBENZENE		6.9			2.8	U		35	U		1.1	J	P
CHLORODIBROMOMETHANE		0.98	U		7.8	U		98	U		1.6	U	
CHLORODIFLUOROMETHANE		2.5	UJ	Q	20	UJ	Q	250	UJ	Q	4	UJ	Q
CHLOROETHANE		2.1	U		17	U		210	U		3.3	U	
CHLOROFORM		2.7			2.6	U		33	U		0.52	U	
CHLOROMETHANE		0.5	U		4	U		50	U		0.8	U	
CIS-1,2-DICHLOROETHENE		48			570			7200			1.2	J	P
CIS-1,3-DICHLOROPROPENE		1.5	UJ	C	12	U		150	U		2.4	U	
DIBROMOMETHANE		0.23	U		1.8	U		23	U		0.36	U	
DICHLORODIFLUOROMETHANE		0.88	U		7	UJ	C	88	UJ	C	1.4	U	
DIISOPROPYL ETHER		0.43	U		3.4	U		43	U		0.68	U	
ETHYL TERT-BUTYL ETHER		0.38	U		3	U		38	U		0.6	U	
ETHYLBENZENE		0.28	U		2.2	U		28	U		0.44	U	
HEXACHLOROBUTADIENE		2.1	U		17	UJ	C	210	UJ	C	3.3	UJ	C
ISOPROPYLBENZENE		0.23	U		1.8	U		23	U		0.36	U	
M+P-XYLENES		0.2	U		1.6	U		20	U		0.32	U	
METHYL TERT-BUTYL ETHER		0.18	U		1.4	U		18	U		0.28	U	
METHYLENE CHLORIDE		6.6	U		52	U		660	U		10	U	
NAPHTHALENE		0.8	U		6.4	U		80	U		1.3	U	
N-BUTYLBENZENE		0.35	U		2.8	UJ	C	35	UJ	C	0.56	UJ	C
N-PROPYLBENZENE		0.38	U		3	U		38	U		0.6	U	
O-XYLENE		0.23	U		1.8	U		23	U		0.36	U	
SEC-BUTYLBENZENE		0.33	U		2.6	U		33	U		0.52	U	
STYRENE		0.25	U		2	U		25	U		0.4	U	
TERT-AMYL METHYL ETHER		0.28	U		2.2	U		28	U		0.44	U	
TERT-BUTYLBENZENE		0.35	U		2.8	U		35	U		0.56	U	
TERTIARY-BUTYL ALCOHOL		12	U	B	34	U		420	U		6.8	U	
TETRACHLOROETHENE		0.38	U		3	U		38	U		0.6	U	
TOLUENE		0.35	U		2.8	U		73	J	P	0.64	J	P
TOTAL XYLENES		0.38	U		3	U		38	U		0.6	U	
TRANS-1,2-DICHLOROETHENE		0.48	U		3.8	U		48	U		0.76	U	
TRANS-1,3-DICHLOROPROPENE		1.7	UJ	C	13	U		170	U		2.7	U	
TRICHLOROETHENE		110			370			1200			0.4	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		47	UJ	C	35	UJ	C	5.6	UJ	C	14	U	
CARBON TETRACHLORIDE		43	U		33	U		5.2	U		13	U	
CHLOROBENZENE		23	U		18	U		2.8	U		7	U	
CHLORODIBROMOMETHANE		65	U		49	U		7.8	U		20	U	
CHLORODIFLUOROMETHANE		170	UJ	Q	130	UJ	Q	20	UJ	Q	50	UJ	Q
CHLOROETHANE		140	U		100	U		17	U		42	U	
CHLOROFORM		22	U		16	U		2.6	U		6.5	U	
CHLOROMETHANE		33	U		25	U		4	U		10	U	
CIS-1,2-DICHLOROETHENE		2100			1300			170			8.6	J	P
CIS-1,3-DICHLOROPROPENE		100	U		76	U		12	U		31	UJ	C
DIBROMOMETHANE		15	U		11	U		1.8	U		4.5	U	
DICHLORODIFLUOROMETHANE		58	U		44	U		7	U		18	U	
DIISOPROPYL ETHER		28	U		21	U		3.4	U		8.5	U	
ETHYL TERT-BUTYL ETHER		25	U		19	U		3	U		7.5	U	
ETHYLBENZENE		18	U		14	U		2.2	U		5.5	U	
HEXACHLOROBUTADIENE		140	UJ	C	100	UJ	C	17	UJ	C	42	U	
ISOPROPYLBENZENE		15	U		11	U		1.8	U		4.5	U	
M+P-XYLENES		13	U		10	U		1.6	U		4	U	
METHYL TERT-BUTYL ETHER		12	U		8.8	U		1.4	U		3.5	U	
METHYLENE CHLORIDE		440	U		330	U		52	U		130	U	
NAPHTHALENE		53	U		40	U		6.4	U		16	U	
N-BUTYLBENZENE		23	U		18	U		2.8	U		7	U	
N-PROPYLBENZENE		25	U		19	U		3	U		7.5	U	
O-XYLENE		15	U		11	U		1.8	U		4.5	U	
SEC-BUTYLBENZENE		22	U		16	U		2.6	U		6.5	U	
STYRENE		17	U		13	U		2	U		5	U	
TERT-AMYL METHYL ETHER		18	U		14	U		2.2	U		5.5	U	
TERT-BUTYLBENZENE		23	U		18	U		2.8	U		7	U	
TERTIARY-BUTYL ALCOHOL		280	U		210	U		34	U		7100		
TETRACHLOROETHENE		25	U		19	U		3	U		7.5	U	
TOLUENE		23	U		18	U		2.8	U		7	U	
TOTAL XYLENES		25	U		19	U		3	U		7.5	U	
TRANS-1,2-DICHLOROETHENE		39	J	P	24	U		3.8	U		9.5	U	
TRANS-1,3-DICHLOROPROPENE		110	U		84	U		13	U		34	U	
TRICHLOROETHENE		6400			3600			670			12	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718			TB-062718			TB-062818		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4			240-97836-1			240-97912-1		
FRACTION: OV	SAMP_DATE	6/27/2018			6/27/2018			6/27/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		28	U		0.28	U		0.28	UJ	C
CARBON TETRACHLORIDE		0.26	U		26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		39	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	100	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		20	U		0.2	U		0.45	J	P
CIS-1,2-DICHLOROETHENE		44			3700			0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	61	UJ	C	0.61	UJ	C	0.61	U	
DIBROMOMETHANE		0.09	U		9	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	U		83	U		0.83	U		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		9	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		8	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		7	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		260	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	U		14	U		0.14	U		0.14	U	
N-PROPYLBENZENE		0.15	U		15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		9	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		13	U		0.13	U		0.13	U	
STYRENE		0.1	U		10	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	UJ	C	170	UJ	C	17	J	P	14	J	P
TETRACHLOROETHENE		0.15	U		15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		1.6			19	J	P	0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	UJ	C	67	UJ	C	0.67	U		0.67	U	
TRICHLOROETHENE		19			4300			0.1	U		0.1	U	

PROJ_NO: 08424	NSAMPLE	TB-062918		
SDG: 240-97836-1	LAB_ID	240-97969-1		
FRACTION: OV	SAMP_DATE	6/29/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U	
CARBON TETRACHLORIDE		0.26	U	
CHLOROBENZENE		0.14	U	
CHLORODIBROMOMETHANE		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q
CHLOROETHANE		0.83	U	
CHLOROFORM		0.13	U	
CHLOROMETHANE		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	U	
DIBROMOMETHANE		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C
DIISOPROPYL ETHER		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U	
ETHYLBENZENE		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U	
M+P-XYLENES		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U	
METHYLENE CHLORIDE		2.6	U	
NAPHTHALENE		0.32	U	
N-BUTYLBENZENE		0.14	UJ	C
N-PROPYLBENZENE		0.15	U	
O-XYLENE		0.09	U	
SEC-BUTYLBENZENE		0.13	U	
STYRENE		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U	
TERT-BUTYLBENZENE		0.14	U	
TERTIARY-BUTYL ALCOHOL		15	J	P
TETRACHLOROETHENE		0.15	U	
TOLUENE		0.14	U	
TOTAL XYLENES		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U	
TRICHLOROETHENE		0.1	U	

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: OV	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		23	U		45	U		11	U		0.45	U	
VINYL ACETATE		9.5	U		19	U		4.8	U		0.19	U	
VINYL CHLORIDE		22	J	P	210			58			0.95	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		9	U		0.45	U		18	U		11	U	
VINYL ACETATE		3.8	U		0.19	U		7.6	U		4.8	U	
VINYL CHLORIDE		260			0.2	U		26	J	P	370		

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: OV	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		1.1	U		9	U		110	U		1.8	U	
VINYL ACETATE		0.48	U		3.8	U		48	U		0.76	U	
VINYL CHLORIDE		46			210			7700			120		

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: OV	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		75	U		56	U		9	U		23	U	
VINYL ACETATE		32	U		24	U		3.8	U		9.5	U	
VINYL CHLORIDE		280			530			37			10	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718			TB-062718			TB-062818		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4			240-97836-1			240-97912-1		
FRACTION: OV	SAMP_DATE	6/27/2018			6/27/2018			6/27/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	U		19	U		0.19	U		0.19	U	
VINYL CHLORIDE		2.2			100			0.2	U		0.2	U	

PROJ_NO: 08424	NSAMPLE	TB-062918		
SDG: 240-97836-1	LAB_ID	240-97969-1		
FRACTION: OV	SAMP_DATE	6/29/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U	
VINYL ACETATE		0.19	U	
VINYL CHLORIDE		0.2	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			TB-062918		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97969-1		
FRACTION: TICOV	SAMP_DATE	6/27/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			TB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PROPANAL, 2,2-DIMETHYL-					2.8	NJ	Z1
SILANOL, TRIMETHYL-		2.7	R	Z2			

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: OS	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		12			31			16			0.39	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: OS	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		30			1.6			23			110		

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: OS	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		23			19			42			3.1		

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: OS	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		26			26			14			0.92		

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4		
FRACTION: OS	SAMP_DATE	6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.5			25		

PROJ_NO: 08424	NSAMPLE	MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97969-2			240-97969-3			240-97969-4		
FRACTION: OVG	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		8			260			14		
ETHENE		59			1900			150		
METHANE		220			2300			87		

PROJ_NO: 08424	NSAMPLE	DMW-4S-062918			MSA-MW-46S-062818			MSA-MW-47S-062718			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97969-5			240-97912-5			240-97836-5			240-97969-4		
FRACTION: PET	SAMP_DATE	6/29/2018			6/28/2018			6/27/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		520			49	U		49	U		49	U	
TPH (C10-C32)		360	J	P	590			1200			360	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-49S-062818			MSA-MW-51S-062718		
SDG: 240-97836-1	LAB_ID	240-97912-4			240-97836-4		
FRACTION: PET	SAMP_DATE	6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		480			49	U	
TPH (C10-C32)		330	J	P	440	J	P

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: M	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		1.7	J	P	4.9	J	P
BARIUM		18			13			9.4			37		
BERYLLIUM		3.9			2.6			0.79	U	A	0.31	U	
CADMIUM		10			16			3.6			0.21	U	
CALCIUM													
CHROMIUM		1.3	J	P	3.5			0.98	U		0.98	U	
COBALT		130			100			40			9.3		
COPPER		48			80			1.7	U		1.7	U	
IRON		220			25000			20000			8500		
LEAD		0.59	U	A	1.3			1.2			0.45	U	
MAGNESIUM													
MANGANESE		3300	J-	D	4700	J-	D	3300	J-	D	22	J-	D
MERCURY		2			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		110			92			14			11		
POTASSIUM													
SELENIUM		18			8.2			2.7	J	P	0.89	U	
SILICON DIOXIDE													
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
SODIUM													
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		7.1			1.1	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: M	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.5	J	P	3.4	J	P	4.6	J	P	7.2		
BARIUM		27			26			19			28		
BERYLLIUM		0.58	J	P	0.31	U		0.31	U		1.8		
CADMIUM		0.64	J	P	0.21	U		0.21	U		79		
CALCIUM													
CHROMIUM		0.98	U		2.7			0.98	U		2.8		
COBALT		190			6.3			25			81		
COPPER		1.7	U		2.1			1.7	U		50		
IRON		10000			6400			8800			5000		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MAGNESIUM													
MANGANESE		1400	J-	D	710	J-	D	390	J-	D	3500	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.66		
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		94			3.7			14			33		
POTASSIUM													
SELENIUM		7.3			1.5	U	A	0.89	U		20		
SILICON DIOXIDE													
SILVER		0.053	U		0.053	U		11			1.6		
SODIUM													
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		0.94	J	P	0.82	U		2.3	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: M	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		2.5		
ARSENIC		9.9			0.75	U		8.6			0.76	J	P
BARIUM		35			22			28			36		
BERYLLIUM		0.31	U		1.5			0.46	U	A	0.31	U	
CADMIUM		0.21	U		36			32			0.52	J	P
CALCIUM					36000			120000			280000		
CHROMIUM		1.1	J	P	1.3	J	P	5			0.99	J	P
COBALT		7.9			180			120			0.34	J	P
COPPER		1.7	U		20			2			5		
IRON		7800			47	U		8000			47	U	
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MAGNESIUM					22000			46000			36000		
MANGANESE		3900	J-	D	3100	J-	D	3300	J-	D	6.7	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.7	J	P
NICKEL		3.1			77			31			2.7		
POTASSIUM					3700	J	P	9900			15000		
SELENIUM		0.89	U		9			3.4	J	P	1.1	J	P
SILICON DIOXIDE					8800			10000			33000		
SILVER		0.053	U		0.073	J	P	0.17	J	P	0.053	U	
SODIUM					56000	J	I	88000	J	I	25000	J	I
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		1.2	J	P	0.82	U		1.4	J	P	2.8	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: M	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.66	J	P
ARSENIC		0.75	U		0.75	U		0.75	U		1.2	J	P
BARIUM		16			13			21			5.6		
BERYLLIUM		7.6			6.8			0.31	U		0.5	J	P
CADMIUM		20			23			0.46	J	P	0.21	U	
CALCIUM													
CHROMIUM		4.7			6.5			0.98	U		0.98	U	
COBALT		200			110			74			1.9		
COPPER		94			75			3.1			1.8	U	A
IRON		9000			35000			32000			200		
LEAD		1.5			0.85	J	P	0.45	U		0.45	U	
MAGNESIUM													
MANGANESE		6600	J-	D	6200	J-	D	4500	J-	D	1400	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		97			71			22			1.9	J	P
POTASSIUM													
SELENIUM		30			28			1.9	U	A	0.89	U	
SILICON DIOXIDE													
SILVER		1.1			1.7			0.053	U		0.31	J	P
SODIUM													
THALLIUM		0.38	J	P	0.25	J	P	0.2	U		0.2	U	
VANADIUM		9.3			4.7	J	P	0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4		
FRACTION: M	SAMP_DATE	6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U	
ARSENIC		0.77	J	P	0.75	U	
BARIUM		16			17		
BERYLLIUM		2.1			0.84	J	P
CADMIUM		1.2			1.4		
CALCIUM							
CHROMIUM		5.7			1.3	J	P
COBALT		79			28		
COPPER		3.6	U	A	4.7	U	A
IRON		51000			7400		
LEAD		0.45	U		0.45	U	
MAGNESIUM							
MANGANESE		3900	J-	D	3600	J-	D
MERCURY		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U	
NICKEL		30			23		
POTASSIUM							
SELENIUM		14			6.2		
SILICON DIOXIDE							
SILVER		0.053	U		0.32	J	P
SODIUM							
THALLIUM		0.21	J	P	0.2	U	
VANADIUM		4.4	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			DMW-4S-062918			MSA-MW-46D-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97969-5			240-97912-7		
FRACTION: MF	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		1.3	J	P	4.7	J	P
BARIUM		19			13			9.3			41		
BERYLLIUM		4			1.9			0.54	U	A	0.31	U	
CADMIUM		11			16			2.1			0.21	U	
CHROMIUM		0.98	U		3			0.98	U		0.98	U	
COBALT		130			100			40			10		
COPPER		50			54			1.7	U		1.7	U	
IRON		47	J	P	24000			18000			9200		
LEAD		0.46	U	A	1.1			0.46	U	A	0.45	U	
MANGANESE		3400	J-	D	4700	J-	D	3300	J-	D	24	J-	D
MERCURY		0.57			0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		110			90			14			12		
SELENIUM		18			7.8			2.5	J	P	0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		6.3			0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718		
SDG: 240-97836-1	LAB_ID	240-97912-6			240-97912-5			240-97836-7			240-97836-6		
FRACTION: MF	SAMP_DATE	6/28/2018			6/28/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.1	J	P	2.3	J	P	3.8	J	P	4.6	J	P
BARIUM		25			26			18			25		
BERYLLIUM		0.53	J	P	0.31	U		0.31	U		0.76	J	P
CADMIUM		0.53	J	P	0.21	U		0.21	U		18		
CHROMIUM		0.98	U		3.5			0.98	U		1.2	J	P
COBALT		170			6.1			23			79		
COPPER		1.7	U		1.7	U		1.7	U		12	U	A
IRON		9800			5800			8200			3700		
LEAD		0.45	U		0.45	U		0.45	U		0.45	U	
MANGANESE		1300	J-	D	700	J-	D	360	J-	D	3400	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		88			3.5			12			32		
SELENIUM		6.6			1.3	U	A	0.89	U		9.1		
SILVER		0.053	U		0.053	U		0.3	J	P	0.29	J	P
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		0.82	U		0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-47S-062718			MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: 240-97836-1	LAB_ID	240-97836-5			240-97969-2			240-97969-3			240-97969-4		
FRACTION: MF	SAMP_DATE	6/27/2018			6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		2.3		
ARSENIC		9.4			0.75	U		8.4			1.1	J	P
BARIUM		34			23			29			36		
BERYLLIUM		0.31	U		1.8			0.31	U		0.31	U	
CADMIUM		0.21	U		35			16			0.62	J	P
CHROMIUM		1.1	J	P	1.3	J	P	5.5			1	J	P
COBALT		8.1			170			150			0.4	J	P
COPPER		1.7	U		19			1.7	J	P	12		
IRON		7500			47	U		8700			47	U	
LEAD		0.45	U		0.45	U		1			0.45	U	
MANGANESE		3800	J-	D	2900	J-	D	3700	J-	D	7.5	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.8	J	P
NICKEL		3.3			73			36			2.9		
SELENIUM		0.89	U		8.9			2.5	J	P	1.1	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	J	P	0.2	U		0.2	U	
VANADIUM		0.99	J	P	0.82	U		0.93	J	P	2.8	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-49D-062818			MSA-MW-49I-062818			MSA-MW-49S-062818			MSA-MW-51D-062718		
SDG: 240-97836-1	LAB_ID	240-97912-2			240-97912-3			240-97912-4			240-97836-2		
FRACTION: MF	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		0.75	U		0.75	U		0.75	U		1.3	J	P
BARIUM		15			15			22			5.5		
BERYLLIUM		7.7			6.9			0.31	U		0.35	J	P
CADMIUM		19			24			0.48	J	P	0.21	U	
CHROMIUM		4.8			5.6			0.98	U		0.98	U	
COBALT		200			120			81			1.3		
COPPER		97			77			1.7	U		1.7	U	
IRON		8800			37000			35000			170		
LEAD		1.4			0.73	J	P	0.45	U		0.45	U	
MANGANESE		6700	J-	D	6600	J-	D	5000	J-	D	1500	J-	D
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U		1.1	U	
NICKEL		94			77			24			1.5	J	P
SELENIUM		30			30			2	U	A	0.89	U	
SILVER		0.68	J	P	0.053	U		0.053	U		0.092	J	P
THALLIUM		0.36	J	P	0.25	J	P	0.2	U		0.2	U	
VANADIUM		9.2			3.8	J	P	0.82	U		0.82	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718		
SDG: 240-97836-1	LAB_ID	240-97836-3			240-97836-4		
FRACTION: MF	SAMP_DATE	6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	0.57	U		0.57	U	
ARSENIC	0.75	U		0.75	U	
BARIUM	16			19		
BERYLLIUM	2			1.1		
CADMIUM	1.1			1.6		
CHROMIUM	5.8			1.3	J	P
COBALT	80			32		
COPPER	2.6	U	A	6.6	U	A
IRON	52000			9100		
LEAD	0.45	U		0.45	U	
MANGANESE	3900	J-	D	4100	J-	D
MERCURY	0.13	U		0.13	U	
MOLYBDENUM	1.1	U		1.1	U	
NICKEL	31			27		
SELENIUM	14			7.4		
SILVER	0.053	U		0.053	U	
THALLIUM	0.2	J	P	0.2	U	
VANADIUM	4.2	J	P	0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-4D-062918			DMW-4I-062918			MSA-MW-46D-062818			MSA-MW-46I-062818		
SDG: 240-97836-1	LAB_ID	240-97969-7			240-97969-6			240-97912-7			240-97912-6		
FRACTION: MISC	SAMP_DATE	6/29/2018			6/29/2018			6/28/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY													
AMMONIA													
CHLORIDE													
DISSOLVED ORGANIC CARBON													
NITRATE-N													
NITRITE-N													
PERCHLORATE		2.3			0.13	J	P	0.082	U		0.082	U	
SULFATE													
TOTAL DISSOLVED SOLIDS													

PROJ_NO: 08424	NSAMPLE	MSA-MW-46S-062818			MSA-MW-47D-062718			MSA-MW-47I-062718			MSA-MW-47S-062718		
SDG: 240-97836-1	LAB_ID	240-97912-5			240-97836-7			240-97836-6			240-97836-5		
FRACTION: MISC	SAMP_DATE	6/28/2018			6/27/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY													
AMMONIA													
CHLORIDE													
DISSOLVED ORGANIC CARBON													
NITRATE-N													
NITRITE-N													
PERCHLORATE		0.082	U		0.082	U		0.082	U		0.082	U	
SULFATE													
TOTAL DISSOLVED SOLIDS													

PROJ_NO: 08424	NSAMPLE	MSA-MW-48D-062918						MSA-MW-48I-062918					
SDG: 240-97836-1	LAB_ID	240-97969-2						240-97969-3					
FRACTION: MISC	SAMP_DATE	6/29/2018						6/29/2018					
MEDIA: WATER	QC_TYPE	NM						NM					
	UNITS	MG/L			UG/L			MG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		8						240					
AMMONIA		0.56	J	P				2.8					
CHLORIDE		74						120					
DISSOLVED ORGANIC CARBON		2.4						8.3					
NITRATE-N		1.2						0.014	U				
NITRITE-N		0.037	J	P				0.014	U				
PERCHLORATE					0.082	U					0.082	U	
SULFATE		270						330					
TOTAL DISSOLVED SOLIDS		530						930					

PROJ_NO: 08424	NSAMPLE	MSA-MW-48S-062918						MSA-MW-49D-062818			MSA-MW-49I-062818		
SDG: 240-97836-1	LAB_ID	240-97969-4						240-97912-2			240-97912-3		
FRACTION: MISC	SAMP_DATE	6/29/2018						6/28/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM						NM			NM		
	UNITS	MG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY		530											
AMMONIA		0.56	J	P									
CHLORIDE		29											
DISSOLVED ORGANIC CARBON		7.4											
NITRATE-N		0.75											
NITRITE-N		0.014	U										
PERCHLORATE					0.082	U		1.5			1.6		
SULFATE		360											
TOTAL DISSOLVED SOLIDS		1100											

PROJ_NO: 08424	NSAMPLE	MSA-MW-49S-062818			MSA-MW-51D-062718			MSA-MW-51I-062718			MSA-MW-51S-062718		
SDG: 240-97836-1	LAB_ID	240-97912-4			240-97836-2			240-97836-3			240-97836-4		
FRACTION: MISC	SAMP_DATE	6/28/2018			6/27/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY													
AMMONIA													
CHLORIDE													
DISSOLVED ORGANIC CARBON													
NITRATE-N													
NITRITE-N													
PERCHLORATE		0.082	U		0.16	J	P	0.082	U		0.27	J	P
SULFATE													
TOTAL DISSOLVED SOLIDS													

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 | Lab Sample ID: 240-97969-7

Matrix: Water | Lab File ID: UXM12611.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:55

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	7.0	U	50	7.0
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	6.5	U	50	6.5
76-13-1	1,1,2-Trichlorotrifluoroethane	21	U	50	21
75-34-3	1,1-Dichloroethane	8.5	U	50	8.5
75-35-4	1,1-Dichloroethene	9.5	U	50	9.5
563-58-6	1,1-Dichloropropene	7.0	U	50	7.0
87-61-6	1,2,3-Trichlorobenzene	27	U	50	27
96-18-4	1,2,3-Trichloropropane	12	U	50	12
526-73-8	1,2,3-Trimethylbenzene	7.0	U	250	7.0
120-82-1	1,2,4-Trichlorobenzene	13	U	50	13
95-63-6	1,2,4-Trimethylbenzene	3.5	U	50	3.5
96-12-8	1,2-Dibromo-3-Chloropropane	46	U	100	46
95-50-1	1,2-Dichlorobenzene	7.5	U	50	7.5
107-06-2	1,2-Dichloroethane	11	U	50	11
78-87-5	1,2-Dichloropropane	7.5	U	50	7.5
541-73-1	1,3-Dichlorobenzene	7.5	U	50	7.5
142-28-9	1,3-Dichloropropane	11	U	50	11
106-46-7	1,4-Dichlorobenzene	8.0	U	50	8.0
594-20-7	2,2-Dichloropropane	16	U	50	16
78-93-3	2-Butanone (MEK)	58	U	500	58
110-75-8	2-Chloroethyl vinyl ether	13	U	500	13
95-49-8	2-Chlorotoluene	7.5	U	50	7.5
591-78-6	2-Hexanone	27	U	500	27
106-43-4	4-Chlorotoluene	4.5	U	50	4.5
99-87-6	4-Isopropyltoluene	6.5	U	50	6.5
108-10-1	4-Methyl-2-pentanone (MIBK)	21	U	500	21
67-64-1	Acetone	270	U	500	270
71-43-2	Benzene	6.5	U	50	6.5
108-86-1	Bromobenzene	6.0	U	50	6.0
75-25-2	Bromoform	38	U	50	38
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	14	U	50	14
56-23-5	Carbon tetrachloride	13	U	50	13
108-90-7	Chlorobenzene	7.0	U	50	7.0
124-48-1	Chlorodibromomethane	20	U	50	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 | Lab Sample ID: 240-97969-7

Matrix: Water | Lab File ID: UXM12611.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:55

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	42	U	50	42
67-66-3	Chloroform	6.5	U	50	6.5
74-87-3	Chloromethane	10	U	50	10
156-59-2	cis-1,2-Dichloroethene	400		50	8.0
10061-01-5	cis-1,3-Dichloropropene	31	U	50	31
74-95-3	Dibromomethane	4.5	U	50	4.5
74-97-5	Bromochloromethane	7.0	U	50	7.0
75-71-8	Dichlorodifluoromethane	18	U	50	18
75-27-4	Bromodichloromethane	8.5	U	50	8.5
75-65-0	tert-Butyl alcohol	85	U	2500	85
100-41-4	Ethylbenzene	5.5	U	50	5.5
87-68-3	Hexachlorobutadiene	42	U	50	42
108-20-3	Diisopropyl ether	8.5	U	500	8.5
98-82-8	Isopropylbenzene	4.5	U	50	4.5
1634-04-4	Methyl tert-butyl ether	3.5	U	50	3.5
75-09-2	Methylene Chloride	130	U	250	130
179601-23-1	m-Xylene & p-Xylene	4.0	U	100	4.0
91-20-3	Naphthalene	16	U	50	16
104-51-8	n-Butylbenzene	7.0	U	50	7.0
103-65-1	N-Propylbenzene	7.5	U	50	7.5
95-47-6	o-Xylene	4.5	U	50	4.5
135-98-8	sec-Butylbenzene	6.5	U	50	6.5
100-42-5	Styrene	5.0	U	50	5.0
994-05-8	Tert-amyl methyl ether	5.5	U	250	5.5
637-92-3	Ethyl tert-butyl ether	7.5	U	250	7.5
127-18-4	Tetrachloroethene	7.5	U	50	7.5
108-88-3	Toluene	7.0	U	50	7.0
156-60-5	trans-1,2-Dichloroethene	9.5	U	50	9.5
10061-02-6	trans-1,3-Dichloropropene	34	U	50	34
79-01-6	Trichloroethene	1800		50	5.0
75-69-4	Trichlorofluoromethane	23	U	50	23
108-05-4	Vinyl acetate	9.5	U	100	9.5
75-01-4	Vinyl chloride	22	J	50	10
1330-20-7	Xylenes, Total	7.5	U	100	7.5
98-06-6	tert-Butylbenzene	7.0	U	50	7.0
106-93-4	1,2-Dibromoethane	6.0	U	50	6.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Matrix: Water Lab File ID: UXM12611.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:55

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	87		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 | Lab Sample ID: 240-97969-7

Matrix: Water | Lab File ID: UXM12611.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:55

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 | Lab Sample ID: 240-97969-7

Matrix: Water | Lab File ID: UXM12611.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:55

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		50	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 | Lab Sample ID: 240-97969-6

Matrix: Water | Lab File ID: UXM12610.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	14	U	100	14
71-55-6	1,1,1-Trichloroethane	24	U	100	24
79-34-5	1,1,2,2-Tetrachloroethane	13	U	100	13
76-13-1	1,1,2-Trichlorotrifluoroethane	41	U	100	41
75-34-3	1,1-Dichloroethane	17	U	100	17
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	14	U	100	14
87-61-6	1,2,3-Trichlorobenzene	54	U	100	54
96-18-4	1,2,3-Trichloropropane	24	U	100	24
526-73-8	1,2,3-Trimethylbenzene	14	U	500	14
120-82-1	1,2,4-Trichlorobenzene	26	U	100	26
95-63-6	1,2,4-Trimethylbenzene	7.0	U	100	7.0
96-12-8	1,2-Dibromo-3-Chloropropane	91	U	200	91
95-50-1	1,2-Dichlorobenzene	15	U	100	15
107-06-2	1,2-Dichloroethane	21	U	100	21
78-87-5	1,2-Dichloropropane	15	U	100	15
541-73-1	1,3-Dichlorobenzene	15	U	100	15
142-28-9	1,3-Dichloropropane	21	U	100	21
106-46-7	1,4-Dichlorobenzene	16	U	100	16
594-20-7	2,2-Dichloropropane	31	U	100	31
78-93-3	2-Butanone (MEK)	120	U	1000	120
110-75-8	2-Chloroethyl vinyl ether	26	U	1000	26
95-49-8	2-Chlorotoluene	15	U	100	15
591-78-6	2-Hexanone	54	U	1000	54
106-43-4	4-Chlorotoluene	9.0	U	100	9.0
99-87-6	4-Isopropyltoluene	13	U	100	13
108-10-1	4-Methyl-2-pentanone (MIBK)	42	U	1000	42
67-64-1	Acetone	540	U	1000	540
71-43-2	Benzene	13	U	100	13
108-86-1	Bromobenzene	12	U	100	12
75-25-2	Bromoform	76	U	100	76
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	28	U	100	28
56-23-5	Carbon tetrachloride	26	U	100	26
108-90-7	Chlorobenzene	14	U	100	14
124-48-1	Chlorodibromomethane	39	U	100	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 | Lab Sample ID: 240-97969-6

Matrix: Water | Lab File ID: UXM12610.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	83	U	100	83
67-66-3	Chloroform	13	U	100	13
74-87-3	Chloromethane	20	U	100	20
156-59-2	cis-1,2-Dichloroethene	1100		100	16
10061-01-5	cis-1,3-Dichloropropene	61	U	100	61
74-95-3	Dibromomethane	9.0	U	100	9.0
74-97-5	Bromochloromethane	14	U	100	14
75-71-8	Dichlorodifluoromethane	35	U	100	35
75-27-4	Bromodichloromethane	17	U	100	17
75-65-0	tert-Butyl alcohol	170	U	5000	170
100-41-4	Ethylbenzene	11	U	100	11
87-68-3	Hexachlorobutadiene	83	U	100	83
108-20-3	Diisopropyl ether	17	U	1000	17
98-82-8	Isopropylbenzene	9.0	U	100	9.0
1634-04-4	Methyl tert-butyl ether	7.0	U	100	7.0
75-09-2	Methylene Chloride	260	U	500	260
179601-23-1	m-Xylene & p-Xylene	8.0	U	200	8.0
91-20-3	Naphthalene	32	U	100	32
104-51-8	n-Butylbenzene	14	U	100	14
103-65-1	N-Propylbenzene	15	U	100	15
95-47-6	o-Xylene	9.0	U	100	9.0
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	10	U	100	10
994-05-8	Tert-amyl methyl ether	11	U	500	11
637-92-3	Ethyl tert-butyl ether	15	U	500	15
127-18-4	Tetrachloroethene	15	U	100	15
108-88-3	Toluene	14	U	100	14
156-60-5	trans-1,2-Dichloroethene	19	U	100	19
10061-02-6	trans-1,3-Dichloropropene	67	U	100	67
79-01-6	Trichloroethene	2100		100	10
75-69-4	Trichlorofluoromethane	45	U	100	45
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	210		100	20
1330-20-7	Xylenes, Total	15	U	200	15
98-06-6	tert-Butylbenzene	14	U	100	14
106-93-4	1,2-Dibromoethane	12	U	100	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Matrix: Water Lab File ID: UXM12610.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:31

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Matrix: Water Lab File ID: UXM12610.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:31

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 | Lab Sample ID: 240-97969-6

Matrix: Water | Lab File ID: UXM12610.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		100	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 | Lab Sample ID: 240-97969-5

Matrix: Water | Lab File ID: UXM12609.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:07

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	25	3.5
71-55-6	1,1,1-Trichloroethane	6.0	U	25	6.0
79-34-5	1,1,2,2-Tetrachloroethane	3.3	U	25	3.3
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U	25	10
75-34-3	1,1-Dichloroethane	4.3	U	25	4.3
75-35-4	1,1-Dichloroethene	16	J	25	4.8
563-58-6	1,1-Dichloropropene	3.5	U	25	3.5
87-61-6	1,2,3-Trichlorobenzene	14	U	25	14
96-18-4	1,2,3-Trichloropropane	6.0	U	25	6.0
526-73-8	1,2,3-Trimethylbenzene	3.5	U	130	3.5
120-82-1	1,2,4-Trichlorobenzene	6.5	U	25	6.5
95-63-6	1,2,4-Trimethylbenzene	1.8	U	25	1.8
96-12-8	1,2-Dibromo-3-Chloropropane	23	U	50	23
95-50-1	1,2-Dichlorobenzene	3.8	U	25	3.8
107-06-2	1,2-Dichloroethane	8.5	J	25	5.3
78-87-5	1,2-Dichloropropane	3.8	U	25	3.8
541-73-1	1,3-Dichlorobenzene	3.8	U	25	3.8
142-28-9	1,3-Dichloropropane	5.3	U	25	5.3
106-46-7	1,4-Dichlorobenzene	4.0	U	25	4.0
594-20-7	2,2-Dichloropropane	7.8	U	25	7.8
78-93-3	2-Butanone (MEK)	29	U	250	29
110-75-8	2-Chloroethyl vinyl ether	6.5	U	250	6.5
95-49-8	2-Chlorotoluene	3.8	U	25	3.8
591-78-6	2-Hexanone	14	U	250	14
106-43-4	4-Chlorotoluene	2.3	U	25	2.3
99-87-6	4-Isopropyltoluene	3.3	U	25	3.3
108-10-1	4-Methyl-2-pentanone (MIBK)	11	U	250	11
67-64-1	Acetone	140	U	250	140
71-43-2	Benzene	3.3	U	25	3.3
108-86-1	Bromobenzene	3.0	U	25	3.0
75-25-2	Bromoform	19	U	25	19
74-83-9	Bromomethane	11	U	25	11
75-15-0	Carbon disulfide	7.0	U	25	7.0
56-23-5	Carbon tetrachloride	6.5	U	25	6.5
108-90-7	Chlorobenzene	3.5	U	25	3.5
124-48-1	Chlorodibromomethane	9.8	U	25	9.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 | Lab Sample ID: 240-97969-5

Matrix: Water | Lab File ID: UXM12609.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 17:07

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	21	U	25	21
67-66-3	Chloroform	3.3	U	25	3.3
74-87-3	Chloromethane	5.0	U	25	5.0
156-59-2	cis-1,2-Dichloroethene	190		25	4.0
10061-01-5	cis-1,3-Dichloropropene	15	U	25	15
74-95-3	Dibromomethane	2.3	U	25	2.3
74-97-5	Bromochloromethane	3.5	U	25	3.5
75-71-8	Dichlorodifluoromethane	8.8	U	25	8.8
75-27-4	Bromodichloromethane	4.3	U	25	4.3
75-65-0	tert-Butyl alcohol	42	U	1300	42
100-41-4	Ethylbenzene	2.8	U	25	2.8
87-68-3	Hexachlorobutadiene	21	U	25	21
108-20-3	Diisopropyl ether	4.3	U	250	4.3
98-82-8	Isopropylbenzene	2.3	U	25	2.3
1634-04-4	Methyl tert-butyl ether	1.8	U	25	1.8
75-09-2	Methylene Chloride	66	U	130	66
179601-23-1	m-Xylene & p-Xylene	2.0	U	50	2.0
91-20-3	Naphthalene	8.0	U	25	8.0
104-51-8	n-Butylbenzene	3.5	U	25	3.5
103-65-1	N-Propylbenzene	3.8	U	25	3.8
95-47-6	o-Xylene	2.3	U	25	2.3
135-98-8	sec-Butylbenzene	3.3	U	25	3.3
100-42-5	Styrene	2.5	U	25	2.5
994-05-8	Tert-amyl methyl ether	2.8	U	130	2.8
637-92-3	Ethyl tert-butyl ether	3.8	U	130	3.8
127-18-4	Tetrachloroethene	3.8	U	25	3.8
108-88-3	Toluene	3.5	U	25	3.5
156-60-5	trans-1,2-Dichloroethene	4.8	U	25	4.8
10061-02-6	trans-1,3-Dichloropropene	17	U	25	17
79-01-6	Trichloroethene	770		25	2.5
75-69-4	Trichlorofluoromethane	11	U	25	11
108-05-4	Vinyl acetate	4.8	U	50	4.8
75-01-4	Vinyl chloride	58		25	5.0
1330-20-7	Xylenes, Total	3.8	U	50	3.8
98-06-6	tert-Butylbenzene	3.5	U	25	3.5
106-93-4	1,2-Dibromoethane	3.0	U	25	3.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Matrix: Water Lab File ID: UXM12609.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:07

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Matrix: Water Lab File ID: UXM12609.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:07

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Matrix: Water Lab File ID: UXM12609.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 17:07

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		25	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 | Lab Sample ID: 240-97912-7

Matrix: Water | Lab File ID: UXM12516.D

Analysis Method: 8260C | Date Collected: 06/28/2018 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.60	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 | Lab Sample ID: 240-97912-7

Matrix: Water | Lab File ID: UXM12516.D

Analysis Method: 8260C | Date Collected: 06/28/2018 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	11		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	38		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.95	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Matrix: Water Lab File ID: UXM12516.D

Analysis Method: 8260C Date Collected: 06/28/2018 13:20

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Matrix: Water Lab File ID: UXM12516.D

Analysis Method: 8260C Date Collected: 06/28/2018 13:20

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Matrix: Water Lab File ID: UXM12516.D

Analysis Method: 8260C Date Collected: 06/28/2018 13:20

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 | Lab Sample ID: 240-97912-6

Matrix: Water | Lab File ID: UXM12515.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:31

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.8	U	20	2.8
71-55-6	1,1,1-Trichloroethane	4.8	U	20	4.8
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	20	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	8.2	U	20	8.2
75-34-3	1,1-Dichloroethane	3.4	U	20	3.4
75-35-4	1,1-Dichloroethene	3.8	U	20	3.8
563-58-6	1,1-Dichloropropene	2.8	U	20	2.8
87-61-6	1,2,3-Trichlorobenzene	11	U	20	11
96-18-4	1,2,3-Trichloropropane	4.8	U	20	4.8
526-73-8	1,2,3-Trimethylbenzene	2.8	U	100	2.8
120-82-1	1,2,4-Trichlorobenzene	5.2	U	20	5.2
95-63-6	1,2,4-Trimethylbenzene	1.4	U	20	1.4
96-12-8	1,2-Dibromo-3-Chloropropane	18	U	40	18
95-50-1	1,2-Dichlorobenzene	3.0	U	20	3.0
107-06-2	1,2-Dichloroethane	22		20	4.2
78-87-5	1,2-Dichloropropane	3.0	U	20	3.0
541-73-1	1,3-Dichlorobenzene	3.0	U	20	3.0
142-28-9	1,3-Dichloropropane	4.2	U	20	4.2
106-46-7	1,4-Dichlorobenzene	3.2	U	20	3.2
594-20-7	2,2-Dichloropropane	6.2	U	20	6.2
78-93-3	2-Butanone (MEK)	23	U	200	23
110-75-8	2-Chloroethyl vinyl ether	5.2	U	200	5.2
95-49-8	2-Chlorotoluene	3.0	U	20	3.0
591-78-6	2-Hexanone	11	U	200	11
106-43-4	4-Chlorotoluene	1.8	U	20	1.8
99-87-6	4-Isopropyltoluene	2.6	U	20	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	8.4	U	200	8.4
67-64-1	Acetone	110	U	200	110
71-43-2	Benzene	4.8	J	20	2.6
108-86-1	Bromobenzene	2.4	U	20	2.4
75-25-2	Bromoform	15	U	20	15
74-83-9	Bromomethane	8.4	U	20	8.4
75-15-0	Carbon disulfide	5.6	U	20	5.6
56-23-5	Carbon tetrachloride	5.2	U	20	5.2
108-90-7	Chlorobenzene	72		20	2.8
124-48-1	Chlorodibromomethane	7.8	U	20	7.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 | Lab Sample ID: 240-97912-6

Matrix: Water | Lab File ID: UXM12515.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:31

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	17	U	20	17
67-66-3	Chloroform	2.6	U	20	2.6
74-87-3	Chloromethane	4.0	U	20	4.0
156-59-2	cis-1,2-Dichloroethene	320		20	3.2
10061-01-5	cis-1,3-Dichloropropene	12	U	20	12
74-95-3	Dibromomethane	1.8	U	20	1.8
74-97-5	Bromochloromethane	2.8	U	20	2.8
75-71-8	Dichlorodifluoromethane	7.0	U	20	7.0
75-27-4	Bromodichloromethane	3.4	U	20	3.4
75-65-0	tert-Butyl alcohol	34	U	1000	34
100-41-4	Ethylbenzene	2.2	U	20	2.2
87-68-3	Hexachlorobutadiene	17	U	20	17
108-20-3	Diisopropyl ether	3.4	U	200	3.4
98-82-8	Isopropylbenzene	1.8	U	20	1.8
1634-04-4	Methyl tert-butyl ether	1.4	U	20	1.4
75-09-2	Methylene Chloride	52	U	100	52
179601-23-1	m-Xylene & p-Xylene	1.6	U	40	1.6
91-20-3	Naphthalene	6.4	U	20	6.4
104-51-8	n-Butylbenzene	2.8	U	20	2.8
103-65-1	N-Propylbenzene	3.0	U	20	3.0
95-47-6	o-Xylene	1.8	U	20	1.8
135-98-8	sec-Butylbenzene	2.6	U	20	2.6
100-42-5	Styrene	2.0	U	20	2.0
994-05-8	Tert-amyl methyl ether	2.2	U	100	2.2
637-92-3	Ethyl tert-butyl ether	3.0	U	100	3.0
127-18-4	Tetrachloroethene	3.0	U	20	3.0
108-88-3	Toluene	2.8	U	20	2.8
156-60-5	trans-1,2-Dichloroethene	3.8	U	20	3.8
10061-02-6	trans-1,3-Dichloropropene	13	U	20	13
79-01-6	Trichloroethene	510		20	2.0
75-69-4	Trichlorofluoromethane	9.0	U	20	9.0
108-05-4	Vinyl acetate	3.8	U	40	3.8
75-01-4	Vinyl chloride	260		20	4.0
1330-20-7	Xylenes, Total	3.0	U	40	3.0
98-06-6	tert-Butylbenzene	2.8	U	20	2.8
106-93-4	1,2-Dibromoethane	2.4	U	20	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 Lab Sample ID: 240-97912-6

Matrix: Water Lab File ID: UXM12515.D

Analysis Method: 8260C Date Collected: 06/28/2018 11:40

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:31

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 | Lab Sample ID: 240-97912-6

Matrix: Water | Lab File ID: UXM12515.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:31

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 | Lab Sample ID: 240-97912-6

Matrix: Water | Lab File ID: UXM12515.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:31

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		20	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 | Lab Sample ID: 240-97912-5

Matrix: Water | Lab File ID: UXM12514.D

Analysis Method: 8260C | Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.75	J	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 | Lab Sample ID: 240-97912-5

Matrix: Water | Lab File ID: UXM12514.D

Analysis Method: 8260C | Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.41	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.32	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Matrix: Water Lab File ID: UXM12514.D

Analysis Method: 8260C Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Matrix: Water Lab File ID: UXM12514.D

Analysis Method: 8260C Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Matrix: Water Lab File ID: UXM12514.D

Analysis Method: 8260C Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 | Lab Sample ID: 240-97836-7

Matrix: Water | Lab File ID: U1900409.d

Analysis Method: 8260C | Date Collected: 06/27/2018 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	40	5.6
71-55-6	1,1,1-Trichloroethane	9.6	U	40	9.6
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	40	5.2
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U	40	16
75-34-3	1,1-Dichloroethane	6.8	U	40	6.8
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.6	U	40	5.6
87-61-6	1,2,3-Trichlorobenzene	22	U	40	22
96-18-4	1,2,3-Trichloropropane	9.6	U	40	9.6
526-73-8	1,2,3-Trimethylbenzene	5.6	U	200	5.6
120-82-1	1,2,4-Trichlorobenzene	10	U	40	10
95-63-6	1,2,4-Trimethylbenzene	2.8	U	40	2.8
96-12-8	1,2-Dibromo-3-Chloropropane	36	U	80	36
95-50-1	1,2-Dichlorobenzene	6.0	U	40	6.0
107-06-2	1,2-Dichloroethane	13	J	40	8.4
78-87-5	1,2-Dichloropropane	6.0	U	40	6.0
541-73-1	1,3-Dichlorobenzene	6.0	U	40	6.0
142-28-9	1,3-Dichloropropane	8.4	U	40	8.4
106-46-7	1,4-Dichlorobenzene	6.4	U	40	6.4
594-20-7	2,2-Dichloropropane	12	U	40	12
78-93-3	2-Butanone (MEK)	46	U	400	46
110-75-8	2-Chloroethyl vinyl ether	10	U	400	10
95-49-8	2-Chlorotoluene	6.0	U	40	6.0
591-78-6	2-Hexanone	22	U	400	22
106-43-4	4-Chlorotoluene	3.6	U	40	3.6
99-87-6	4-Isopropyltoluene	5.2	U	40	5.2
108-10-1	4-Methyl-2-pentanone (MIBK)	17	U	400	17
67-64-1	Acetone	220	U	400	220
71-43-2	Benzene	5.2	U	40	5.2
108-86-1	Bromobenzene	4.8	U	40	4.8
75-25-2	Bromoform	30	U	40	30
74-83-9	Bromomethane	17	U	40	17
75-15-0	Carbon disulfide	11	U	40	11
56-23-5	Carbon tetrachloride	10	U	40	10
108-90-7	Chlorobenzene	5.6	U	40	5.6
124-48-1	Chlorodibromomethane	16	U	40	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 | Lab Sample ID: 240-97836-7

Matrix: Water | Lab File ID: U1900409.d

Analysis Method: 8260C | Date Collected: 06/27/2018 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	33	U	40	33
67-66-3	Chloroform	20	J	40	5.2
74-87-3	Chloromethane	8.0	U	40	8.0
156-59-2	cis-1,2-Dichloroethene	110		40	6.4
10061-01-5	cis-1,3-Dichloropropene	24	U	40	24
74-95-3	Dibromomethane	3.6	U	40	3.6
74-97-5	Bromochloromethane	5.6	U	40	5.6
75-71-8	Dichlorodifluoromethane	14	U	40	14
75-27-4	Bromodichloromethane	6.8	U	40	6.8
75-65-0	tert-Butyl alcohol	160	J *	2000	68
100-41-4	Ethylbenzene	4.4	U	40	4.4
87-68-3	Hexachlorobutadiene	33	U	40	33
108-20-3	Diisopropyl ether	6.8	U	400	6.8
98-82-8	Isopropylbenzene	3.6	U	40	3.6
1634-04-4	Methyl tert-butyl ether	2.8	U	40	2.8
75-09-2	Methylene Chloride	100	U	200	100
179601-23-1	m-Xylene & p-Xylene	3.2	U	80	3.2
91-20-3	Naphthalene	13	U	40	13
104-51-8	n-Butylbenzene	5.6	U	40	5.6
103-65-1	N-Propylbenzene	6.0	U	40	6.0
95-47-6	o-Xylene	3.6	U	40	3.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.0	U	40	4.0
994-05-8	Tert-amyl methyl ether	4.4	U	200	4.4
637-92-3	Ethyl tert-butyl ether	6.0	U	200	6.0
127-18-4	Tetrachloroethene	6.0	U	40	6.0
108-88-3	Toluene	5.6	U	40	5.6
156-60-5	trans-1,2-Dichloroethene	7.6	U	40	7.6
10061-02-6	trans-1,3-Dichloropropene	27	U	40	27
79-01-6	Trichloroethene	1200		40	4.0
75-69-4	Trichlorofluoromethane	18	U	40	18
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	26	J	40	8.0
1330-20-7	Xylenes, Total	6.0	U	80	6.0
98-06-6	tert-Butylbenzene	5.6	U	40	5.6
106-93-4	1,2-Dibromoethane	4.8	U	40	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 | Lab Sample ID: 240-97836-7

Matrix: Water | Lab File ID: U1900409.d

Analysis Method: 8260C | Date Collected: 06/27/2018 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	106		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 Lab Sample ID: 240-97836-7

Matrix: Water Lab File ID: U1900409.d

Analysis Method: 8260C Date Collected: 06/27/2018 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 16:47

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 Lab Sample ID: 240-97836-7

Matrix: Water Lab File ID: U1900409.d

Analysis Method: 8260C Date Collected: 06/27/2018 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 16:47

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		40	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 | Lab Sample ID: 240-97836-6

Matrix: Water | Lab File ID: U1900408.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:25

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	25	3.5
71-55-6	1,1,1-Trichloroethane	6.0	U	25	6.0
79-34-5	1,1,2,2-Tetrachloroethane	3.3	U	25	3.3
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U	25	10
75-34-3	1,1-Dichloroethane	4.3	U	25	4.3
75-35-4	1,1-Dichloroethene	11	J	25	4.8
563-58-6	1,1-Dichloropropene	3.5	U	25	3.5
87-61-6	1,2,3-Trichlorobenzene	14	U	25	14
96-18-4	1,2,3-Trichloropropane	6.0	U	25	6.0
526-73-8	1,2,3-Trimethylbenzene	3.5	U	130	3.5
120-82-1	1,2,4-Trichlorobenzene	14	J	25	6.5
95-63-6	1,2,4-Trimethylbenzene	1.8	U	25	1.8
96-12-8	1,2-Dibromo-3-Chloropropane	23	U	50	23
95-50-1	1,2-Dichlorobenzene	3.8	U	25	3.8
107-06-2	1,2-Dichloroethane	39		25	5.3
78-87-5	1,2-Dichloropropane	3.8	U	25	3.8
541-73-1	1,3-Dichlorobenzene	3.8	U	25	3.8
142-28-9	1,3-Dichloropropane	5.3	U	25	5.3
106-46-7	1,4-Dichlorobenzene	5.5	J	25	4.0
594-20-7	2,2-Dichloropropane	7.8	U	25	7.8
78-93-3	2-Butanone (MEK)	29	U	250	29
110-75-8	2-Chloroethyl vinyl ether	6.5	U	250	6.5
95-49-8	2-Chlorotoluene	3.8	U	25	3.8
591-78-6	2-Hexanone	14	U	250	14
106-43-4	4-Chlorotoluene	2.3	U	25	2.3
99-87-6	4-Isopropyltoluene	3.3	U	25	3.3
108-10-1	4-Methyl-2-pentanone (MIBK)	11	U	250	11
67-64-1	Acetone	140	U	250	140
71-43-2	Benzene	7.4	J	25	3.3
108-86-1	Bromobenzene	3.0	U	25	3.0
75-25-2	Bromoform	19	U	25	19
74-83-9	Bromomethane	11	U	25	11
75-15-0	Carbon disulfide	7.0	U	25	7.0
56-23-5	Carbon tetrachloride	6.5	U	25	6.5
108-90-7	Chlorobenzene	57		25	3.5
124-48-1	Chlorodibromomethane	9.8	U	25	9.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 | Lab Sample ID: 240-97836-6

Matrix: Water | Lab File ID: U1900408.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:25

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	21	U	25	21
67-66-3	Chloroform	23	J	25	3.3
74-87-3	Chloromethane	5.0	U	25	5.0
156-59-2	cis-1,2-Dichloroethene	400		25	4.0
10061-01-5	cis-1,3-Dichloropropene	15	U	25	15
74-95-3	Dibromomethane	2.3	U	25	2.3
74-97-5	Bromochloromethane	3.5	U	25	3.5
75-71-8	Dichlorodifluoromethane	8.8	U	25	8.8
75-27-4	Bromodichloromethane	4.3	U	25	4.3
75-65-0	tert-Butyl alcohol	55	J *	1300	42
100-41-4	Ethylbenzene	2.8	U	25	2.8
87-68-3	Hexachlorobutadiene	21	U	25	21
108-20-3	Diisopropyl ether	4.3	U	250	4.3
98-82-8	Isopropylbenzene	2.3	U	25	2.3
1634-04-4	Methyl tert-butyl ether	1.8	U	25	1.8
75-09-2	Methylene Chloride	66	U	130	66
179601-23-1	m-Xylene & p-Xylene	2.0	U	50	2.0
91-20-3	Naphthalene	8.0	U	25	8.0
104-51-8	n-Butylbenzene	3.5	U	25	3.5
103-65-1	N-Propylbenzene	3.8	U	25	3.8
95-47-6	o-Xylene	2.5	J	25	2.3
135-98-8	sec-Butylbenzene	3.3	U	25	3.3
100-42-5	Styrene	2.5	U	25	2.5
994-05-8	Tert-amyl methyl ether	2.8	U	130	2.8
637-92-3	Ethyl tert-butyl ether	3.8	U	130	3.8
127-18-4	Tetrachloroethene	3.8	U	25	3.8
108-88-3	Toluene	3.5	U	25	3.5
156-60-5	trans-1,2-Dichloroethene	4.8	U	25	4.8
10061-02-6	trans-1,3-Dichloropropene	17	U	25	17
79-01-6	Trichloroethene	980		25	2.5
75-69-4	Trichlorofluoromethane	11	U	25	11
108-05-4	Vinyl acetate	4.8	U	50	4.8
75-01-4	Vinyl chloride	370		25	5.0
1330-20-7	Xylenes, Total	3.8	U	50	3.8
98-06-6	tert-Butylbenzene	3.5	U	25	3.5
106-93-4	1,2-Dibromoethane	3.0	U	25	3.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 Lab Sample ID: 240-97836-6

Matrix: Water Lab File ID: U1900408.d

Analysis Method: 8260C Date Collected: 06/27/2018 11:00

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 16:25

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	106		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 Lab Sample ID: 240-97836-6

Matrix: Water Lab File ID: U1900408.d

Analysis Method: 8260C Date Collected: 06/27/2018 11:00

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 16:25

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 | Lab Sample ID: 240-97836-6

Matrix: Water | Lab File ID: U1900408.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 16:25

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		25	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: U1900393.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 02:00

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.35	U	2.5	0.35
71-55-6	1,1,1-Trichloroethane	0.60	U	2.5	0.60
79-34-5	1,1,2,2-Tetrachloroethane	0.33	U	2.5	0.33
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U	2.5	1.0
75-34-3	1,1-Dichloroethane	0.43	U	2.5	0.43
75-35-4	1,1-Dichloroethene	1.3	J	2.5	0.48
563-58-6	1,1-Dichloropropene	0.35	U	2.5	0.35
87-61-6	1,2,3-Trichlorobenzene	1.4	U	2.5	1.4
96-18-4	1,2,3-Trichloropropane	0.60	U	2.5	0.60
526-73-8	1,2,3-Trimethylbenzene	0.35	U	13	0.35
120-82-1	1,2,4-Trichlorobenzene	0.65	U	2.5	0.65
95-63-6	1,2,4-Trimethylbenzene	0.18	U	2.5	0.18
96-12-8	1,2-Dibromo-3-Chloropropane	2.3	U	5.0	2.3
95-50-1	1,2-Dichlorobenzene	0.38	U	2.5	0.38
107-06-2	1,2-Dichloroethane	4.7		2.5	0.53
78-87-5	1,2-Dichloropropane	0.38	U	2.5	0.38
541-73-1	1,3-Dichlorobenzene	0.38	U	2.5	0.38
142-28-9	1,3-Dichloropropane	0.53	U	2.5	0.53
106-46-7	1,4-Dichlorobenzene	0.40	U	2.5	0.40
594-20-7	2,2-Dichloropropane	0.78	U	2.5	0.78
78-93-3	2-Butanone (MEK)	2.9	U	25	2.9
110-75-8	2-Chloroethyl vinyl ether	0.65	U	25	0.65
95-49-8	2-Chlorotoluene	0.38	U	2.5	0.38
591-78-6	2-Hexanone	1.4	U	25	1.4
106-43-4	4-Chlorotoluene	0.23	U	2.5	0.23
99-87-6	4-Isopropyltoluene	0.33	U	2.5	0.33
108-10-1	4-Methyl-2-pentanone (MIBK)	1.1	U	25	1.1
67-64-1	Acetone	14	U	25	14
71-43-2	Benzene	1.1	J	2.5	0.33
108-86-1	Bromobenzene	0.30	U	2.5	0.30
75-25-2	Bromoform	1.9	U	2.5	1.9
74-83-9	Bromomethane	1.1	U	2.5	1.1
75-15-0	Carbon disulfide	0.70	U	2.5	0.70
56-23-5	Carbon tetrachloride	0.65	U	2.5	0.65
108-90-7	Chlorobenzene	6.9		2.5	0.35
124-48-1	Chlorodibromomethane	0.98	U	2.5	0.98

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: U1900393.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 02:00

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	2.1	U	2.5	2.1
67-66-3	Chloroform	2.7		2.5	0.33
74-87-3	Chloromethane	0.50	U	2.5	0.50
156-59-2	cis-1,2-Dichloroethene	48		2.5	0.40
10061-01-5	cis-1,3-Dichloropropene	1.5	U	2.5	1.5
74-95-3	Dibromomethane	0.23	U	2.5	0.23
74-97-5	Bromochloromethane	0.35	U	2.5	0.35
75-71-8	Dichlorodifluoromethane	0.88	U	2.5	0.88
75-27-4	Bromodichloromethane	0.43	U	2.5	0.43
75-65-0	tert-Butyl alcohol	12	J *	130	4.2
100-41-4	Ethylbenzene	0.28	U	2.5	0.28
87-68-3	Hexachlorobutadiene	2.1	U	2.5	2.1
108-20-3	Diisopropyl ether	0.43	U	25	0.43
98-82-8	Isopropylbenzene	0.23	U	2.5	0.23
1634-04-4	Methyl tert-butyl ether	0.18	U	2.5	0.18
75-09-2	Methylene Chloride	6.6	U	13	6.6
179601-23-1	m-Xylene & p-Xylene	0.20	U	5.0	0.20
91-20-3	Naphthalene	0.80	U	2.5	0.80
104-51-8	n-Butylbenzene	0.35	U	2.5	0.35
103-65-1	N-Propylbenzene	0.38	U	2.5	0.38
95-47-6	o-Xylene	0.23	U	2.5	0.23
135-98-8	sec-Butylbenzene	0.33	U	2.5	0.33
100-42-5	Styrene	0.25	U	2.5	0.25
994-05-8	Tert-amyl methyl ether	0.28	U	13	0.28
637-92-3	Ethyl tert-butyl ether	0.38	U	13	0.38
127-18-4	Tetrachloroethene	0.38	U	2.5	0.38
108-88-3	Toluene	0.35	U	2.5	0.35
156-60-5	trans-1,2-Dichloroethene	0.48	U	2.5	0.48
10061-02-6	trans-1,3-Dichloropropene	1.7	U	2.5	1.7
79-01-6	Trichloroethene	110		2.5	0.25
75-69-4	Trichlorofluoromethane	1.1	U	2.5	1.1
108-05-4	Vinyl acetate	0.48	U	5.0	0.48
75-01-4	Vinyl chloride	46		2.5	0.50
1330-20-7	Xylenes, Total	0.38	U	5.0	0.38
98-06-6	tert-Butylbenzene	0.35	U	2.5	0.35
106-93-4	1,2-Dibromoethane	0.30	U	2.5	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: U1900393.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 02:00

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: U1900393.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 02:00

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: U1900393.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 02:00

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		2.5	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 | Lab Sample ID: 240-97969-2

Matrix: Water | Lab File ID: UXM12606.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:56

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.8	U	20	2.8
71-55-6	1,1,1-Trichloroethane	4.8	U	20	4.8
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	20	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	8.2	U	20	8.2
75-34-3	1,1-Dichloroethane	3.4	U	20	3.4
75-35-4	1,1-Dichloroethene	3.8	U	20	3.8
563-58-6	1,1-Dichloropropene	2.8	U	20	2.8
87-61-6	1,2,3-Trichlorobenzene	11	U	20	11
96-18-4	1,2,3-Trichloropropane	4.8	U	20	4.8
526-73-8	1,2,3-Trimethylbenzene	2.8	U	100	2.8
120-82-1	1,2,4-Trichlorobenzene	9.9	J	20	5.2
95-63-6	1,2,4-Trimethylbenzene	1.4	U	20	1.4
96-12-8	1,2-Dibromo-3-Chloropropane	18	U	40	18
95-50-1	1,2-Dichlorobenzene	3.0	U	20	3.0
107-06-2	1,2-Dichloroethane	4.4	J	20	4.2
78-87-5	1,2-Dichloropropane	3.0	U	20	3.0
541-73-1	1,3-Dichlorobenzene	5.7	J	20	3.0
142-28-9	1,3-Dichloropropane	4.2	U	20	4.2
106-46-7	1,4-Dichlorobenzene	39		20	3.2
594-20-7	2,2-Dichloropropane	6.2	U	20	6.2
78-93-3	2-Butanone (MEK)	23	U	200	23
110-75-8	2-Chloroethyl vinyl ether	5.2	U	200	5.2
95-49-8	2-Chlorotoluene	3.0	U	20	3.0
591-78-6	2-Hexanone	11	U	200	11
106-43-4	4-Chlorotoluene	1.8	U	20	1.8
99-87-6	4-Isopropyltoluene	2.6	U	20	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	8.4	U	200	8.4
67-64-1	Acetone	110	U	200	110
71-43-2	Benzene	2.6	U	20	2.6
108-86-1	Bromobenzene	2.4	U	20	2.4
75-25-2	Bromoform	15	U	20	15
74-83-9	Bromomethane	8.4	U	20	8.4
75-15-0	Carbon disulfide	5.6	U	20	5.6
56-23-5	Carbon tetrachloride	5.2	U	20	5.2
108-90-7	Chlorobenzene	2.8	U	20	2.8
124-48-1	Chlorodibromomethane	7.8	U	20	7.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 | Lab Sample ID: 240-97969-2

Matrix: Water | Lab File ID: UXM12606.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:56

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	17	U	20	17
67-66-3	Chloroform	2.6	U	20	2.6
74-87-3	Chloromethane	4.0	U	20	4.0
156-59-2	cis-1,2-Dichloroethene	570		20	3.2
10061-01-5	cis-1,3-Dichloropropene	12	U	20	12
74-95-3	Dibromomethane	1.8	U	20	1.8
74-97-5	Bromochloromethane	2.8	U	20	2.8
75-71-8	Dichlorodifluoromethane	7.0	U	20	7.0
75-27-4	Bromodichloromethane	3.4	U	20	3.4
75-65-0	tert-Butyl alcohol	34	U	1000	34
100-41-4	Ethylbenzene	2.2	U	20	2.2
87-68-3	Hexachlorobutadiene	17	U	20	17
108-20-3	Diisopropyl ether	3.4	U	200	3.4
98-82-8	Isopropylbenzene	1.8	U	20	1.8
1634-04-4	Methyl tert-butyl ether	1.4	U	20	1.4
75-09-2	Methylene Chloride	52	U	100	52
179601-23-1	m-Xylene & p-Xylene	1.6	U	40	1.6
91-20-3	Naphthalene	6.4	U	20	6.4
104-51-8	n-Butylbenzene	2.8	U	20	2.8
103-65-1	N-Propylbenzene	3.0	U	20	3.0
95-47-6	o-Xylene	1.8	U	20	1.8
135-98-8	sec-Butylbenzene	2.6	U	20	2.6
100-42-5	Styrene	2.0	U	20	2.0
994-05-8	Tert-amyl methyl ether	2.2	U	100	2.2
637-92-3	Ethyl tert-butyl ether	3.0	U	100	3.0
127-18-4	Tetrachloroethene	3.0	U	20	3.0
108-88-3	Toluene	2.8	U	20	2.8
156-60-5	trans-1,2-Dichloroethene	3.8	U	20	3.8
10061-02-6	trans-1,3-Dichloropropene	13	U	20	13
79-01-6	Trichloroethene	370		20	2.0
75-69-4	Trichlorofluoromethane	9.0	U	20	9.0
108-05-4	Vinyl acetate	3.8	U	40	3.8
75-01-4	Vinyl chloride	210		20	4.0
1330-20-7	Xylenes, Total	3.0	U	40	3.0
98-06-6	tert-Butylbenzene	2.8	U	20	2.8
106-93-4	1,2-Dibromoethane	2.4	U	20	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 | Lab Sample ID: 240-97969-2

Matrix: Water | Lab File ID: UXM12606.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:56

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	84		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 | Lab Sample ID: 240-97969-2

Matrix: Water | Lab File ID: UXM12606.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:56

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Matrix: Water Lab File ID: UXM12606.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 15:56

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		20	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 | Lab Sample ID: 240-97969-3

Matrix: Water | Lab File ID: UXM12607.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 16:20

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	35	U	250	35
71-55-6	1,1,1-Trichloroethane	60	U	250	60
79-34-5	1,1,2,2-Tetrachloroethane	33	U	250	33
76-13-1	1,1,2-Trichlorotrifluoroethane	100	U	250	100
75-34-3	1,1-Dichloroethane	43	U	250	43
75-35-4	1,1-Dichloroethene	48	U	250	48
563-58-6	1,1-Dichloropropene	35	U	250	35
87-61-6	1,2,3-Trichlorobenzene	140	U	250	140
96-18-4	1,2,3-Trichloropropane	60	U	250	60
526-73-8	1,2,3-Trimethylbenzene	35	U	1300	35
120-82-1	1,2,4-Trichlorobenzene	65	U	250	65
95-63-6	1,2,4-Trimethylbenzene	18	U	250	18
96-12-8	1,2-Dibromo-3-Chloropropane	230	U	500	230
95-50-1	1,2-Dichlorobenzene	38	U	250	38
107-06-2	1,2-Dichloroethane	53	U	250	53
78-87-5	1,2-Dichloropropane	38	U	250	38
541-73-1	1,3-Dichlorobenzene	38	U	250	38
142-28-9	1,3-Dichloropropane	53	U	250	53
106-46-7	1,4-Dichlorobenzene	50	J	250	40
594-20-7	2,2-Dichloropropane	78	U	250	78
78-93-3	2-Butanone (MEK)	290	U	2500	290
110-75-8	2-Chloroethyl vinyl ether	65	U	2500	65
95-49-8	2-Chlorotoluene	38	U	250	38
591-78-6	2-Hexanone	140	U	2500	140
106-43-4	4-Chlorotoluene	23	U	250	23
99-87-6	4-Isopropyltoluene	33	U	250	33
108-10-1	4-Methyl-2-pentanone (MIBK)	110	U	2500	110
67-64-1	Acetone	1400	U	2500	1400
71-43-2	Benzene	33	U	250	33
108-86-1	Bromobenzene	30	U	250	30
75-25-2	Bromoform	190	U	250	190
74-83-9	Bromomethane	110	U	250	110
75-15-0	Carbon disulfide	70	U	250	70
56-23-5	Carbon tetrachloride	65	U	250	65
108-90-7	Chlorobenzene	35	U	250	35
124-48-1	Chlorodibromomethane	98	U	250	98

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 | Lab Sample ID: 240-97969-3

Matrix: Water | Lab File ID: UXM12607.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 16:20

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	210	U	250	210
67-66-3	Chloroform	33	U	250	33
74-87-3	Chloromethane	50	U	250	50
156-59-2	cis-1,2-Dichloroethene	7200		250	40
10061-01-5	cis-1,3-Dichloropropene	150	U	250	150
74-95-3	Dibromomethane	23	U	250	23
74-97-5	Bromochloromethane	35	U	250	35
75-71-8	Dichlorodifluoromethane	88	U	250	88
75-27-4	Bromodichloromethane	43	U	250	43
75-65-0	tert-Butyl alcohol	420	U	13000	420
100-41-4	Ethylbenzene	28	U	250	28
87-68-3	Hexachlorobutadiene	210	U	250	210
108-20-3	Diisopropyl ether	43	U	2500	43
98-82-8	Isopropylbenzene	23	U	250	23
1634-04-4	Methyl tert-butyl ether	18	U	250	18
75-09-2	Methylene Chloride	660	U	1300	660
179601-23-1	m-Xylene & p-Xylene	20	U	500	20
91-20-3	Naphthalene	80	U	250	80
104-51-8	n-Butylbenzene	35	U	250	35
103-65-1	N-Propylbenzene	38	U	250	38
95-47-6	o-Xylene	23	U	250	23
135-98-8	sec-Butylbenzene	33	U	250	33
100-42-5	Styrene	25	U	250	25
994-05-8	Tert-amyl methyl ether	28	U	1300	28
637-92-3	Ethyl tert-butyl ether	38	U	1300	38
127-18-4	Tetrachloroethene	38	U	250	38
108-88-3	Toluene	73	J	250	35
156-60-5	trans-1,2-Dichloroethene	48	U	250	48
10061-02-6	trans-1,3-Dichloropropene	170	U	250	170
79-01-6	Trichloroethene	1200		250	25
75-69-4	Trichlorofluoromethane	110	U	250	110
108-05-4	Vinyl acetate	48	U	500	48
75-01-4	Vinyl chloride	7700		250	50
1330-20-7	Xylenes, Total	38	U	500	38
98-06-6	tert-Butylbenzene	35	U	250	35
106-93-4	1,2-Dibromoethane	30	U	250	30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Matrix: Water Lab File ID: UXM12607.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 16:20

Soil Aliquot Vol: Dilution Factor: 250

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Matrix: Water Lab File ID: UXM12607.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 16:20

Soil Aliquot Vol: Dilution Factor: 250

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 | Lab Sample ID: 240-97969-3

Matrix: Water | Lab File ID: UXM12607.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 16:20

Soil Aliquot Vol: | Dilution Factor: 250

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		250	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: UXM12626.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:49

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.56	U	4.0	0.56
71-55-6	1,1,1-Trichloroethane	0.96	U	4.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	0.52	U	4.0	0.52
76-13-1	1,1,2-Trichlorotrifluoroethane	1.6	U	4.0	1.6
75-34-3	1,1-Dichloroethane	0.68	U	4.0	0.68
75-35-4	1,1-Dichloroethene	0.76	U	4.0	0.76
563-58-6	1,1-Dichloropropene	0.56	U	4.0	0.56
87-61-6	1,2,3-Trichlorobenzene	2.2	U	4.0	2.2
96-18-4	1,2,3-Trichloropropane	0.96	U	4.0	0.96
526-73-8	1,2,3-Trimethylbenzene	0.56	U	20	0.56
120-82-1	1,2,4-Trichlorobenzene	1.0	U	4.0	1.0
95-63-6	1,2,4-Trimethylbenzene	0.28	U	4.0	0.28
96-12-8	1,2-Dibromo-3-Chloropropane	3.6	U	8.0	3.6
95-50-1	1,2-Dichlorobenzene	0.60	U	4.0	0.60
107-06-2	1,2-Dichloroethane	0.84	U	4.0	0.84
78-87-5	1,2-Dichloropropane	0.60	U	4.0	0.60
541-73-1	1,3-Dichlorobenzene	0.60	U	4.0	0.60
142-28-9	1,3-Dichloropropane	0.84	U	4.0	0.84
106-46-7	1,4-Dichlorobenzene	0.95	J	4.0	0.64
594-20-7	2,2-Dichloropropane	1.2	U	4.0	1.2
78-93-3	2-Butanone (MEK)	4.6	U	40	4.6
110-75-8	2-Chloroethyl vinyl ether	1.0	U	40	1.0
95-49-8	2-Chlorotoluene	0.60	U	4.0	0.60
591-78-6	2-Hexanone	2.2	U	40	2.2
106-43-4	4-Chlorotoluene	0.36	U	4.0	0.36
99-87-6	4-Isopropyltoluene	0.52	U	4.0	0.52
108-10-1	4-Methyl-2-pentanone (MIBK)	1.7	U	40	1.7
67-64-1	Acetone	22	U	40	22
71-43-2	Benzene	1.1	J	4.0	0.52
108-86-1	Bromobenzene	0.48	U	4.0	0.48
75-25-2	Bromoform	3.0	U	4.0	3.0
74-83-9	Bromomethane	1.7	U	4.0	1.7
75-15-0	Carbon disulfide	1.1	U	4.0	1.1
56-23-5	Carbon tetrachloride	1.0	U	4.0	1.0
108-90-7	Chlorobenzene	1.1	J	4.0	0.56
124-48-1	Chlorodibromomethane	1.6	U	4.0	1.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: UXM12626.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:49

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	3.3	U	4.0	3.3
67-66-3	Chloroform	0.52	U	4.0	0.52
74-87-3	Chloromethane	0.80	U	4.0	0.80
156-59-2	cis-1,2-Dichloroethene	1.2	J	4.0	0.64
10061-01-5	cis-1,3-Dichloropropene	2.4	U	4.0	2.4
74-95-3	Dibromomethane	0.36	U	4.0	0.36
74-97-5	Bromochloromethane	0.56	U	4.0	0.56
75-71-8	Dichlorodifluoromethane	1.4	U	4.0	1.4
75-27-4	Bromodichloromethane	0.68	U	4.0	0.68
75-65-0	tert-Butyl alcohol	6.8	U	200	6.8
100-41-4	Ethylbenzene	0.44	U	4.0	0.44
87-68-3	Hexachlorobutadiene	3.3	U	4.0	3.3
108-20-3	Diisopropyl ether	0.68	U	40	0.68
98-82-8	Isopropylbenzene	0.36	U	4.0	0.36
1634-04-4	Methyl tert-butyl ether	0.28	U	4.0	0.28
75-09-2	Methylene Chloride	10	U	20	10
179601-23-1	m-Xylene & p-Xylene	0.32	U	8.0	0.32
91-20-3	Naphthalene	1.3	U	4.0	1.3
104-51-8	n-Butylbenzene	0.56	U	4.0	0.56
103-65-1	N-Propylbenzene	0.60	U	4.0	0.60
95-47-6	o-Xylene	0.36	U	4.0	0.36
135-98-8	sec-Butylbenzene	0.52	U	4.0	0.52
100-42-5	Styrene	0.40	U	4.0	0.40
994-05-8	Tert-amyl methyl ether	0.44	U	20	0.44
637-92-3	Ethyl tert-butyl ether	0.60	U	20	0.60
127-18-4	Tetrachloroethene	0.60	U	4.0	0.60
108-88-3	Toluene	0.64	J	4.0	0.56
156-60-5	trans-1,2-Dichloroethene	0.76	U	4.0	0.76
10061-02-6	trans-1,3-Dichloropropene	2.7	U	4.0	2.7
79-01-6	Trichloroethene	0.40	U	4.0	0.40
75-69-4	Trichlorofluoromethane	1.8	U	4.0	1.8
108-05-4	Vinyl acetate	0.76	U	8.0	0.76
75-01-4	Vinyl chloride	120		4.0	0.80
1330-20-7	Xylenes, Total	0.60	U	8.0	0.60
98-06-6	tert-Butylbenzene	0.56	U	4.0	0.56
106-93-4	1,2-Dibromoethane	0.48	U	4.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: UXM12626.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:49

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	90		73-120
1868-53-7	Dibromofluoromethane (Surr)	87		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: UXM12626.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:49

Soil Aliquot Vol: | Dilution Factor: 4

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Matrix: Water Lab File ID: UXM12626.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 12:49

Soil Aliquot Vol: Dilution Factor: 4

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		4.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: UXM12511.D

Analysis Method: 8260C | Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	23	U	170	23
71-55-6	1,1,1-Trichloroethane	68	J	170	40
79-34-5	1,1,2,2-Tetrachloroethane	22	U	170	22
76-13-1	1,1,2-Trichlorotrifluoroethane	68	U	170	68
75-34-3	1,1-Dichloroethane	28	U	170	28
75-35-4	1,1-Dichloroethene	150	J	170	32
563-58-6	1,1-Dichloropropene	23	U	170	23
87-61-6	1,2,3-Trichlorobenzene	90	U	170	90
96-18-4	1,2,3-Trichloropropane	40	U	170	40
526-73-8	1,2,3-Trimethylbenzene	23	U	830	23
120-82-1	1,2,4-Trichlorobenzene	43	U	170	43
95-63-6	1,2,4-Trimethylbenzene	12	U	170	12
96-12-8	1,2-Dibromo-3-Chloropropane	150	U	330	150
95-50-1	1,2-Dichlorobenzene	25	U	170	25
107-06-2	1,2-Dichloroethane	35	U	170	35
78-87-5	1,2-Dichloropropane	25	U	170	25
541-73-1	1,3-Dichlorobenzene	25	U	170	25
142-28-9	1,3-Dichloropropane	35	U	170	35
106-46-7	1,4-Dichlorobenzene	27	U	170	27
594-20-7	2,2-Dichloropropane	52	U	170	52
78-93-3	2-Butanone (MEK)	190	U	1700	190
110-75-8	2-Chloroethyl vinyl ether	43	U	1700	43
95-49-8	2-Chlorotoluene	25	U	170	25
591-78-6	2-Hexanone	90	U	1700	90
106-43-4	4-Chlorotoluene	15	U	170	15
99-87-6	4-Isopropyltoluene	22	U	170	22
108-10-1	4-Methyl-2-pentanone (MIBK)	70	U	1700	70
67-64-1	Acetone	900	U	1700	900
71-43-2	Benzene	22	U	170	22
108-86-1	Bromobenzene	20	U	170	20
75-25-2	Bromoform	130	U	170	130
74-83-9	Bromomethane	70	U	170	70
75-15-0	Carbon disulfide	47	U	170	47
56-23-5	Carbon tetrachloride	43	U	170	43
108-90-7	Chlorobenzene	23	U	170	23
124-48-1	Chlorodibromomethane	65	U	170	65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: UXM12511.D

Analysis Method: 8260C | Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	140	U	170	140
67-66-3	Chloroform	22	U	170	22
74-87-3	Chloromethane	33	U	170	33
156-59-2	cis-1,2-Dichloroethene	2100		170	27
10061-01-5	cis-1,3-Dichloropropene	100	U	170	100
74-95-3	Dibromomethane	15	U	170	15
74-97-5	Bromochloromethane	23	U	170	23
75-71-8	Dichlorodifluoromethane	58	U	170	58
75-27-4	Bromodichloromethane	28	U	170	28
75-65-0	tert-Butyl alcohol	280	U	8300	280
100-41-4	Ethylbenzene	18	U	170	18
87-68-3	Hexachlorobutadiene	140	U	170	140
108-20-3	Diisopropyl ether	28	U	1700	28
98-82-8	Isopropylbenzene	15	U	170	15
1634-04-4	Methyl tert-butyl ether	12	U	170	12
75-09-2	Methylene Chloride	440	U	830	440
179601-23-1	m-Xylene & p-Xylene	13	U	330	13
91-20-3	Naphthalene	53	U	170	53
104-51-8	n-Butylbenzene	23	U	170	23
103-65-1	N-Propylbenzene	25	U	170	25
95-47-6	o-Xylene	15	U	170	15
135-98-8	sec-Butylbenzene	22	U	170	22
100-42-5	Styrene	17	U	170	17
994-05-8	Tert-amyl methyl ether	18	U	830	18
637-92-3	Ethyl tert-butyl ether	25	U	830	25
127-18-4	Tetrachloroethene	25	U	170	25
108-88-3	Toluene	23	U	170	23
156-60-5	trans-1,2-Dichloroethene	39	J	170	32
10061-02-6	trans-1,3-Dichloropropene	110	U	170	110
79-01-6	Trichloroethene	6400		170	17
75-69-4	Trichlorofluoromethane	75	U	170	75
108-05-4	Vinyl acetate	32	U	330	32
75-01-4	Vinyl chloride	280		170	33
1330-20-7	Xylenes, Total	25	U	330	25
98-06-6	tert-Butylbenzene	23	U	170	23
106-93-4	1,2-Dibromoethane	20	U	170	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: UXM12511.D

Analysis Method: 8260C | Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	92		73-120
1868-53-7	Dibromofluoromethane (Surr)	90		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 Lab Sample ID: 240-97912-2

Matrix: Water Lab File ID: UXM12511.D

Analysis Method: 8260C Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: UXM12511.D

Analysis Method: 8260C | Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: | Dilution Factor: 166.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		170	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 | Lab Sample ID: 240-97912-3

Matrix: Water | Lab File ID: UXM12512.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	18	U	130	18
71-55-6	1,1,1-Trichloroethane	30	U	130	30
79-34-5	1,1,2,2-Tetrachloroethane	16	U	130	16
76-13-1	1,1,2-Trichlorotrifluoroethane	51	U	130	51
75-34-3	1,1-Dichloroethane	26	J	130	21
75-35-4	1,1-Dichloroethene	130		130	24
563-58-6	1,1-Dichloropropene	18	U	130	18
87-61-6	1,2,3-Trichlorobenzene	68	U	130	68
96-18-4	1,2,3-Trichloropropane	30	U	130	30
526-73-8	1,2,3-Trimethylbenzene	18	U	630	18
120-82-1	1,2,4-Trichlorobenzene	33	U	130	33
95-63-6	1,2,4-Trimethylbenzene	8.8	U	130	8.8
96-12-8	1,2-Dibromo-3-Chloropropane	110	U	250	110
95-50-1	1,2-Dichlorobenzene	19	U	130	19
107-06-2	1,2-Dichloroethane	26	U	130	26
78-87-5	1,2-Dichloropropane	19	U	130	19
541-73-1	1,3-Dichlorobenzene	19	U	130	19
142-28-9	1,3-Dichloropropane	26	U	130	26
106-46-7	1,4-Dichlorobenzene	20	U	130	20
594-20-7	2,2-Dichloropropane	39	U	130	39
78-93-3	2-Butanone (MEK)	150	U	1300	150
110-75-8	2-Chloroethyl vinyl ether	33	U	1300	33
95-49-8	2-Chlorotoluene	19	U	130	19
591-78-6	2-Hexanone	68	U	1300	68
106-43-4	4-Chlorotoluene	11	U	130	11
99-87-6	4-Isopropyltoluene	16	U	130	16
108-10-1	4-Methyl-2-pentanone (MIBK)	53	U	1300	53
67-64-1	Acetone	680	U	1300	680
71-43-2	Benzene	16	U	130	16
108-86-1	Bromobenzene	15	U	130	15
75-25-2	Bromoform	95	U	130	95
74-83-9	Bromomethane	53	U	130	53
75-15-0	Carbon disulfide	35	U	130	35
56-23-5	Carbon tetrachloride	33	U	130	33
108-90-7	Chlorobenzene	18	U	130	18
124-48-1	Chlorodibromomethane	49	U	130	49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 | Lab Sample ID: 240-97912-3

Matrix: Water | Lab File ID: UXM12512.D

Analysis Method: 8260C | Date Collected: 06/28/2018 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 125

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	100	U	130	100
67-66-3	Chloroform	16	U	130	16
74-87-3	Chloromethane	25	U	130	25
156-59-2	cis-1,2-Dichloroethene	1300		130	20
10061-01-5	cis-1,3-Dichloropropene	76	U	130	76
74-95-3	Dibromomethane	11	U	130	11
74-97-5	Bromochloromethane	18	U	130	18
75-71-8	Dichlorodifluoromethane	44	U	130	44
75-27-4	Bromodichloromethane	21	U	130	21
75-65-0	tert-Butyl alcohol	210	U	6300	210
100-41-4	Ethylbenzene	14	U	130	14
87-68-3	Hexachlorobutadiene	100	U	130	100
108-20-3	Diisopropyl ether	21	U	1300	21
98-82-8	Isopropylbenzene	11	U	130	11
1634-04-4	Methyl tert-butyl ether	8.8	U	130	8.8
75-09-2	Methylene Chloride	330	U	630	330
179601-23-1	m-Xylene & p-Xylene	10	U	250	10
91-20-3	Naphthalene	40	U	130	40
104-51-8	n-Butylbenzene	18	U	130	18
103-65-1	N-Propylbenzene	19	U	130	19
95-47-6	o-Xylene	11	U	130	11
135-98-8	sec-Butylbenzene	16	U	130	16
100-42-5	Styrene	13	U	130	13
994-05-8	Tert-amyl methyl ether	14	U	630	14
637-92-3	Ethyl tert-butyl ether	19	U	630	19
127-18-4	Tetrachloroethene	19	U	130	19
108-88-3	Toluene	18	U	130	18
156-60-5	trans-1,2-Dichloroethene	24	U	130	24
10061-02-6	trans-1,3-Dichloropropene	84	U	130	84
79-01-6	Trichloroethene	3600		130	13
75-69-4	Trichlorofluoromethane	56	U	130	56
108-05-4	Vinyl acetate	24	U	250	24
75-01-4	Vinyl chloride	530		130	25
1330-20-7	Xylenes, Total	19	U	250	19
98-06-6	tert-Butylbenzene	18	U	130	18
106-93-4	1,2-Dibromoethane	15	U	130	15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Matrix: Water Lab File ID: UXM12512.D

Analysis Method: 8260C Date Collected: 06/28/2018 11:30

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 18:19

Soil Aliquot Vol: Dilution Factor: 125

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Matrix: Water Lab File ID: UXM12512.D

Analysis Method: 8260C Date Collected: 06/28/2018 11:30

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 18:19

Soil Aliquot Vol: Dilution Factor: 125

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Matrix: Water Lab File ID: UXM12512.D

Analysis Method: 8260C Date Collected: 06/28/2018 11:30

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 18:19

Soil Aliquot Vol: Dilution Factor: 125

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		130	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: UXM12513.D

Analysis Method: 8260C | Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 18:43

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.8	U	20	2.8
71-55-6	1,1,1-Trichloroethane	4.8	U	20	4.8
79-34-5	1,1,2,2-Tetrachloroethane	2.6	U	20	2.6
76-13-1	1,1,2-Trichlorotrifluoroethane	8.2	U	20	8.2
75-34-3	1,1-Dichloroethane	4.0	J	20	3.4
75-35-4	1,1-Dichloroethene	17	J	20	3.8
563-58-6	1,1-Dichloropropene	2.8	U	20	2.8
87-61-6	1,2,3-Trichlorobenzene	11	U	20	11
96-18-4	1,2,3-Trichloropropane	4.8	U	20	4.8
526-73-8	1,2,3-Trimethylbenzene	2.8	U	100	2.8
120-82-1	1,2,4-Trichlorobenzene	5.2	U	20	5.2
95-63-6	1,2,4-Trimethylbenzene	1.4	U	20	1.4
96-12-8	1,2-Dibromo-3-Chloropropane	18	U	40	18
95-50-1	1,2-Dichlorobenzene	3.0	U	20	3.0
107-06-2	1,2-Dichloroethane	6.0	J	20	4.2
78-87-5	1,2-Dichloropropane	3.0	U	20	3.0
541-73-1	1,3-Dichlorobenzene	3.0	U	20	3.0
142-28-9	1,3-Dichloropropane	4.2	U	20	4.2
106-46-7	1,4-Dichlorobenzene	3.2	U	20	3.2
594-20-7	2,2-Dichloropropane	6.2	U	20	6.2
78-93-3	2-Butanone (MEK)	23	U	200	23
110-75-8	2-Chloroethyl vinyl ether	5.2	U	200	5.2
95-49-8	2-Chlorotoluene	3.0	U	20	3.0
591-78-6	2-Hexanone	11	U	200	11
106-43-4	4-Chlorotoluene	1.8	U	20	1.8
99-87-6	4-Isopropyltoluene	2.6	U	20	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	8.4	U	200	8.4
67-64-1	Acetone	110	U	200	110
71-43-2	Benzene	2.6	U	20	2.6
108-86-1	Bromobenzene	2.4	U	20	2.4
75-25-2	Bromoform	15	U	20	15
74-83-9	Bromomethane	8.4	U	20	8.4
75-15-0	Carbon disulfide	5.6	U	20	5.6
56-23-5	Carbon tetrachloride	5.2	U	20	5.2
108-90-7	Chlorobenzene	2.8	U	20	2.8
124-48-1	Chlorodibromomethane	7.8	U	20	7.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: UXM12513.D

Analysis Method: 8260C | Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 18:43

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	17	U	20	17
67-66-3	Chloroform	2.6	U	20	2.6
74-87-3	Chloromethane	4.0	U	20	4.0
156-59-2	cis-1,2-Dichloroethene	170		20	3.2
10061-01-5	cis-1,3-Dichloropropene	12	U	20	12
74-95-3	Dibromomethane	1.8	U	20	1.8
74-97-5	Bromochloromethane	2.8	U	20	2.8
75-71-8	Dichlorodifluoromethane	7.0	U	20	7.0
75-27-4	Bromodichloromethane	3.4	U	20	3.4
75-65-0	tert-Butyl alcohol	34	U	1000	34
100-41-4	Ethylbenzene	2.2	U	20	2.2
87-68-3	Hexachlorobutadiene	17	U	20	17
108-20-3	Diisopropyl ether	3.4	U	200	3.4
98-82-8	Isopropylbenzene	1.8	U	20	1.8
1634-04-4	Methyl tert-butyl ether	1.4	U	20	1.4
75-09-2	Methylene Chloride	52	U	100	52
179601-23-1	m-Xylene & p-Xylene	1.6	U	40	1.6
91-20-3	Naphthalene	6.4	U	20	6.4
104-51-8	n-Butylbenzene	2.8	U	20	2.8
103-65-1	N-Propylbenzene	3.0	U	20	3.0
95-47-6	o-Xylene	1.8	U	20	1.8
135-98-8	sec-Butylbenzene	2.6	U	20	2.6
100-42-5	Styrene	2.0	U	20	2.0
994-05-8	Tert-amyl methyl ether	2.2	U	100	2.2
637-92-3	Ethyl tert-butyl ether	3.0	U	100	3.0
127-18-4	Tetrachloroethene	3.0	U	20	3.0
108-88-3	Toluene	2.8	U	20	2.8
156-60-5	trans-1,2-Dichloroethene	3.8	U	20	3.8
10061-02-6	trans-1,3-Dichloropropene	13	U	20	13
79-01-6	Trichloroethene	670		20	2.0
75-69-4	Trichlorofluoromethane	9.0	U	20	9.0
108-05-4	Vinyl acetate	3.8	U	40	3.8
75-01-4	Vinyl chloride	37		20	4.0
1330-20-7	Xylenes, Total	3.0	U	40	3.0
98-06-6	tert-Butylbenzene	2.8	U	20	2.8
106-93-4	1,2-Dibromoethane	2.4	U	20	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Matrix: Water Lab File ID: UXM12513.D

Analysis Method: 8260C Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 18:43

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		73-120
1868-53-7	Dibromofluoromethane (Surr)	88		69-124
460-00-4	4-Bromofluorobenzene (Surr)	94		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Matrix: Water Lab File ID: UXM12513.D

Analysis Method: 8260C Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 18:43

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: UXM12513.D

Analysis Method: 8260C | Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 18:43

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		20	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 | Lab Sample ID: 240-97836-2

Matrix: Water | Lab File ID: U1900364.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:44

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	7.0	U	50	7.0
71-55-6	1,1,1-Trichloroethane	12	U	50	12
79-34-5	1,1,2,2-Tetrachloroethane	6.5	U	50	6.5
76-13-1	1,1,2-Trichlorotrifluoroethane	21	U	50	21
75-34-3	1,1-Dichloroethane	8.5	U	50	8.5
75-35-4	1,1-Dichloroethene	9.5	U	50	9.5
563-58-6	1,1-Dichloropropene	7.0	U	50	7.0
87-61-6	1,2,3-Trichlorobenzene	27	U	50	27
96-18-4	1,2,3-Trichloropropane	12	U	50	12
526-73-8	1,2,3-Trimethylbenzene	7.0	U	250	7.0
120-82-1	1,2,4-Trichlorobenzene	13	U	50	13
95-63-6	1,2,4-Trimethylbenzene	3.5	U	50	3.5
96-12-8	1,2-Dibromo-3-Chloropropane	46	U	100	46
95-50-1	1,2-Dichlorobenzene	7.5	U	50	7.5
107-06-2	1,2-Dichloroethane	11	U	50	11
78-87-5	1,2-Dichloropropane	7.5	U	50	7.5
541-73-1	1,3-Dichlorobenzene	7.5	U	50	7.5
142-28-9	1,3-Dichloropropane	11	U	50	11
106-46-7	1,4-Dichlorobenzene	8.0	U	50	8.0
594-20-7	2,2-Dichloropropane	16	U	50	16
78-93-3	2-Butanone (MEK)	58	U	500	58
110-75-8	2-Chloroethyl vinyl ether	13	U	500	13
95-49-8	2-Chlorotoluene	7.5	U	50	7.5
591-78-6	2-Hexanone	27	U	500	27
106-43-4	4-Chlorotoluene	4.5	U	50	4.5
99-87-6	4-Isopropyltoluene	6.5	U	50	6.5
108-10-1	4-Methyl-2-pentanone (MIBK)	21	U	500	21
67-64-1	Acetone	4200		500	270
71-43-2	Benzene	6.5	U	50	6.5
108-86-1	Bromobenzene	6.0	U	50	6.0
75-25-2	Bromoform	38	U	50	38
74-83-9	Bromomethane	21	U	50	21
75-15-0	Carbon disulfide	14	U	50	14
56-23-5	Carbon tetrachloride	13	U	50	13
108-90-7	Chlorobenzene	7.0	U	50	7.0
124-48-1	Chlorodibromomethane	20	U	50	20

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 | Lab Sample ID: 240-97836-2

Matrix: Water | Lab File ID: U1900364.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:44

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	42	U	50	42
67-66-3	Chloroform	6.5	U	50	6.5
74-87-3	Chloromethane	10	U	50	10
156-59-2	cis-1,2-Dichloroethene	8.6	J	50	8.0
10061-01-5	cis-1,3-Dichloropropene	31	U	50	31
74-95-3	Dibromomethane	4.5	U	50	4.5
74-97-5	Bromochloromethane	7.0	U	50	7.0
75-71-8	Dichlorodifluoromethane	18	U	50	18
75-27-4	Bromodichloromethane	8.5	U	50	8.5
75-65-0	tert-Butyl alcohol	7100		2500	85
100-41-4	Ethylbenzene	5.5	U	50	5.5
87-68-3	Hexachlorobutadiene	42	U	50	42
108-20-3	Diisopropyl ether	8.5	U	500	8.5
98-82-8	Isopropylbenzene	4.5	U	50	4.5
1634-04-4	Methyl tert-butyl ether	3.5	U	50	3.5
75-09-2	Methylene Chloride	130	U	250	130
179601-23-1	m-Xylene & p-Xylene	4.0	U	100	4.0
91-20-3	Naphthalene	16	U	50	16
104-51-8	n-Butylbenzene	7.0	U	50	7.0
103-65-1	N-Propylbenzene	7.5	U	50	7.5
95-47-6	o-Xylene	4.5	U	50	4.5
135-98-8	sec-Butylbenzene	6.5	U	50	6.5
100-42-5	Styrene	5.0	U	50	5.0
994-05-8	Tert-amyl methyl ether	5.5	U	250	5.5
637-92-3	Ethyl tert-butyl ether	7.5	U	250	7.5
127-18-4	Tetrachloroethene	7.5	U	50	7.5
108-88-3	Toluene	7.0	U	50	7.0
156-60-5	trans-1,2-Dichloroethene	9.5	U	50	9.5
10061-02-6	trans-1,3-Dichloropropene	34	U	50	34
79-01-6	Trichloroethene	12	J	50	5.0
75-69-4	Trichlorofluoromethane	23	U	50	23
108-05-4	Vinyl acetate	9.5	U	100	9.5
75-01-4	Vinyl chloride	10	U	50	10
1330-20-7	Xylenes, Total	7.5	U	100	7.5
98-06-6	tert-Butylbenzene	7.0	U	50	7.0
106-93-4	1,2-Dibromoethane	6.0	U	50	6.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 | Lab Sample ID: 240-97836-2

Matrix: Water | Lab File ID: U1900364.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:44

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 | Lab Sample ID: 240-97836-2

Matrix: Water | Lab File ID: U1900364.d

Analysis Method: 8260C | Date Collected: 06/27/2018 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:44

Soil Aliquot Vol: | Dilution Factor: 50

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Matrix: Water Lab File ID: U1900364.d

Analysis Method: 8260C Date Collected: 06/27/2018 09:55

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 01:44

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		50	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 | Lab Sample ID: 240-97836-3

Matrix: Water | Lab File ID: U1900391.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:17

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 | Lab Sample ID: 240-97836-3

Matrix: Water | Lab File ID: U1900391.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:17

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	44		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U *	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	1.6		1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	19		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	2.2		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 Lab Sample ID: 240-97836-3

Matrix: Water Lab File ID: U1900391.d

Analysis Method: 8260C Date Collected: 06/27/2018 11:17

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 01:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	105		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 | Lab Sample ID: 240-97836-3

Matrix: Water | Lab File ID: U1900391.d

Analysis Method: 8260C | Date Collected: 06/27/2018 11:17

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
1066-40-6	Silanol, trimethyl-	4.54	2.7	T J N	78%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 Lab Sample ID: 240-97836-3

Matrix: Water Lab File ID: U1900391.d

Analysis Method: 8260C Date Collected: 06/27/2018 11:17

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 01:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: U1900392.d

Analysis Method: 8260C | Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	14	U	100	14
71-55-6	1,1,1-Trichloroethane	24	U	100	24
79-34-5	1,1,2,2-Tetrachloroethane	13	U	100	13
76-13-1	1,1,2-Trichlorotrifluoroethane	41	U	100	41
75-34-3	1,1-Dichloroethane	17	U	100	17
75-35-4	1,1-Dichloroethene	19	U	100	19
563-58-6	1,1-Dichloropropene	14	U	100	14
87-61-6	1,2,3-Trichlorobenzene	54	U	100	54
96-18-4	1,2,3-Trichloropropane	24	U	100	24
526-73-8	1,2,3-Trimethylbenzene	14	U	500	14
120-82-1	1,2,4-Trichlorobenzene	26	U	100	26
95-63-6	1,2,4-Trimethylbenzene	7.0	U	100	7.0
96-12-8	1,2-Dibromo-3-Chloropropane	91	U	200	91
95-50-1	1,2-Dichlorobenzene	15	U	100	15
107-06-2	1,2-Dichloroethane	21	U	100	21
78-87-5	1,2-Dichloropropane	15	U	100	15
541-73-1	1,3-Dichlorobenzene	15	U	100	15
142-28-9	1,3-Dichloropropane	21	U	100	21
106-46-7	1,4-Dichlorobenzene	16	U	100	16
594-20-7	2,2-Dichloropropane	31	U	100	31
78-93-3	2-Butanone (MEK)	120	U	1000	120
110-75-8	2-Chloroethyl vinyl ether	26	U	1000	26
95-49-8	2-Chlorotoluene	15	U	100	15
591-78-6	2-Hexanone	54	U	1000	54
106-43-4	4-Chlorotoluene	9.0	U	100	9.0
99-87-6	4-Isopropyltoluene	13	U	100	13
108-10-1	4-Methyl-2-pentanone (MIBK)	42	U	1000	42
67-64-1	Acetone	540	U	1000	540
71-43-2	Benzene	13	U	100	13
108-86-1	Bromobenzene	12	U	100	12
75-25-2	Bromoform	76	U	100	76
74-83-9	Bromomethane	42	U	100	42
75-15-0	Carbon disulfide	28	U	100	28
56-23-5	Carbon tetrachloride	26	U	100	26
108-90-7	Chlorobenzene	14	U	100	14
124-48-1	Chlorodibromomethane	39	U	100	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: U1900392.d

Analysis Method: 8260C | Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	83	U	100	83
67-66-3	Chloroform	13	U	100	13
74-87-3	Chloromethane	20	U	100	20
156-59-2	cis-1,2-Dichloroethene	3700		100	16
10061-01-5	cis-1,3-Dichloropropene	61	U	100	61
74-95-3	Dibromomethane	9.0	U	100	9.0
74-97-5	Bromochloromethane	14	U	100	14
75-71-8	Dichlorodifluoromethane	35	U	100	35
75-27-4	Bromodichloromethane	17	U	100	17
75-65-0	tert-Butyl alcohol	170	U *	5000	170
100-41-4	Ethylbenzene	11	U	100	11
87-68-3	Hexachlorobutadiene	83	U	100	83
108-20-3	Diisopropyl ether	17	U	1000	17
98-82-8	Isopropylbenzene	9.0	U	100	9.0
1634-04-4	Methyl tert-butyl ether	7.0	U	100	7.0
75-09-2	Methylene Chloride	260	U	500	260
179601-23-1	m-Xylene & p-Xylene	8.0	U	200	8.0
91-20-3	Naphthalene	32	U	100	32
104-51-8	n-Butylbenzene	14	U	100	14
103-65-1	N-Propylbenzene	15	U	100	15
95-47-6	o-Xylene	9.0	U	100	9.0
135-98-8	sec-Butylbenzene	13	U	100	13
100-42-5	Styrene	10	U	100	10
994-05-8	Tert-amyl methyl ether	11	U	500	11
637-92-3	Ethyl tert-butyl ether	15	U	500	15
127-18-4	Tetrachloroethene	15	U	100	15
108-88-3	Toluene	14	U	100	14
156-60-5	trans-1,2-Dichloroethene	19	J	100	19
10061-02-6	trans-1,3-Dichloropropene	67	U	100	67
79-01-6	Trichloroethene	4300		100	10
75-69-4	Trichlorofluoromethane	45	U	100	45
108-05-4	Vinyl acetate	19	U	200	19
75-01-4	Vinyl chloride	100		100	20
1330-20-7	Xylenes, Total	15	U	200	15
98-06-6	tert-Butylbenzene	14	U	100	14
106-93-4	1,2-Dibromoethane	12	U	100	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Matrix: Water Lab File ID: U1900392.d

Analysis Method: 8260C Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 01:38

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		73-120
1868-53-7	Dibromofluoromethane (Surr)	112		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Matrix: Water Lab File ID: U1900392.d

Analysis Method: 8260C Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 01:38

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: U1900392.d

Analysis Method: 8260C | Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 01:38

Soil Aliquot Vol: | Dilution Factor: 100

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		100	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062718 | Lab Sample ID: 240-97836-1

Matrix: Water | Lab File ID: U1900363.d

Analysis Method: 8260C | Date Collected: 06/27/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062718 | Lab Sample ID: 240-97836-1

Matrix: Water | Lab File ID: U1900363.d

Analysis Method: 8260C | Date Collected: 06/27/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	17	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062718 Lab Sample ID: 240-97836-1

Matrix: Water Lab File ID: U1900363.d

Analysis Method: 8260C Date Collected: 06/27/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 01:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	112		69-124
460-00-4	4-Bromofluorobenzene (Surr)	95		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062718 | Lab Sample ID: 240-97836-1

Matrix: Water | Lab File ID: U1900363.d

Analysis Method: 8260C | Date Collected: 06/27/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 01:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062718 Lab Sample ID: 240-97836-1

Matrix: Water Lab File ID: U1900363.d

Analysis Method: 8260C Date Collected: 06/27/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 01:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062818 | Lab Sample ID: 240-97912-1

Matrix: Water | Lab File ID: UXM12510.D

Analysis Method: 8260C | Date Collected: 06/28/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062818 | Lab Sample ID: 240-97912-1

Matrix: Water | Lab File ID: UXM12510.D

Analysis Method: 8260C | Date Collected: 06/28/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.45	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	14	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062818 | Lab Sample ID: 240-97912-1

Matrix: Water | Lab File ID: UXM12510.D

Analysis Method: 8260C | Date Collected: 06/28/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062818 | Lab Sample ID: 240-97912-1

Matrix: Water | Lab File ID: UXM12510.D

Analysis Method: 8260C | Date Collected: 06/28/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062818 | Lab Sample ID: 240-97912-1

Matrix: Water | Lab File ID: UXM12510.D

Analysis Method: 8260C | Date Collected: 06/28/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062918 | Lab Sample ID: 240-97969-1

Matrix: Water | Lab File ID: UXM12605.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	6.8	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.75	J	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	15		10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062918 | Lab Sample ID: 240-97969-1

Matrix: Water | Lab File ID: UXM12605.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	15	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062918 Lab Sample ID: 240-97969-1

Matrix: Water Lab File ID: UXM12605.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 15:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062918 | Lab Sample ID: 240-97969-1

Matrix: Water | Lab File ID: UXM12605.D

Analysis Method: 8260C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 15:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
630-19-3	Propanal, 2,2-dimethyl-	4.68	2.8	T J N	53%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: TB-062918 Lab Sample ID: 240-97969-1

Matrix: Water Lab File ID: UXM12605.D

Analysis Method: 8260C Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 15:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 | Lab Sample ID: 240-97969-7

Matrix: Water | Lab File ID: 80710028.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 20:47

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	12		1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	63		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	55		35-120
367-12-4	2-Fluorophenol (Surr)	53		17-120
321-60-8	2-Fluorobiphenyl (Surr)	51		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	67		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 | Lab Sample ID: 240-97969-6

Matrix: Water | Lab File ID: 80710027.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 260(mL) | Date Analyzed: 07/10/2018 20:22

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	31		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	60		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	79		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 | Lab Sample ID: 240-97969-5

Matrix: Water | Lab File ID: 80710026.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 19:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	16		1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		28-128
4165-62-2	Phenol-d5 (Surr)	46		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	65		17-120
321-60-8	2-Fluorobiphenyl (Surr)	64		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 | Lab Sample ID: 240-97912-7

Matrix: Water | Lab File ID: 80710019.D

Analysis Method: 8270D | Date Collected: 06/28/2018 13:20

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 17:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		28-128
4165-62-2	Phenol-d5 (Surr)	58		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	67		17-120
321-60-8	2-Fluorobiphenyl (Surr)	51		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 | Lab Sample ID: 240-97912-6

Matrix: Water | Lab File ID: 80710018.D

Analysis Method: 8270D | Date Collected: 06/28/2018 11:40

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 16:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	30		1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		28-128
4165-62-2	Phenol-d5 (Surr)	47		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
367-12-4	2-Fluorophenol (Surr)	60		17-120
321-60-8	2-Fluorobiphenyl (Surr)	45		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	74		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 | Lab Sample ID: 240-97912-5

Matrix: Water | Lab File ID: 80710017.D

Analysis Method: 8270D | Date Collected: 06/28/2018 10:35

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 260(mL) | Date Analyzed: 07/10/2018 16:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.6		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	56		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		35-120
367-12-4	2-Fluorophenol (Surr)	78		17-120
321-60-8	2-Fluorobiphenyl (Surr)	55		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	83		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 | Lab Sample ID: 240-97836-7

Matrix: Water | Lab File ID: 80703018.D

Analysis Method: 8270D | Date Collected: 06/27/2018 12:40

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 230(mL) | Date Analyzed: 07/03/2018 14:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	23		1.1	0.42

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	70		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	36		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 | Lab Sample ID: 240-97836-6

Matrix: Water | Lab File ID: 80705022.D

Analysis Method: 8270D | Date Collected: 06/27/2018 11:00

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 250(mL) | Date Analyzed: 07/05/2018 15:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 5

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334754 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	110		5.0	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	123		28-128
4165-62-2	Phenol-d5 (Surr)	81		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	96		35-120
367-12-4	2-Fluorophenol (Surr)	92		17-120
321-60-8	2-Fluorobiphenyl (Surr)	104		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	87		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: 80703016.D

Analysis Method: 8270D | Date Collected: 06/27/2018 09:40

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 260(mL) | Date Analyzed: 07/03/2018 13:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	23		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	66		35-120
367-12-4	2-Fluorophenol (Surr)	70		17-120
321-60-8	2-Fluorobiphenyl (Surr)	66		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	57		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 | Lab Sample ID: 240-97969-2

Matrix: Water | Lab File ID: 80710023.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 280(mL) | Date Analyzed: 07/10/2018 18:43

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	19		0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	44		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	58		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 | Lab Sample ID: 240-97969-3

Matrix: Water | Lab File ID: 80711012.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 270(mL) | Date Analyzed: 07/11/2018 10:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 2

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	42		1.9	0.71

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	58		17-120
321-60-8	2-Fluorobiphenyl (Surr)	59		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	76		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: 80710025.D

Analysis Method: 8270D | Date Collected: 06/29/2018 00:00

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 270(mL) | Date Analyzed: 07/10/2018 19:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.1		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		28-128
4165-62-2	Phenol-d5 (Surr)	64		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-120
367-12-4	2-Fluorophenol (Surr)	69		17-120
321-60-8	2-Fluorobiphenyl (Surr)	68		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	80		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: 80709024.D

Analysis Method: 8270D | Date Collected: 06/28/2018 09:57

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 260(mL) | Date Analyzed: 07/09/2018 17:41

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335188 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	26		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	56		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	83		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 | Lab Sample ID: 240-97912-3

Matrix: Water | Lab File ID: 80709025.D

Analysis Method: 8270D | Date Collected: 06/28/2018 11:30

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 260(mL) | Date Analyzed: 07/09/2018 18:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335188 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	26		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		28-128
4165-62-2	Phenol-d5 (Surr)	36		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	47		35-120
367-12-4	2-Fluorophenol (Surr)	47		17-120
321-60-8	2-Fluorobiphenyl (Surr)	40		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: 80710016.D

Analysis Method: 8270D | Date Collected: 06/28/2018 14:05

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 270(mL) | Date Analyzed: 07/10/2018 15:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	14		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		28-128
4165-62-2	Phenol-d5 (Surr)	61		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	63		17-120
321-60-8	2-Fluorobiphenyl (Surr)	51		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 | Lab Sample ID: 240-97836-2

Matrix: Water | Lab File ID: 80703013.D

Analysis Method: 8270D | Date Collected: 06/27/2018 09:55

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 280(mL) | Date Analyzed: 07/03/2018 12:42

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.92		0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	65		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 | Lab Sample ID: 240-97836-3

Matrix: Water | Lab File ID: 80703014.D

Analysis Method: 8270D | Date Collected: 06/27/2018 11:17

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 270(mL) | Date Analyzed: 07/03/2018 13:07

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.5		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		28-128
4165-62-2	Phenol-d5 (Surr)	43		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	55		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	29	X	33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: 80703015.D

Analysis Method: 8270D | Date Collected: 06/27/2018 13:50

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 260(mL) | Date Analyzed: 07/03/2018 13:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	25		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	57		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	80		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	49		33-120

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Matrix: Water Lab File ID: Z0071216.D

Analysis Method: RSK-175 Date Collected: 06/29/2018 00:00

Sample wt/vol: 23(mL) Date Analyzed: 07/12/2018 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	220		1.0	0.17
74-84-0	Ethane	8.0		1.0	0.10
74-85-1	Ethylene	59		1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	120		60-140

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 | Lab Sample ID: 240-97969-3

Matrix: Water | Lab File ID: Z0071217.D

Analysis Method: RSK-175 | Date Collected: 06/29/2018 00:00

Sample wt/vol: 23(mL) | Date Analyzed: 07/12/2018 18:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335947 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	2300		1.0	0.17
74-84-0	Ethane	260		1.0	0.10
74-85-1	Ethylene	1900		1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	116		60-140

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: Z0071218.D

Analysis Method: RSK-175 | Date Collected: 06/29/2018 00:00

Sample wt/vol: 23(mL) | Date Analyzed: 07/12/2018 18:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335947 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	87		1.0	0.17
74-84-0	Ethane	14		1.0	0.10
74-85-1	Ethylene	150		1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	116		60-140

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 | Lab Sample ID: 240-97969-5

Matrix: Water | Lab File ID: R070913.D

Analysis Method: 8015C | Date Collected: 06/29/2018 00:00

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 240(mL) | Date Analyzed: 07/09/2018 19:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	360	J	520	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 | Lab Sample ID: 240-97912-5

Matrix: Water | Lab File ID: R070911.D

Analysis Method: 8015C | Date Collected: 06/28/2018 10:35

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 250(mL) | Date Analyzed: 07/09/2018 18:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	590		500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: R070511.D

Analysis Method: 8015C | Date Collected: 06/27/2018 09:40

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 270(mL) | Date Analyzed: 07/05/2018 22:40

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1200		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	88		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: R070912.D

Analysis Method: 8015C | Date Collected: 06/29/2018 00:00

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 260(mL) | Date Analyzed: 07/09/2018 18:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	360	J	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: R070910.D

Analysis Method: 8015C | Date Collected: 06/28/2018 14:05

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 260(mL) | Date Analyzed: 07/09/2018 18:03

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	330	J	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	93		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: R070510.D

Analysis Method: 8015C | Date Collected: 06/27/2018 13:50

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 260(mL) | Date Analyzed: 07/05/2018 22:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	440	J	480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	73		37-130

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4S-062918 | Lab Sample ID: 240-97969-5

Matrix: Water | Lab File ID: A0070310.D

Analysis Method: 8015C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 15:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	520		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	85		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 | Lab Sample ID: 240-97912-5

Matrix: Water | Lab File ID: A0070308.D

Analysis Method: 8015C | Date Collected: 06/28/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 13:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 | Lab Sample ID: 240-97836-5

Matrix: Water | Lab File ID: A0062918.D

Analysis Method: 8015C | Date Collected: 06/27/2018 09:40

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 22:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 | Lab Sample ID: 240-97969-4

Matrix: Water | Lab File ID: A0070309.D

Analysis Method: 8015C | Date Collected: 06/29/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 14:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	84		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: A0070307.D

Analysis Method: 8015C | Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 13:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	480		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: A0062917.D

Analysis Method: 8015C | Date Collected: 06/27/2018 13:50

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 22:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	2.0	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.9	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Cadmium	10	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	130	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	48	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	220	100	47	ug/L			1	6020A
7439-96-5	Manganese	3300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.59	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	18	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	4.0	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Dissolved Cadmium	11	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	130	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	50	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	J		1	6020A
7439-96-5	Dissolved Manganese	3400	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	110	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.46	1.0	0.45	ug/L	J	B	1	6020A
7782-49-2	Dissolved Selenium	18	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.57	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.6	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Cadmium	16	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	3.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	80	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	25000	100	47	ug/L			1	6020A
7439-96-5	Manganese	4700	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	92	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.3	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	8.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	7.1	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.9	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Dissolved Cadmium	16	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	3.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	54	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	24000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	4700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	90	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.1	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	7.8	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	6.3	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	9.4	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.79	1.0	0.31	ug/L	J	B	1	6020A
7440-43-9	Cadmium	3.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	40	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	20000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	14	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.2	1.0	0.45	ug/L		B	1	6020A
7782-49-2	Selenium	2.7	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.1	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-4S-062918 Lab Sample ID: 240-97969-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	9.3	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.54	1.0	0.31	ug/L	J	B	1	6020A
7440-43-9	Dissolved Cadmium	2.1	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	40	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	18000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3300	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	14	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.46	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	2.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 13:20

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 13:20

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.9	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	37	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	9.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	8500	100	47	ug/L			1	6020A
7439-96-5	Manganese	22	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 13:20

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	4.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	41	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	10	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	9200	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	24	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-46I-062818 Lab Sample ID: 240-97912-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:40

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-46I-062818 Lab Sample ID: 240-97912-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:40

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.58	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.64	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	190	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	10000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	94	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	7.3	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-46I-062818 Lab Sample ID: 240-97912-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:40

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	25	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.53	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.53	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	9800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1300	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	88	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	6.6	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 10:35

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 10:35

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	3.4	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	6.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	6400	100	47	ug/L			1	6020A
7439-96-5	Manganese	710	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	3.7	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.94	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 10:35

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	2.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	6.1	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	3.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	5800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	3.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.3	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-47D-062718 Lab Sample ID: 240-97836-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 12:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-47D-062718 Lab Sample ID: 240-97836-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 12:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	4.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	25	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	8800	100	47	ug/L			1	6020A
7439-96-5	Manganese	390	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	14	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	11	1.0	0.053	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-47D-062718 Lab Sample ID: 240-97836-7

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 12:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	3.8	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	23	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	8200	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	360	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.30	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-47I-062718 Lab Sample ID: 240-97836-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:00

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.66	0.20	0.13	ug/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-47I-062718 Lab Sample ID: 240-97836-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:00

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	7.2	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	28	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	79	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	81	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.8	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	50	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Iron	5000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	33	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	20	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	1.6	1.0	0.053	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-47I-062718 Lab Sample ID: 240-97836-6

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:00

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	4.6	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	25	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.76	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	18	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	79	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.2	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	12	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Dissolved Iron	3700	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3400	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	32	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	9.1	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.29	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-47S-062718 Lab Sample ID: 240-97836-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-47S-062718 Lab Sample ID: 240-97836-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	9.9	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	35	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	7.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	7800	100	47	ug/L			1	6020A
7439-96-5	Manganese	3900	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	3.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-47S-062718 Lab Sample ID: 240-97836-5

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:40

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	9.4	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	34	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	8.1	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	7500	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3800	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	3.3	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.99	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	36000	5000	310	ug/L			1	6010C
7440-09-7	Potassium	3700	5000	560	ug/L	J		1	6010C
7439-95-4	Magnesium	22000	5000	780	ug/L			1	6010C
7440-23-5	Sodium	56000	5000	560	ug/L			1	6010C
14808-60-7	SiO2, Silica	8800	1100	180	ug/L			1	6010C
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.5	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Cadmium	36	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	180	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	20	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	3100	5.0	2.1	ug/L		F1	1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	77	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	9.0	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.073	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	23	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.8	1.0	0.31	ug/L		B	1	6020A
7440-43-9	Dissolved Cadmium	35	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	170	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	19	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	2900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	73	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	8.9	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	5000	310	ug/L			1	6010C
7440-09-7	Potassium	9900	5000	560	ug/L			1	6010C
7439-95-4	Magnesium	46000	5000	780	ug/L			1	6010C
7440-23-5	Sodium	88000	5000	560	ug/L			1	6010C
14808-60-7	SiO2, Silica	10000	1100	180	ug/L			1	6010C
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	8.6	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	28	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.46	1.0	0.31	ug/L	J	B	1	6020A
7440-43-9	Cadmium	32	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	120	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	8000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3300	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	31	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	3.4	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	1.4	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.17	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	8.4	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	29	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	16	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	150	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Dissolved Iron	8700	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	36	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.0	1.0	0.45	ug/L		B	1	6020A
7782-49-2	Dissolved Selenium	2.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.93	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	280000	5000	310	ug/L			1	6010C
7440-09-7	Potassium	15000	5000	560	ug/L			1	6010C
7439-95-4	Magnesium	36000	5000	780	ug/L			1	6010C
7440-23-5	Sodium	25000	5000	560	ug/L			1	6010C
14808-60-7	SiO2, Silica	33000	1100	180	ug/L			1	6010C
7440-36-0	Antimony	2.5	2.0	0.57	ug/L			1	6020A
7440-38-2	Arsenic	0.76	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	36	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.52	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	0.34	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.99	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	5.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	6.7	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.7	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	2.7	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	2.3	2.0	0.57	ug/L			1	6020A
7440-38-2	Dissolved Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	36	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.62	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	0.40	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	1.0	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	12	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	7.5	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.8	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	2.9	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49D-062818 Lab Sample ID: 240-97912-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 09:57

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49D-062818 Lab Sample ID: 240-97912-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 09:57

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	7.6	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	20	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	200	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	4.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	94	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	9000	100	47	ug/L			1	6020A
7439-96-5	Manganese	6600	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	97	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.5	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	30	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.38	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	9.3	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	1.1	1.0	0.053	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49D-062818 Lab Sample ID: 240-97912-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 09:57

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U	L	1	6020A
7440-39-3	Dissolved Barium	15	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	7.7	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	19	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	200	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4.8	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	97	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	8800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6700	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	94	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	1.4	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	30	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.36	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	9.2	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.68	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:30

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:30

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	6.8	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	23	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	110	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	6.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	75	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	35000	100	47	ug/L			1	6020A
7439-96-5	Manganese	6200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	71	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.85	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	28	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.25	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	4.7	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	1.7	1.0	0.053	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 11:30

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	15	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	6.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	24	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	120	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	77	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	37000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6600	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	77	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.73	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	30	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.25	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	3.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 14:05

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 14:05

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	21	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Cadmium	0.46	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	74	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	3.1	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	32000	100	47	ug/L			1	6020A
7439-96-5	Manganese	4500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	22	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.9	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/28/2018 14:05

Reporting Basis: WET Date Received: 06/29/2018 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	22	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.48	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	81	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	35000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	5000	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	24	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	2.0	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:55

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:55

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.66	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	1.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	5.6	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.50	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.8	2.0	1.7	ug/L	J	B	1	6020A
7439-89-6	Iron	200	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.31	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:55

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	5.5	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.35	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	170	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.092	1.0	0.053	ug/L	J		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51I-062718 Lab Sample ID: 240-97836-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:17

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51I-062718 Lab Sample ID: 240-97836-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:17

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.77	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	2.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	1.2	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	79	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	3.6	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Iron	51000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3900	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	30	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	14	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.21	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Vanadium	4.4	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51I-062718 Lab Sample ID: 240-97836-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 11:17

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	1.1	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	80	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	5.8	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	2.6	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Dissolved Iron	52000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	31	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	14	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	J		1	6020A
7440-62-2	Dissolved Vanadium	4.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 13:50

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 13:50

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	17	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.84	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	1.4	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	28	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	4.7	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Iron	7400	100	47	ug/L			1	6020A
7439-96-5	Manganese	3600	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	23	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	6.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.32	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 13:50

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	19	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.1	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	1.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	32	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.3	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	6.6	2.0	1.7	ug/L		B	1	6020A
7439-89-6	Dissolved Iron	9100	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	4100	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	27	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	7.4	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Matrix: Water Lab File ID: Perc_07062018A_031.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 02:05

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	2.3		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4I-062918 Lab Sample ID: 240-97969-6

Matrix: Water Lab File ID: Perc_07062018A_028.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 01:25

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.13	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46D-062818 Lab Sample ID: 240-97912-7

Matrix: Water Lab File ID: Perc_07062018A_070.d

Analysis Method: 6850 Date Collected: 06/28/2018 13:20

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 10:45

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46I-062818 Lab Sample ID: 240-97912-6

Matrix: Water Lab File ID: Perc_07062018A_069.d

Analysis Method: 6850 Date Collected: 06/28/2018 11:40

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 10:31

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-46S-062818 Lab Sample ID: 240-97912-5

Matrix: Water Lab File ID: Perc_07062018A_068.d

Analysis Method: 6850 Date Collected: 06/28/2018 10:35

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 10:18

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47D-062718 | Lab Sample ID: 240-97836-7

Matrix: Water | Lab File ID: Perc_07062018A_062.d

Analysis Method: 6850 | Date Collected: 06/27/2018 12:40

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 08:58

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47I-062718 | Lab Sample ID: 240-97836-6

Matrix: Water | Lab File ID: Perc_07062018A_060.d

Analysis Method: 6850 | Date Collected: 06/27/2018 11:00

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 08:31

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-47S-062718 Lab Sample ID: 240-97836-5

Matrix: Water Lab File ID: Perc_07062018A_059.d

Analysis Method: 6850 Date Collected: 06/27/2018 09:40

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 08:18

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Matrix: Water Lab File ID: Perc_07062018A_025.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 00:45

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Matrix: Water Lab File ID: Perc_07062018A_026.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 00:59

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Matrix: Water Lab File ID: Perc_07062018A_027.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 01:12

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 | Lab Sample ID: 240-97912-2

Matrix: Water | Lab File ID: Perc_07062018A_063.d

Analysis Method: 6850 | Date Collected: 06/28/2018 09:57

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 09:11

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	1.5		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49I-062818 Lab Sample ID: 240-97912-3

Matrix: Water Lab File ID: Perc_07062018A_064.d

Analysis Method: 6850 Date Collected: 06/28/2018 11:30

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 09:25

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	1.6		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 Lab Sample ID: 240-97912-4

Matrix: Water Lab File ID: Perc_07062018A_065.d

Analysis Method: 6850 Date Collected: 06/28/2018 14:05

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 09:38

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Matrix: Water Lab File ID: Perc_07062018A_054.d

Analysis Method: 6850 Date Collected: 06/27/2018 09:55

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 07:12

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.16	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51I-062718 | Lab Sample ID: 240-97836-3

Matrix: Water | Lab File ID: Perc_07062018A_057.d

Analysis Method: 6850 | Date Collected: 06/27/2018 11:17

Extraction Method: Filtration | Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 07:52

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 Lab Sample ID: 240-97836-4

Matrix: Water Lab File ID: Perc_07062018A_058.d

Analysis Method: 6850 Date Collected: 06/27/2018 13:50

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 08:05

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.27	J	0.50	0.082

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.56	2.0	0.46	mg/L	J		1	4500 NH3 C-1997
	Alkalinity	8.0	5.0	2.6	mg/L		B	1	2320B-1997
16887-00-6	Chloride	74	1.0	0.28	mg/L			1	9056A
14797-65-0	Nitrite as N	0.037	0.10	0.014	mg/L	J		1	9056A
14797-55-8	Nitrate as N	1.2	0.10	0.014	mg/L			1	9056A
14808-79-8	Sulfate	270	5.0	1.7	mg/L			5	9056A
	Total Dissolved Solids	530	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48D-062918 Lab Sample ID: 240-97969-2

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	2.4	1.0	0.50	mg/L		B	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	2.8	2.0	0.46	mg/L			1	4500 NH3 C-1997
	Alkalinity	240	5.0	2.6	mg/L		B	1	2320B-1997
16887-00-6	Chloride	120	1.0	0.28	mg/L			1	9056A
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	9056A
14797-55-8	Nitrate as N	0.014	0.10	0.014	mg/L	U		1	9056A
14808-79-8	Sulfate	330	5.0	1.7	mg/L			5	9056A
	Total Dissolved Solids	930	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48I-062918 Lab Sample ID: 240-97969-3

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	8.3	1.0	0.50	mg/L		B	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7664-41-7	Ammonia	0.56	2.0	0.46	mg/L	J		1	4500 NH3 C-1997
	Alkalinity	530	5.0	2.6	mg/L		B	1	2320B-1997
16887-00-6	Chloride	29	1.0	0.28	mg/L			1	9056A
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	9056A
14797-55-8	Nitrate as N	0.75	0.10	0.014	mg/L			1	9056A
14808-79-8	Sulfate	360	5.0	1.7	mg/L			5	9056A
	Total Dissolved Solids	1100	10	7.8	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-48S-062918 Lab Sample ID: 240-97969-4

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/29/2018 00:00

Reporting Basis: WET Date Received: 06/30/2018 09:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	7.4	1.0	0.50	mg/L		B	1	9060A

APPENDIX C

SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-97836-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento laboratory. The 9060A Dissolved Organic Carbon analysis was performed at the TestAmerica Nashville laboratory.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 6/28/2018 9:30 AM, 6/29/2018 10:00 AM and 6/30/2018 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 1.4º C, 1.6º C, 2.4º C, 3.8º C, 4.2º C and 4.2º C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-062718 (240-97836-1), TB-062818 (240-97912-1), TB-062918 (240-97969-1), MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/03/2018, 07/04/2018, 07/09/2018, 07/12/2018 and 07/13/2018.

Samples MSA-MW-49D-062818 (240-97969-2)[166.67X], MSA-MW-48D-062918 (240-97969-2)[20X], MSA-MW-51D-062718 (240-97969-2)[50X], MSA-MW-49I-062818 (240-97969-3)[125X], MSA-MW-48I-062918 (240-97969-3)[250X], MSA-MW-51S-062718 (240-97969-4)[100X], MSA-MW-49S-062818 (240-97969-4)[20X], MSA-MW-48S-062918 (240-97969-4)[4X], MSA-MW-47S-062718 (240-97969-5)[2.5X], DMW-4S-062918 (240-97969-5)[25X], DMW-4I-062918 (240-97969-6)[100X], MSA-MW-46I-062818 (240-97969-6)[20X], MSA-MW-47I-062718 (240-97969-6)[25X], MSA-MW-47D-062718 (240-97969-7)[40X] and DMW-4D-062918 (240-97969-7)[50X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) analyzed in batch 240-334440 was outside the method criteria for multiple analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-334645 was outside the method criteria for multiple analytes. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-334715 was outside the method criteria for multiple compounds. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the

reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-335235 was outside the method criteria for the following analyte(s): Carbon disulfide and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 240-335864 was outside the method criteria for the following analyte(s): n-Butylbenzene, Dichlorodi fluoromethane and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-062918 (240-97969-1), MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3), DMW-4S-062918 (240-97969-5), DMW-4I-062918 (240-97969-6), DMW-4D-062918 (240-97969-7) and (CCVIS 240-335864/4)

The continuing calibration verification (CCV) analyzed in batch 240-336057 was outside the method criteria for the following analyte(s): n-Butylbenzene and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MSA-MW-48S-062918 (240-97969-4) and (CCVIS 240-336057/4)

The following samples were received preserved with hydrochloric acid: TB-062718 (240-97836-1), TB-062818 (240-97912-1), TB-062918 (240-97969-1), MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

The laboratory control sample (LCS) for analytical batch 240-334645 recovered outside control limits for 2-methyl-2-propanol. This analyte has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The results have been reported and qualified.

The laboratory control sample (LCS) for analytical batch 240-334715 recovered outside control limits for 2-methyl-2-propanol. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Hexachlorobutadiene. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following samples are impacted: TB-062818 (240-97912-1), MSA-MW-49D-062818 (240-97912-2), MSA-MW-49I-062818 (240-97912-3), MSA-MW-49S-062818 (240-97912-4), MSA-MW-46S-062818 (240-97912-5), MSA-MW-46I-062818 (240-97912-6) and MSA-MW-46D-062818 (240-97912-7).

The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Hexachlorobutadiene. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following samples are impacted: TB-062918 (240-97969-1), MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3), DMW-4S-062918 (240-97969-5), DMW-4I-062918 (240-97969-6) and DMW-4D-062918 (240-97969-7).

The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Hexachlorobutadiene. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following sample is impacted: MSA-MW-48S-062918 (240-97969-4).

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 06/29/2018 and 07/05/2018 and analyzed on 07/03/2018, 07/05/2018, 07/09/2018, 07/10/2018 and 07/11/2018.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for MSA-MW-51I-062718 (240-97836-3).

Samples MSA-MW-48I-062918 (240-97969-3)[2X] and MSA-MW-47I-062718 (240-97969-6)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MSA-MW-51I-062718 (240-97836-3). These results have been reported and qualified.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-334070 and 240-334783.

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

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5) and DMW-4S-062918 (240-97969-5) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 06/29/2018 and 07/03/2018.

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

DISSOLVED GASES

Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 07/12/2018.

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

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5) and DMW-4S-062918 (240-97969-5) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 07/02/2018 and 07/05/2018 and analyzed on 07/05/2018 and 07/09/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batches 240-334451 and 240-334809.

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

PERCHLORATE

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 07/02/2018 and 07/05/2018 and analyzed on 07/11/2018.

The following samples MSA-MW-51S-062718 (240-97836-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-49S-062818 (240-97912-4), MSA-MW-46S-062818 (240-97912-5) and MSA-MW-46D-062818 (240-97912-7) in preparation batch 320-232133 were observed to have some orange residue on the bottom of the sample containers.

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

TOTAL RECOVERABLE METALS (ICP)

Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/02/2018 and analyzed on 07/06/2018.

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

DISSOLVED METALS (ICPMS)

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 06/29/2018 and 07/02/2018 and analyzed on 07/02/2018, 07/04/2018, 07/14/2018 and 07/16/2018.

Dissolved Copper was detected in method blank MB 240-334114/1-A at levels exceeding the reporting limit. If the associated sample

reported a result above the MDL and/or RL, the result has been flagged.

Dissolved Beryllium and Dissolved Lead were detected in method blank MB 240-334389/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 06/29/2018 and 07/02/2018 and analyzed on 07/02/2018, 07/04/2018 and 07/14/2018.

Copper was detected in method blank MB 240-334114/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Beryllium and Lead were detected in method blank MB 240-334389/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/29/2018 and 07/02/2018 and analyzed on 07/02/2018 and 07/03/2018.

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

TOTAL MERCURY

Samples MSA-MW-51D-062718 (240-97836-2), MSA-MW-49D-062818 (240-97912-2), MSA-MW-48D-062918 (240-97969-2), MSA-MW-51I-062718 (240-97836-3), MSA-MW-49I-062818 (240-97912-3), MSA-MW-48I-062918 (240-97969-3), MSA-MW-51S-062718 (240-97836-4), MSA-MW-49S-062818 (240-97912-4), MSA-MW-48S-062918 (240-97969-4), MSA-MW-47S-062718 (240-97836-5), MSA-MW-46S-062818 (240-97912-5), DMW-4S-062918 (240-97969-5), MSA-MW-47I-062718 (240-97836-6), MSA-MW-46I-062818 (240-97912-6), DMW-4I-062918 (240-97969-6), MSA-MW-47D-062718 (240-97836-7), MSA-MW-46D-062818 (240-97912-7) and DMW-4D-062918 (240-97969-7) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 06/29/2018 and 07/02/2018 and analyzed on 07/02/2018 and 07/03/2018.

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

ALKALINITY

Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/12/2018.

Alkalinity was detected in method blank MB 240-335871/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

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

TOTAL DISSOLVED SOLIDS

Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/05/2018.

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

ANIONS

Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for anions in accordance with EPA SW-846 Method 9056A. The samples were analyzed on 06/30/2018.

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

ANIONS
Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for anions in accordance with EPA SW-846 Method 9056A. The samples were analyzed on 06/30/2018 and 07/07/2018.

Samples MSA-MW-48D-062918 (240-97969-2)[5X], MSA-MW-48I-062918 (240-97969-3)[5X] and MSA-MW-48S-062918 (240-97969-4) [5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISOLVED ORGANIC CARBON
Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for disolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 07/13/2018.

Dissolved Organic Carbon was detected in method blank MB 490-529167/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

The method blank for analytical batch 490-529167 contained Dissolved Organic Carbon above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

AMMONIA TITRATION
Samples MSA-MW-48D-062918 (240-97969-2), MSA-MW-48I-062918 (240-97969-3) and MSA-MW-48S-062918 (240-97969-4) were analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The samples were prepared and analyzed on 07/13/2018.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97836-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
9060A	Organic Carbon, Dissolved (DOC)	SW846	TAL NSH
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
4500 NH3 B-1997	Ammonia, Distillation	SM	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
7470A	Preparation, Mercury	SW846	TAL CAN
Filtration	Sample Filtration	None	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-97836-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-97836-1	TB-062718	Water	06/27/18 00:00	06/28/18 09:30
240-97836-2	MSA-MW-51D-062718	Water	06/27/18 09:55	06/28/18 09:30
240-97836-3	MSA-MW-51I-062718	Water	06/27/18 11:17	06/28/18 09:30
240-97836-4	MSA-MW-51S-062718	Water	06/27/18 13:50	06/28/18 09:30
240-97836-5	MSA-MW-47S-062718	Water	06/27/18 09:40	06/28/18 09:30
240-97836-6	MSA-MW-47I-062718	Water	06/27/18 11:00	06/28/18 09:30
240-97836-7	MSA-MW-47D-062718	Water	06/27/18 12:40	06/28/18 09:30
240-97912-1	TB-062818	Water	06/28/18 00:00	06/29/18 10:00
240-97912-2	MSA-MW-49D-062818	Water	06/28/18 09:57	06/29/18 10:00
240-97912-3	MSA-MW-49I-062818	Water	06/28/18 11:30	06/29/18 10:00
240-97912-4	MSA-MW-49S-062818	Water	06/28/18 14:05	06/29/18 10:00
240-97912-5	MSA-MW-46S-062818	Water	06/28/18 10:35	06/29/18 10:00
240-97912-6	MSA-MW-46I-062818	Water	06/28/18 11:40	06/29/18 10:00
240-97912-7	MSA-MW-46D-062818	Water	06/28/18 13:20	06/29/18 10:00
240-97969-1	TB-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-2	MSA-MW-48D-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-3	MSA-MW-48I-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-4	MSA-MW-48S-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-5	DMW-4S-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-6	DMW-4I-062918	Water	06/29/18 00:00	06/30/18 09:50
240-97969-7	DMW-4D-062918	Water	06/29/18 00:00	06/30/18 09:50

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

4.2/C4.2
1,6/C1.6

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payne	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.		Analysis Requested		Job #: 180325
Address: 20251 Century Blvd Suite 200	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			Other:
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015630~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Gas (8015C)	Deo (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	240-97836 Chain of Custody	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A									
TB-062718	6/27/18	—	G	Water			2	-	-	-	-	-	-			
MSA-MW-51D-062718		0955					3	-	-	2	1	1	1			
MSA-MW-51I-062718		1117					3	-	-	2	1	1	1			
MSA-MW-51S-062718		1350					3	2	2	2	1	1	1			
MSA-MW-47S-062718		0940					3	2	2	2	1	1	1			
MSA-MW-47I-062718		1100					3	-	-	2	1	1	1			
MSA-MW-47D-062718		1240					3	-	-	2	1	1	1			

BALTIMORE

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Payne	6/27/18 1505	TT ENC		6/27/18 15:07	
Relinquished by:	Date/Time: 6/27/18	Company	Received by:	Date/Time: 6/28/18 930	Company THC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: [ ] Yes [ ] No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 97836**
Canton Facility

Client Tetra Tech Site Name _____ Cooler unpacked by: SA

Cooler Received on 6/28/18 Opened on 6/28/18

FedEx: 1st Grd (Exp) UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt [X] See Multiple Cooler Form
   IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF -0.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels be reconciled with the COC?	(Yes)	No
9. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
10. Sufficient quantity received to perform indicated analyses?	(Yes)	No
11. Are these work share samples?	Yes	(No)
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	(Yes)	No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # BS07601VB	(Yes)	No
16. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: JR

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # : 97836**
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	4.2	4.2	ICE
TA	8	~~4.8~~ 1.6	1.6	ICE

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-51D-062718	240-97836-G-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-51D-062718	240-97836-H-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-51I-062718	240-97836-G-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-51I-062718	240-97836-H-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-51S-062718	240-97836-K-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-51S-062718	240-97836-L-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-47S-062718	240-97836-K-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-47S-062718	240-97836-L-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-47I-062718	240-97836-G-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-47I-062718	240-97836-H-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-47D-062718	240-97836-G-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-47D-062718	240-97836-H-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

2.4/C2.4
1.4/C1.4

Chain of Custody Record

TestAmerica

BALTIMORE 180325

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015839~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Geo (9056C)	Dao (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-062818	6/28/18	—	G	Water			2	—	—	—	—	—	—		
MSA-MW-49D-062818		0957					3	—	—	2	1	1	1		
MSA-MW-49I-062818		1130					3	—	—	2	1	1	1		
MSA-MW-49S-062818		1405					3	2	2	2	1	1	1		
MSA-MW-46S-062818		1035					3	2	2	2	1	1	1		
MSA-MW-46I-062818		1140					3	—	—	2	1	1	1		
MSA-MW-46D-062818		1320					3	—	—	2	1	1	1		

240-97912 Chain of Custody

Possible Hazard Identification
Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Payon	6/28/18	TT INC		6/28/18	
2		6/28/18		BP	6/29-18 1000	TAL
3						

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # : 97912**
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 6-29-18 Opened on 6-29-18

Cooler unpacked by: BOP

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # NA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ~~NC~~ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF -0.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	~~Yes~~ No	
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No	NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No	
-Were tamper/custody seals intact and uncompromised?	Yes No	NA
3. Shippers' packing slip attached to the cooler(s)?	Yes No	
4. Did custody papers accompany the sample(s)?	Yes No	
5. Were the custody papers relinquished & signed in the appropriate place?	Yes No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No	
7. Did all bottles arrive in good condition (Unbroken)?	Yes No	
8. Could all bottle labels be reconciled with the COC?	Yes No	
9. Were correct bottle(s) used for the test(s) indicated?	Yes No	
10. Sufficient quantity received to perform indicated analyses?	Yes No	
11. Are these work share samples?	Yes No	
If yes, Questions 12-16 have been checked at the originating laboratory.		
12. Were all preserved sample(s) at the correct pH upon receipt?	Yes No	NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC?	Yes No	
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No	NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ~~0~~	Yes No	
16. Was a LL Hg or Me Hg trip blank present?	Yes ~~No~~	

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # :** 99912
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	2.4	2.4	Ice
		1.4	1.4	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-49D-062818	240-97912-G-2	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-49D-062818	240-97912-H-2	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-49I-062818	240-97912-G-3	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-49I-062818	240-97912-H-3	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-49S-062818	240-97912-I-4	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-49S-062818	240-97912-J-4	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-46S-062818	240-97912-I-5	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-46S-062818	240-97912-J-5	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-46I-062818	240-97912-G-6	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-46I-062818	240-97912-H-6	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____
MSA-MW-46D-062818	240-97912-G-7	Plastic 500ml - with Nitric Acid	<2	_____	_____
MSA-MW-46D-062818	240-97912-H-7	Plastic 500ml - w/ Nitric - Dis.	<2	_____	_____

4.2/C4.2
3.8/C3.8

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

180325 BALTIMORE

Client Information	Sampler: Walt Pacon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50816-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015630~~ 112IC04424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Gas (8015C)	Das (8015C)	1,4 Dioxane (8270D)	Total metals (6020A)	Diss metals (6020A)	Perchlorate (6850)	MBE (RSK-175)	Diss Doc (9060)	Alkalinity (2320B)	Total Select metals (6010C)	Ammonia (SM4500NH3	Nitrate, Nitrite, TDS, Sulfate (9056A)	Total Number of containers	Special Instructions/Note:
Preservation Code:							A														
TB-062918	6/29/18	-	G	Water			2	-	-	-	-	-	-	-	-	-	-	-	-		
MSA-MW-48D-062918							3	-	-	2	1	1	1	3	2	1	1	1	1		
MSA-MW-48I-062918							3	-	-	2	1	1	1	3	2	1	1	1	1		
MSA-MW-48S-062918							3	2	2	2	1	1	1	3	2	1	1	1	1		
DMW-4S-062918							3	2	2	2	1	1	-	-	-	-	-	-	-		
DMW-4I-062918							3	-	-	2	1	1	1	-	-	-	-	-	-		
DMW-4D-062918			4				3	-	-	2	1	1	1	-	-	-	-	-	-		

240-97969 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Walt Pacon	6/29/18 / 1410	TT INC		6/29/18 1410	
2		6/29/18			6/30-18 950	TAC
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 97969
Canton Facility

Client TETRA TECH Site Name —

Cooler Received on 6-30-18 Opened on 6-30-18

Cooler unpacked by: POP

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # TA Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-8 (CF +0 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #36 (CF -0.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   ~~IR GUN # 627 (CF -1.3°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C~~
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# **HC740840**
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # COVERED Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: POP

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____.

WI-NC-099

TestAmerica Multiple Cooler Receipt Form/Narrative **Login # : 97969**
Canton Facility

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
TA	8	4.2	4.2	ICE
↑	↑	3.8	3.8	↑

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
MSA-MW-48D-062918	240-97969-N-2	Plastic 500ml - with Sulfuric Acid	<2		
MSA-MW-48D-062918	240-97969-O-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48D-062918	240-97969-P-2	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48D-062918	240-97969-Q-2	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48I-062918	240-97969-N-3	Plastic 500ml - with Sulfuric Acid	<2		
MSA-MW-48I-062918	240-97969-O-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48I-062918	240-97969-P-3	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48I-062918	240-97969-Q-3	Plastic 500ml - w/ Nitric - Dis.	<2		
MSA-MW-48S-062918	240-97969-R-4	Plastic 500ml - with Sulfuric Acid	<2		
MSA-MW-48S-062918	240-97969-S-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48S-062918	240-97969-T-4	Plastic 500ml - with Nitric Acid	<2		
MSA-MW-48S-062918	240-97969-U-4	Plastic 500ml - w/ Nitric - Dis.	<2		
DMW-4S-062918	240-97969-J-5	Plastic 500ml - with Nitric Acid	<2		
DMW-4S-062918	240-97969-K-5	Plastic 500ml - w/ Nitric - Dis.	<2		
DMW-4I-062918	240-97969-G-6	Plastic 500ml - with Nitric Acid	<2		
DMW-4I-062918	240-97969-H-6	Plastic 500ml - w/ Nitric - Dis.	<2		
DMW-4D-062918	240-97969-G-7	Plastic 500ml - with Nitric Acid	<2		
DMW-4D-062918	240-97969-H-7	Plastic 500ml - w/ Nitric - Dis.	<2		

Method 8260C

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-062718	240-97836-1	112	107	104	95
MSA-MW-51D-062718	240-97836-2	105	105	104	96
MSA-MW-51I-062718	240-97836-3	105	103	101	92
MSA-MW-51S-062718	240-97836-4	112	108	106	95
MSA-MW-47S-062718	240-97836-5	100	100	99	92
MSA-MW-47I-062718	240-97836-6	106	105	103	94
MSA-MW-47D-062718	240-97836-7	106	102	100	90
TB-062818	240-97912-1	85	83	88	91
MSA-MW-49D-062818	240-97912-2	90	88	92	95
MSA-MW-49I-062818	240-97912-3	84	83	87	91
MSA-MW-49S-062818	240-97912-4	88	86	91	94
MSA-MW-46S-062818	240-97912-5	84	82	87	92
MSA-MW-46I-062818	240-97912-6	85	82	88	90
MSA-MW-46D-062818	240-97912-7	85	82	85	89
TB-062918	240-97969-1	83	80	85	88
MSA-MW-48D-062918	240-97969-2	83	80	84	90
MSA-MW-48I-062918	240-97969-3	85	82	88	89
MSA-MW-48S-062918	240-97969-4	87	86	90	94
DMW-4S-062918	240-97969-5	85	81	86	90
DMW-4I-062918	240-97969-6	84	82	86	89
DMW-4D-062918	240-97969-7	87	85	88	91
	MB 240-334440/7	108	107	103	96
	MB 240-334645/7	109	106	103	91
	MB 240-334715/7	103	101	101	89
	MB 240-335235/8	91	84	87	93
	MB 240-335864/9	83	84	87	91
	MB 240-336057/9	84	82	86	90
	LCS 240-334440/4	99	99	99	95
	LCS 240-334645/4	102	99	101	96
	LCS 240-334715/4	106	100	100	91
	LCS 240-335235/5	85	82	87	89
	LCS 240-335864/5	86	86	87	92
	LCS 240-336057/5	85	81	86	92

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: U1900341.d Lab Sample ID: MB 240-334440/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/02/2018 17:11

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334440/4	U1900338.d	07/02/2018 16:04
TB-062718	240-97836-1	U1900363.d	07/03/2018 01:22
MSA-MW-51D-062718	240-97836-2	U1900364.d	07/03/2018 01:44

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334440/7

Matrix: Water | Lab File ID: U1900341.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334440/7

Matrix: Water | Lab File ID: U1900341.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334440 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334440/7

Matrix: Water Lab File ID: U1900341.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	108		69-124
460-00-4	4-Bromofluorobenzene (Surr)	96		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334440/7

Matrix: Water Lab File ID: U1900341.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334440/7

Matrix: Water Lab File ID: U1900341.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2018 17:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334440 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900338.d

Lab ID: LCS 240-334440/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.0	95	73-136	
1,1,1-Trichloroethane	20.0	18.6	93	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.5	93	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	18.5	92	65-144	
1,1-Dichloroethane	20.0	18.5	92	74-120	
1,1-Dichloroethene	20.0	18.6	93	65-127	
1,1-Dichloropropene	20.0	18.4	92	80-122	
1,2,3-Trichlorobenzene	20.0	20.4	102	31-144	
1,2,3-Trichloropropane	20.0	18.7	94	53-134	
1,2,4-Trichlorobenzene	20.0	20.3	101	34-141	
1,2,4-Trimethylbenzene	20.0	19.2	96	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.9	90	50-130	
1,2-Dichlorobenzene	20.0	19.8	99	80-120	
1,2-Dichloroethane	20.0	18.3	92	68-133	
1,2-Dichloropropane	20.0	18.7	93	78-127	
1,3-Dichlorobenzene	20.0	19.5	97	80-120	
1,3-Dichloropropane	20.0	18.1	91	71-124	
1,4-Dichlorobenzene	20.0	19.7	98	80-120	
2,2-Dichloropropane	20.0	18.4	92	32-178	
2-Butanone (MEK)	40.0	41.5	104	43-149	
2-Chloroethyl vinyl ether	20.0	16.9	84	58-123	
2-Chlorotoluene	20.0	19.7	99	80-120	
2-Hexanone	40.0	34.5	86	28-169	
4-Chlorotoluene	20.0	19.6	98	79-120	
4-Isopropyltoluene	20.0	20.7	103	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	34.2	85	53-144	
Acetone	40.0	46.8	117	35-131	
Benzene	20.0	18.8	94	79-120	
Bromobenzene	20.0	18.5	93	73-120	
Bromoform	20.0	17.6	88	55-145	
Bromomethane	20.0	17.2	86	17-158	
Carbon disulfide	20.0	18.1	91	49-141	
Carbon tetrachloride	20.0	17.6	88	55-171	
Chlorobenzene	20.0	19.2	96	80-120	
Chlorodibromomethane	20.0	18.3	92	64-129	
Chloroethane	20.0	17.6	88	10-149	
Chloroform	20.0	18.8	94	80-120	
Chloromethane	20.0	16.2	81	59-124	
cis-1,2-Dichloroethene	20.0	19.3	96	77-120	
cis-1,3-Dichloropropene	20.0	17.8	89	75-120	
Dibromomethane	20.0	18.2	91	80-120	
Bromochloromethane	20.0	19.6	98	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900338.d

Lab ID: LCS 240-334440/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.8	69	42-141	
Bromodichloromethane	20.0	17.9	89	79-125	
tert-Butyl alcohol	200	273	136	52-136	
Ethylbenzene	20.0	19.4	97	80-120	
Hexachlorobutadiene	20.0	20.4	102	36-146	
Isopropylbenzene	20.0	19.8	99	80-128	
Methyl tert-butyl ether	20.0	19.3	96	73-120	
Methylene Chloride	20.0	17.6	88	64-140	
m-Xylene & p-Xylene	20.0	19.2	96	80-120	
Naphthalene	20.0	19.5	98	31-127	
n-Butylbenzene	20.0	20.8	104	60-137	
N-Propylbenzene	20.0	19.4	97	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	20.2	101	76-124	
Styrene	20.0	19.0	95	80-121	
Tetrachloroethene	20.0	18.6	93	80-122	
Toluene	20.0	18.4	92	78-120	
trans-1,2-Dichloroethene	20.0	18.9	94	74-124	
trans-1,3-Dichloropropene	20.0	17.0	85	67-120	
Trichloroethene	20.0	18.3	92	76-124	
Trichlorofluoromethane	20.0	18.6	93	27-176	
Vinyl acetate	20.0	21.9	110	42-141	
Vinyl chloride	20.0	17.2	86	65-124	
Xylenes, Total	40.0	38.8	97	80-120	
tert-Butylbenzene	20.0	20.0	100	79-120	
1,2-Dibromoethane	20.0	18.2	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: U1900369.d Lab Sample ID: MB 240-334645/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/03/2018 17:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334645/4	U1900366.d	07/03/2018 15:58
MSA-MW-51I-062718	240-97836-3	U1900391.d	07/04/2018 01:15
MSA-MW-51S-062718	240-97836-4	U1900392.d	07/04/2018 01:38
MSA-MW-47S-062718	240-97836-5	U1900393.d	07/04/2018 02:00

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334645/7

Matrix: Water Lab File ID: U1900369.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		73-120
1868-53-7	Dibromofluoromethane (Surr)	109		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334645/7

Matrix: Water Lab File ID: U1900369.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334645 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334645/7

Matrix: Water | Lab File ID: U1900369.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 17:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334645 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900366.d

Lab ID: LCS 240-334645/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.1	100	73-136	
1,1,1-Trichloroethane	20.0	19.2	96	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.7	94	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.3	96	65-144	
1,1-Dichloroethane	20.0	19.2	96	74-120	
1,1-Dichloroethene	20.0	19.6	98	65-127	
1,1-Dichloropropene	20.0	18.9	94	80-122	
1,2,3-Trichlorobenzene	20.0	21.0	105	31-144	
1,2,3-Trichloropropane	20.0	17.6	88	53-134	
1,2,4-Trichlorobenzene	20.0	21.0	105	34-141	
1,2,4-Trimethylbenzene	20.0	19.7	99	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.5	88	50-130	
1,2-Dichlorobenzene	20.0	20.1	101	80-120	
1,2-Dichloroethane	20.0	18.8	94	68-133	
1,2-Dichloropropane	20.0	18.2	91	78-127	
1,3-Dichlorobenzene	20.0	19.4	97	80-120	
1,3-Dichloropropane	20.0	17.5	87	71-124	
1,4-Dichlorobenzene	20.0	19.1	96	80-120	
2,2-Dichloropropane	20.0	18.9	95	32-178	
2-Butanone (MEK)	40.0	40.7	102	43-149	
2-Chloroethyl vinyl ether	20.0	15.8	79	58-123	
2-Chlorotoluene	20.0	19.6	98	80-120	
2-Hexanone	40.0	32.8	82	28-169	
4-Chlorotoluene	20.0	18.9	95	79-120	
4-Isopropyltoluene	20.0	21.1	106	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	32.4	81	53-144	
Acetone	40.0	50.7	127	35-131	
Benzene	20.0	19.0	95	79-120	
Bromobenzene	20.0	18.1	90	73-120	
Bromoform	20.0	16.9	84	55-145	
Bromomethane	20.0	17.4	87	17-158	
Carbon disulfide	20.0	18.8	94	49-141	
Carbon tetrachloride	20.0	18.5	93	55-171	
Chlorobenzene	20.0	19.4	97	80-120	
Chlorodibromomethane	20.0	18.1	90	64-129	
Chloroethane	20.0	17.7	88	10-149	
Chloroform	20.0	19.6	98	80-120	
Chloromethane	20.0	15.6	78	59-124	
cis-1,2-Dichloroethene	20.0	19.7	98	77-120	
cis-1,3-Dichloropropene	20.0	17.3	87	75-120	
Dibromomethane	20.0	18.5	93	80-120	
Bromochloromethane	20.0	20.2	101	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900366.d

Lab ID: LCS 240-334645/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	12.9	65	42-141	
Bromodichloromethane	20.0	17.8	89	79-125	
tert-Butyl alcohol	200	299	150	52-136	*
Ethylbenzene	20.0	19.7	98	80-120	
Hexachlorobutadiene	20.0	21.2	106	36-146	
Isopropylbenzene	20.0	21.0	105	80-128	
Methyl tert-butyl ether	20.0	19.5	98	73-120	
Methylene Chloride	20.0	18.4	92	64-140	
m-Xylene & p-Xylene	20.0	19.7	99	80-120	
Naphthalene	20.0	20.1	100	31-127	
n-Butylbenzene	20.0	21.2	106	60-137	
N-Propylbenzene	20.0	19.3	97	76-120	
o-Xylene	20.0	20.6	103	80-120	
sec-Butylbenzene	20.0	20.9	104	76-124	
Styrene	20.0	19.0	95	80-121	
Tetrachloroethene	20.0	19.1	95	80-122	
Toluene	20.0	19.1	96	78-120	
trans-1,2-Dichloroethene	20.0	19.5	98	74-124	
trans-1,3-Dichloropropene	20.0	16.8	84	67-120	
Trichloroethene	20.0	18.9	94	76-124	
Trichlorofluoromethane	20.0	18.7	93	27-176	
Vinyl acetate	20.0	21.7	108	42-141	
Vinyl chloride	20.0	16.8	84	65-124	
Xylenes, Total	40.0	40.3	101	80-120	
tert-Butylbenzene	20.0	20.1	100	79-120	
1,2-Dibromoethane	20.0	17.5	87	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: U1900398.d Lab Sample ID: MB 240-334715/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/04/2018 12:45

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334715/4	U1900395.d	07/04/2018 11:38
MSA-MW-47I-062718	240-97836-6	U1900408.d	07/04/2018 16:25
MSA-MW-47D-062718	240-97836-7	U1900409.d	07/04/2018 16:47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334715/7

Matrix: Water | Lab File ID: U1900398.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 12:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334715/7

Matrix: Water | Lab File ID: U1900398.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 12:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334715/7

Matrix: Water Lab File ID: U1900398.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 12:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-334715/7

Matrix: Water Lab File ID: U1900398.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2018 12:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 334715 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334715/7

Matrix: Water | Lab File ID: U1900398.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/04/2018 12:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334715 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900395.d

Lab ID: LCS 240-334715/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	20.9	104	73-136	
1,1,1-Trichloroethane	20.0	19.6	98	64-147	
1,1,2,2-Tetrachloroethane	20.0	18.2	91	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.9	100	65-144	
1,1-Dichloroethane	20.0	20.0	100	74-120	
1,1-Dichloroethene	20.0	20.3	102	65-127	
1,1-Dichloropropene	20.0	19.0	95	80-122	
1,2,3-Trichlorobenzene	20.0	22.9	115	31-144	
1,2,3-Trichloropropane	20.0	17.6	88	53-134	
1,2,4-Trichlorobenzene	20.0	22.2	111	34-141	
1,2,4-Trimethylbenzene	20.0	19.7	99	80-120	
1,2-Dibromo-3-Chloropropane	20.0	17.6	88	50-130	
1,2-Dichlorobenzene	20.0	20.3	102	80-120	
1,2-Dichloroethane	20.0	18.7	93	68-133	
1,2-Dichloropropane	20.0	18.0	90	78-127	
1,3-Dichlorobenzene	20.0	19.1	95	80-120	
1,3-Dichloropropane	20.0	16.5	82	71-124	
1,4-Dichlorobenzene	20.0	18.8	94	80-120	
2,2-Dichloropropane	20.0	20.9	105	32-178	
2-Butanone (MEK)	40.0	38.1	95	43-149	
2-Chloroethyl vinyl ether	20.0	13.4	67	58-123	
2-Chlorotoluene	20.0	19.9	99	80-120	
2-Hexanone	40.0	30.0	75	28-169	
4-Chlorotoluene	20.0	19.0	95	79-120	
4-Isopropyltoluene	20.0	21.0	105	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	30.1	75	53-144	
Acetone	40.0	49.8	124	35-131	
Benzene	20.0	19.2	96	79-120	
Bromobenzene	20.0	17.5	88	73-120	
Bromoform	20.0	16.8	84	55-145	
Bromomethane	20.0	18.3	91	17-158	
Carbon disulfide	20.0	19.6	98	49-141	
Carbon tetrachloride	20.0	19.0	95	55-171	
Chlorobenzene	20.0	19.0	95	80-120	
Chlorodibromomethane	20.0	17.9	90	64-129	
Chloroethane	20.0	18.6	93	10-149	
Chloroform	20.0	20.3	102	80-120	
Chloromethane	20.0	16.7	83	59-124	
cis-1,2-Dichloroethene	20.0	20.6	103	77-120	
cis-1,3-Dichloropropene	20.0	15.9	79	75-120	
Dibromomethane	20.0	18.5	93	80-120	
Bromochloromethane	20.0	21.1	106	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900395.d

Lab ID: LCS 240-334715/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.9	70	42-141	
Bromodichloromethane	20.0	17.4	87	79-125	
tert-Butyl alcohol	200	314	157	52-136	*
Ethylbenzene	20.0	19.9	99	80-120	
Hexachlorobutadiene	20.0	22.6	113	36-146	
Isopropylbenzene	20.0	21.5	107	80-128	
Methyl tert-butyl ether	20.0	20.2	101	73-120	
Methylene Chloride	20.0	19.4	97	64-140	
m-Xylene & p-Xylene	20.0	19.4	97	80-120	
Naphthalene	20.0	21.1	106	31-127	
n-Butylbenzene	20.0	21.6	108	60-137	
N-Propylbenzene	20.0	19.3	97	76-120	
o-Xylene	20.0	19.9	100	80-120	
sec-Butylbenzene	20.0	20.8	104	76-124	
Styrene	20.0	18.7	93	80-121	
Tetrachloroethene	20.0	19.2	96	80-122	
Toluene	20.0	18.9	94	78-120	
trans-1,2-Dichloroethene	20.0	20.5	102	74-124	
trans-1,3-Dichloropropene	20.0	15.5	77	67-120	
Trichloroethene	20.0	19.0	95	76-124	
Trichlorofluoromethane	20.0	19.6	98	27-176	
Vinyl acetate	20.0	20.5	103	42-141	
Vinyl chloride	20.0	18.3	92	65-124	
Xylenes, Total	40.0	39.3	98	80-120	
tert-Butylbenzene	20.0	20.0	100	79-120	
1,2-Dibromoethane	20.0	16.8	84	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: UXM12498.D Lab Sample ID: MB 240-335235/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/09/2018 12:16

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-335235/5	UXM12495.D	07/09/2018 11:05
TB-062818	240-97912-1	UXM12510.D	07/09/2018 17:32
MSA-MW-49D-062818	240-97912-2	UXM12511.D	07/09/2018 17:56
MSA-MW-49I-062818	240-97912-3	UXM12512.D	07/09/2018 18:19
MSA-MW-49S-062818	240-97912-4	UXM12513.D	07/09/2018 18:43
MSA-MW-46S-062818	240-97912-5	UXM12514.D	07/09/2018 19:07
MSA-MW-46I-062818	240-97912-6	UXM12515.D	07/09/2018 19:31
MSA-MW-46D-062818	240-97912-7	UXM12516.D	07/09/2018 19:55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335235/8

Matrix: Water | Lab File ID: UXM12498.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335235/8

Matrix: Water | Lab File ID: UXM12498.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335235/8

Matrix: Water Lab File ID: UXM12498.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 12:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	91		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335235/8

Matrix: Water | Lab File ID: UXM12498.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

Number TICs Found: 3 | TIC Result Total: 25.03

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	3.74	9.03	T J	
	Unknown	4.78	9.84	T J	
78-83-1	Isobutyl alcohol	5.47	6.16	J	90%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335235/8

Matrix: Water | Lab File ID: UXM12498.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/09/2018 12:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335235 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12495.D

Lab ID: LCS 240-335235/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.8	99	73-136	
1,1,1-Trichloroethane	20.0	20.3	102	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.1	100	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	18.8	94	65-144	
1,1-Dichloroethane	20.0	19.4	97	74-120	
1,1-Dichloroethene	20.0	21.2	106	65-127	
1,1-Dichloropropene	20.0	19.0	95	80-122	
1,2,3-Trichlorobenzene	20.0	16.7	84	31-144	
1,2,3-Trichloropropane	20.0	20.3	102	53-134	
1,2,4-Trichlorobenzene	20.0	16.9	84	34-141	
1,2,4-Trimethylbenzene	20.0	17.6	88	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.9	100	50-130	
1,2-Dichlorobenzene	20.0	18.3	91	80-120	
1,2-Dichloroethane	20.0	19.3	96	68-133	
1,2-Dichloropropane	20.0	20.0	100	78-127	
1,3-Dichlorobenzene	20.0	18.0	90	80-120	
1,3-Dichloropropane	20.0	19.1	96	71-124	
1,4-Dichlorobenzene	20.0	18.3	91	80-120	
2,2-Dichloropropane	20.0	18.8	94	32-178	
2-Butanone (MEK)	40.0	37.3	93	43-149	
2-Chloroethyl vinyl ether	20.0	20.2	101	58-123	
2-Chlorotoluene	20.0	18.6	93	80-120	
2-Hexanone	40.0	38.4	96	28-169	
4-Chlorotoluene	20.0	18.6	93	79-120	
4-Isopropyltoluene	20.0	17.2	86	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	38.9	97	53-144	
Acetone	40.0	33.8	85	35-131	
Benzene	20.0	19.5	97	79-120	
Bromobenzene	20.0	19.4	97	73-120	
Bromoform	20.0	19.7	99	55-145	
Bromomethane	20.0	20.0	100	17-158	
Carbon disulfide	20.0	17.2	86	49-141	
Carbon tetrachloride	20.0	20.2	101	55-171	
Chlorobenzene	20.0	18.9	94	80-120	
Chlorodibromomethane	20.0	20.7	103	64-129	
Chloroethane	20.0	18.4	92	10-149	
Chloroform	20.0	19.6	98	80-120	
Chloromethane	20.0	17.0	85	59-124	
cis-1,2-Dichloroethene	20.0	20.2	101	77-120	
cis-1,3-Dichloropropene	20.0	20.5	103	75-120	
Dibromomethane	20.0	19.8	99	80-120	
Bromochloromethane	20.0	20.2	101	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12495.D

Lab ID: LCS 240-335235/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	13.5	67	42-141	
Bromodichloromethane	20.0	20.2	101	79-125	
tert-Butyl alcohol	200	173	86	52-136	
Ethylbenzene	20.0	19.0	95	80-120	
Hexachlorobutadiene	20.0	11.3	56	36-146	
Isopropylbenzene	20.0	18.3	92	80-128	
Methyl tert-butyl ether	20.0	19.6	98	73-120	
Methylene Chloride	20.0	18.5	93	64-140	
m-Xylene & p-Xylene	20.0	18.9	94	80-120	
Naphthalene	20.0	16.4	82	31-127	
n-Butylbenzene	20.0	15.6	78	60-137	
N-Propylbenzene	20.0	18.4	92	76-120	
o-Xylene	20.0	19.1	96	80-120	
sec-Butylbenzene	20.0	16.8	84	76-124	
Styrene	20.0	18.8	94	80-121	
Tetrachloroethene	20.0	18.5	93	80-122	
Toluene	20.0	19.3	96	78-120	
trans-1,2-Dichloroethene	20.0	20.7	103	74-124	
trans-1,3-Dichloropropene	20.0	19.6	98	67-120	
Trichloroethene	20.0	19.3	97	76-124	
Trichlorofluoromethane	20.0	18.7	94	27-176	
Vinyl acetate	20.0	22.1	111	42-141	
Vinyl chloride	20.0	18.9	95	65-124	
Xylenes, Total	40.0	38.0	95	80-120	
tert-Butylbenzene	20.0	16.3	81	79-120	
1,2-Dibromoethane	20.0	19.7	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: UXM12596.D Lab Sample ID: MB 240-335864/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/12/2018 11:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-335864/5	UXM12592.D	07/12/2018 10:01
TB-062918	240-97969-1	UXM12605.D	07/12/2018 15:32
MSA-MW-48D-062918	240-97969-2	UXM12606.D	07/12/2018 15:56
MSA-MW-48I-062918	240-97969-3	UXM12607.D	07/12/2018 16:20
DMW-4S-062918	240-97969-5	UXM12609.D	07/12/2018 17:07
DMW-4I-062918	240-97969-6	UXM12610.D	07/12/2018 17:31
DMW-4D-062918	240-97969-7	UXM12611.D	07/12/2018 17:55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335864/9

Matrix: Water | Lab File ID: UXM12596.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335864/9

Matrix: Water | Lab File ID: UXM12596.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335864/9

Matrix: Water Lab File ID: UXM12596.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335864/9

Matrix: Water Lab File ID: UXM12596.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335864/9

Matrix: Water Lab File ID: UXM12596.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12592.D

Lab ID: LCS 240-335864/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.9	99	73-136	
1,1,1-Trichloroethane	20.0	21.3	106	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.2	101	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	20.0	100	65-144	
1,1-Dichloroethane	20.0	21.0	105	74-120	
1,1-Dichloroethene	20.0	22.8	114	65-127	
1,1-Dichloropropene	20.0	20.5	103	80-122	
1,2,3-Trichlorobenzene	20.0	18.1	91	31-144	
1,2,3-Trichloropropane	20.0	20.0	100	53-134	
1,2,4-Trichlorobenzene	20.0	18.2	91	34-141	
1,2,4-Trimethylbenzene	20.0	18.2	91	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.2	96	50-130	
1,2-Dichlorobenzene	20.0	18.8	94	80-120	
1,2-Dichloroethane	20.0	20.5	102	68-133	
1,2-Dichloropropane	20.0	21.4	107	78-127	
1,3-Dichlorobenzene	20.0	18.5	92	80-120	
1,3-Dichloropropane	20.0	19.8	99	71-124	
1,4-Dichlorobenzene	20.0	19.0	95	80-120	
2,2-Dichloropropane	20.0	19.8	99	32-178	
2-Butanone (MEK)	40.0	43.1	108	43-149	
2-Chloroethyl vinyl ether	20.0	21.2	106	58-123	
2-Chlorotoluene	20.0	19.4	97	80-120	
2-Hexanone	40.0	40.7	102	28-169	
4-Chlorotoluene	20.0	19.4	97	79-120	
4-Isopropyltoluene	20.0	17.9	90	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	42.3	106	53-144	
Acetone	40.0	40.4	101	35-131	
Benzene	20.0	20.8	104	79-120	
Bromobenzene	20.0	19.2	96	73-120	
Bromoform	20.0	19.6	98	55-145	
Bromomethane	20.0	21.4	107	17-158	
Carbon disulfide	20.0	23.2	116	49-141	
Carbon tetrachloride	20.0	20.6	103	55-171	
Chlorobenzene	20.0	19.5	97	80-120	
Chlorodibromomethane	20.0	20.4	102	64-129	
Chloroethane	20.0	20.3	101	10-149	
Chloroform	20.0	20.7	104	80-120	
Chloromethane	20.0	19.2	96	59-124	
cis-1,2-Dichloroethene	20.0	21.3	107	77-120	
cis-1,3-Dichloropropene	20.0	21.7	109	75-120	
Dibromomethane	20.0	20.8	104	80-120	
Bromochloromethane	20.0	20.8	104	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12592.D

Lab ID: LCS 240-335864/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.4	82	42-141	
Bromodichloromethane	20.0	20.6	103	79-125	
tert-Butyl alcohol	200	228	114	52-136	
Ethylbenzene	20.0	19.9	99	80-120	
Hexachlorobutadiene	20.0	12.0	60	36-146	
Isopropylbenzene	20.0	19.1	96	80-128	
Methyl tert-butyl ether	20.0	20.6	103	73-120	
Methylene Chloride	20.0	20.4	102	64-140	
m-Xylene & p-Xylene	20.0	19.7	99	80-120	
Naphthalene	20.0	17.3	86	31-127	
n-Butylbenzene	20.0	16.2	81	60-137	
N-Propylbenzene	20.0	19.1	96	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	17.6	88	76-124	
Styrene	20.0	19.5	97	80-121	
Tetrachloroethene	20.0	19.0	95	80-122	
Toluene	20.0	19.7	98	78-120	
trans-1,2-Dichloroethene	20.0	21.9	109	74-124	
trans-1,3-Dichloropropene	20.0	19.5	98	67-120	
Trichloroethene	20.0	20.2	101	76-124	
Trichlorofluoromethane	20.0	19.3	97	27-176	
Vinyl acetate	20.0	24.2	121	42-141	
Vinyl chloride	20.0	21.1	105	65-124	
Xylenes, Total	40.0	39.3	98	80-120	
tert-Butylbenzene	20.0	16.7	83	79-120	
1,2-Dibromoethane	20.0	20.0	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: UXM12625.D Lab Sample ID: MB 240-336057/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/13/2018 12:10

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-336057/5	UXM12621.D	07/13/2018 09:52
MSA-MW-48S-062918	240-97969-4	UXM12626.D	07/13/2018 12:49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336057/9

Matrix: Water Lab File ID: UXM12625.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336057/9

Matrix: Water Lab File ID: UXM12625.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12621.D

Lab ID: LCS 240-336057/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.4	97	73-136	
1,1,1-Trichloroethane	20.0	20.8	104	64-147	
1,1,2,2-Tetrachloroethane	20.0	19.7	98	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.6	98	65-144	
1,1-Dichloroethane	20.0	20.3	102	74-120	
1,1-Dichloroethene	20.0	23.0	115	65-127	
1,1-Dichloropropene	20.0	20.4	102	80-122	
1,2,3-Trichlorobenzene	20.0	18.8	94	31-144	
1,2,3-Trichloropropane	20.0	19.4	97	53-134	
1,2,4-Trichlorobenzene	20.0	18.5	92	34-141	
1,2,4-Trimethylbenzene	20.0	18.0	90	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.3	92	50-130	
1,2-Dichlorobenzene	20.0	18.4	92	80-120	
1,2-Dichloroethane	20.0	20.2	101	68-133	
1,2-Dichloropropane	20.0	21.2	106	78-127	
1,3-Dichlorobenzene	20.0	17.8	89	80-120	
1,3-Dichloropropane	20.0	19.6	98	71-124	
1,4-Dichlorobenzene	20.0	18.2	91	80-120	
2,2-Dichloropropane	20.0	21.8	109	32-178	
2-Butanone (MEK)	40.0	41.0	102	43-149	
2-Chloroethyl vinyl ether	20.0	21.1	105	58-123	
2-Chlorotoluene	20.0	18.8	94	80-120	
2-Hexanone	40.0	40.1	100	28-169	
4-Chlorotoluene	20.0	18.4	92	79-120	
4-Isopropyltoluene	20.0	17.7	88	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	41.6	104	53-144	
Acetone	40.0	41.1	103	35-131	
Benzene	20.0	20.6	103	79-120	
Bromobenzene	20.0	18.3	91	73-120	
Bromoform	20.0	19.1	95	55-145	
Bromomethane	20.0	21.7	109	17-158	
Carbon disulfide	20.0	23.4	117	49-141	
Carbon tetrachloride	20.0	20.5	102	55-171	
Chlorobenzene	20.0	19.1	96	80-120	
Chlorodibromomethane	20.0	20.1	101	64-129	
Chloroethane	20.0	20.0	100	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	19.5	97	59-124	
cis-1,2-Dichloroethene	20.0	20.9	104	77-120	
cis-1,3-Dichloropropene	20.0	21.1	105	75-120	
Dibromomethane	20.0	20.5	103	80-120	
Bromochloromethane	20.0	21.0	105	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12621.D

Lab ID: LCS 240-336057/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	17.6	88	42-141	
Bromodichloromethane	20.0	20.2	101	79-125	
tert-Butyl alcohol	200	237	118	52-136	
Ethylbenzene	20.0	19.6	98	80-120	
Hexachlorobutadiene	20.0	12.6	63	36-146	
Isopropylbenzene	20.0	19.1	95	80-128	
Methyl tert-butyl ether	20.0	20.2	101	73-120	
Methylene Chloride	20.0	19.9	99	64-140	
m-Xylene & p-Xylene	20.0	19.4	97	80-120	
Naphthalene	20.0	17.5	87	31-127	
n-Butylbenzene	20.0	16.3	81	60-137	
N-Propylbenzene	20.0	18.4	92	76-120	
o-Xylene	20.0	19.3	96	80-120	
sec-Butylbenzene	20.0	17.2	86	76-124	
Styrene	20.0	19.3	96	80-121	
Tetrachloroethene	20.0	19.3	97	80-122	
Toluene	20.0	19.4	97	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	74-124	
trans-1,3-Dichloropropene	20.0	19.1	96	67-120	
Trichloroethene	20.0	19.6	98	76-124	
Trichlorofluoromethane	20.0	20.1	101	27-176	
Vinyl acetate	20.0	23.9	120	42-141	
Vinyl chloride	20.0	21.4	107	65-124	
Xylenes, Total	40.0	38.7	97	80-120	
tert-Butylbenzene	20.0	17.8	89	79-120	
1,2-Dibromoethane	20.0	19.5	98	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: BFB5679.D BFB Injection Date: 07/06/2018

Instrument ID: A3UX16 BFB Injection Time: 17:27

Analysis Batch No.: 335057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.1	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.3	
175	5.0 - 9.0 % of mass 174	4.6	(6.0) 1
176	95.0 - 101.0 % of mass 174	73.1	(95.8) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-335057/8	UXM12451.D	07/06/2018	18:36
	STD8260 240-335057/9	UXM12452.D	07/06/2018	19:00
	STD8260 240-335057/10	UXM12453.D	07/06/2018	19:23
	ICIS 240-335057/11	UXM12454.D	07/06/2018	19:47
	STD8260 240-335057/12	UXM12455.D	07/06/2018	20:10
	STD8260 240-335057/13	UXM12456.D	07/06/2018	20:34
	STD8260 240-335057/14	UXM12457.D	07/06/2018	20:58
	ICV 240-335057/15	UXM12458.D	07/06/2018	21:52
	STDA9 240-335057/18	UXM12461.D	07/06/2018	23:04
	STDA9 240-335057/19	UXM12462.D	07/06/2018	23:27
	STDA9 240-335057/20	UXM12463.D	07/06/2018	23:51
	STDA9 240-335057/21	UXM12464.D	07/07/2018	00:15
	STDA9 240-335057/22	UXM12465.D	07/07/2018	00:39
	STDA9 240-335057/23	UXM12466.D	07/07/2018	01:02
	ICV 240-335057/24	UXM12467.D	07/07/2018	01:26

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2797 0.3392	0.4061 0.3654	0.3756	0.3179	0.3666	Ave		0.3501			0.1000	11.9		20.0			
Chloromethane	0.3187 0.3271	0.4104 0.3139	0.3578	0.3352	0.3279	Ave		0.3416			0.1000	9.8		20.0			
Vinyl chloride	0.2635 0.3356	0.3370 0.3439	0.3722	0.3266	0.3465	Ave		0.3322			0.1000	10.1		20.0			
Butadiene	0.2384 0.3014	0.3602 0.3279	0.3486	0.2837	0.3267	Ave		0.3124				13.4		20.0			
Bromomethane	0.1436 0.2234	0.2168 0.2273	0.2465	0.2197	0.2287	Ave		0.2151			0.0500	15.3		20.0			
Chloroethane	0.1980 0.2236	0.2481 0.2246	0.2427	0.2156	0.2249	Ave		0.2254			0.0500	7.4		20.0			
Dichlorofluoromethane	0.3785 0.4793	0.5405 0.4949	0.5329	0.4692	0.4894	Ave		0.4835				11.0		20.0			
Trichlorofluoromethane	0.3079 0.3754	0.4145 0.4015	0.4241	0.3568	0.3961	Ave		0.3823			0.1000	10.4		20.0			
Ethyl ether	0.2171 0.2408	0.2605 0.2398	0.2266	0.2378	0.2392	Ave		0.2374				5.7		20.0			
Acrolein	0.0541 0.0562	0.0567 0.0568	0.0575	0.0581	0.0585	Ave		0.0568				2.5		20.0			
1,1-Dichloroethene	0.1628 0.2453	0.2592 0.2441	0.2308	0.2280	0.2356	Ave		0.2294			0.1000	13.6		20.0			
Acetone	+++++ 0.0296	0.0409 0.0267	0.0303	0.0299	0.0302	Ave		0.0313			0.0100	15.7		20.0			
1,1,2-Trichlorotrifluoroethane	0.1370 0.1667	0.1744 0.1615	0.1574	0.1531	0.1565	Ave		0.1581			0.0500	7.4		20.0			
Iodomethane	0.3170 0.3865	0.3839 0.3820	0.3690	0.3692	0.3784	Ave		0.3694				6.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.5548 0.5608	0.6734 0.6823	0.6057	0.5035	0.6205	Ave		0.6001			0.1000	10.9		20.0			
3-Chloro-1-propene	0.4399 0.4327	0.4666 0.4311	0.3923	0.4209	0.4297	Ave		0.4305				5.1		20.0			
Methyl acetate	0.2667 0.2478	0.2566 0.2493	0.2451	0.2423	0.2484	Ave		0.2509			0.1000	3.3		20.0			
Methylene Chloride	+++++ 0.2866	0.3791 0.2839	0.2782	0.2805	0.2835	Ave		0.2986			0.1000	13.2		20.0			
tert-Butyl alcohol	0.0275 0.0307	0.0282 0.0244	0.0341	0.0339	0.0335	Ave		0.0303				12.4		20.0			
Acrylonitrile	0.1249 0.1249	0.1219 0.1260	0.1202	0.1211	0.1257	Ave		0.1235				1.9		20.0			
trans-1,2-Dichloroethene	0.2837 0.2932	0.2790 0.2972	0.2813	0.2837	0.2882	Ave		0.2866			0.1000	2.3		20.0			
Methyl tert-butyl ether	0.8932 0.9449	0.9372 0.9592	0.9086	0.9174	0.9377	Ave		0.9283			0.1000	2.5		20.0			
Hexane	+++++ 0.2367	0.3685 0.2323	0.2249	0.2119	0.2207	Lin1	0.1129	0.2265				8.8			0.9980		0.9900
1,1-Dichloroethane	0.4983 0.4973	0.5194 0.4959	0.4717	0.4783	0.4817	Ave		0.4918			0.2000	3.3		20.0			
Vinyl acetate	0.4488 0.5114	0.4942 0.5142	0.4729	0.4736	0.4994	Ave		0.4878				4.9		20.0			
cis-1,2-Dichloroethene	0.3015 0.3271	0.3159 0.3273	0.3118	0.3165	0.3194	Ave		0.3171			0.1000	2.8		20.0			
2,2-Dichloropropane	0.0631 0.0736	0.0744 0.0796	0.0728	0.0722	0.0724	Ave		0.0726				6.7		20.0			
2-Butanone (MEK)	0.0502 0.0417	0.0406 0.0417	0.0418	0.0412	0.0431	Ave		0.0429			0.0100	7.7		20.0			
Bromochloromethane	0.1280 0.1438	0.1457 0.1438	0.1390	0.1416	0.1427	Ave		0.1407				4.2		20.0			
Tetrahydrofuran	+++++ 0.0928	0.1322 0.0928	0.0954	0.0926	0.0943	Ave		0.1000				15.8		20.0			
Chloroform	0.4775 0.4907	0.5034 0.4899	0.4749	0.4789	0.4844	Ave		0.4857			0.2000	2.0		20.0			
1,1,1-Trichloroethane	0.3313 0.4116	0.3775 0.4109	0.3805	0.3911	0.3971	Ave		0.3857			0.1000	7.1		20.0			
Cyclohexane	0.3394 0.3698	0.4113 0.3609	0.3478	0.3400	0.3469	Ave		0.3594			0.1000	7.1		20.0			
1,1-Dichloropropene	0.3861 0.4008	0.4019 0.4013	0.3871	0.3868	0.3892	Ave		0.3933				1.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2539 0.3199	0.3056 0.3216	0.2888	0.2936	0.3030	Ave		0.2981			0.1000	7.7		20.0			
Isobutyl alcohol	0.0116 0.0098	0.0123 0.0089	0.0102	0.0100	0.0102	Ave		0.0104				11.1		20.0			
Benzene	1.1468 1.2193	1.1989 1.2182	1.1620	1.1740	1.1894	Ave		1.1869			0.5000	2.3		20.0			
1,2-Dichloroethane	0.4446 0.4294	0.4207 0.4255	0.4129	0.4228	0.4209	Ave		0.4252			0.1000	2.3		20.0			
n-Heptane	+++++ 0.1245	1.0187 0.1132	0.1703	0.1372	0.1225	Lin1	0.8918	0.1021				17.0			0.9950		0.9900
Trichloroethene	0.2947 0.3003	0.3271 0.2985	0.2891	0.2914	0.2895	Ave		0.2987			0.1500	4.4		20.0			
Methylcyclohexane	+++++ 0.3142	0.4815 0.3063	0.2981	0.2906	0.2965	Lin1	0.1483	0.3014			0.1000	7.1			0.9990		0.9900
1,2-Dichloropropane	0.2563 0.2770	0.2670 0.2734	0.2674	0.2681	0.2729	Ave		0.2689			0.1000	2.5		20.0			
Dibromomethane	0.1593 0.1775	0.1601 0.1767	0.1707	0.1710	0.1766	Ave		0.1703				4.5		20.0			
1,4-Dioxane	+++++ 0.0034	0.0018 0.0034	0.0029	0.0026	0.0035	Lin1	-0.043	0.0034				13.6			0.9940		0.9900
Bromodichloromethane	0.3245 0.3780	0.3400 0.3863	0.3480	0.3600	0.3736	Ave		0.3586			0.1500	6.2		20.0			
2-Chloroethyl vinyl ether	0.1709 0.1976	0.1716 0.1994	0.1814	0.1863	0.1959	Ave		0.1861				6.5		20.0			
cis-1,3-Dichloropropene	0.3694 0.4777	0.4071 0.4809	0.4351	0.4476	0.4725	Ave		0.4415			0.1500	9.4		20.0			
4-Methyl-2-pentanone (MIBK)	0.2905 0.2956	0.2776 0.2950	0.2921	0.2894	0.2994	Ave		0.2914			0.0500	2.4		20.0			
Toluene	1.6113 1.5620	1.5718 1.5574	1.5027	1.4934	1.5415	Ave		1.5486			0.4000	2.6		20.0			
trans-1,3-Dichloropropene	0.4153 0.5585	0.4705 0.5604	0.4935	0.5149	0.5448	Ave		0.5083			0.1000	10.4		20.0			
Ethyl methacrylate	0.4660 0.5350	0.4680 0.5380	0.5016	0.5139	0.5377	Ave		0.5086				6.2		20.0			
1,1,2-Trichloroethane	0.3076 0.3164	0.3056 0.3152	0.2978	0.3087	0.3178	Ave		0.3099			0.1000	2.3		20.0			
Tetrachloroethene	0.2516 0.2328	0.2597 0.2323	0.2245	0.2188	0.2227	Ave		0.2346			0.1500	6.6		20.0			
1,3-Dichloropropane	0.5459 0.5884	0.5639 0.5936	0.5701	0.5756	0.5888	Ave		0.5752				2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2442 0.2559	0.2328 0.2555	0.2501	0.2534	0.2631	Ave		0.2507			0.0500	3.9		20.0			
Chlorodibromomethane	0.2443 0.3156	0.2459 0.3187	0.2770	0.2936	0.3107	Ave		0.2865				11.1		20.0			
1,2-Dibromoethane	0.2852 0.3289	0.3100 0.3259	0.3113	0.3173	0.3282	Ave		0.3152				4.9		20.0			
Chlorobenzene	1.0087 0.9572	0.9650 0.9471	0.9328	0.9256	0.9479	Ave		0.9549			0.3000	2.9		20.0			
1,1,1,2-Tetrachloroethane	0.2910 0.3184	0.2927 0.3186	0.2946	0.3041	0.3159	Ave		0.3050				4.1		20.0			
Ethylbenzene	0.4790 0.4998	0.4952 0.4936	0.4823	0.4755	0.4880	Ave		0.4876				1.9		20.0			
m-Xylene & p-Xylene	0.6181 0.6088	0.6085 0.6095	0.5826	0.5902	0.6067	Ave		0.6035				2.1		20.0			
o-Xylene	0.5835 0.6107	0.6010 0.6058	0.5865	0.5852	0.6032	Ave		0.5966				1.9		20.0			
Styrene	1.0096 1.1098	1.0313 1.1001	1.0307	1.0580	1.0889	Ave		1.0612			0.3000	3.7		20.0			
Bromoform	+++++ 0.1966	0.1495 0.2017	0.1669	0.1785	0.1947	Ave		0.1813			0.1000	11.2		20.0			
Isopropylbenzene	1.4229 1.3377	1.4807 1.3103	1.3008	1.3032	1.3219	Ave		1.3539			0.1000	5.2		20.0			
1,1,2,2-Tetrachloroethane	0.8208 0.9053	0.7955 0.9151	0.8710	0.8767	0.9058	Ave		0.8700			0.3000	5.3		20.0			
Bromobenzene	0.6933 0.7600	0.7800 0.7539	0.7225	0.7207	0.7458	Ave		0.7395				3.9		20.0			
1,2,3-Trichloropropane	0.2974 0.3011	0.2825 0.3014	0.2815	0.2863	0.3024	Ave		0.2932				3.2		20.0			
trans-1,4-Dichloro-2-butene	0.2232 0.3030	0.2536 0.3070	0.2674	0.2771	0.2976	Ave		0.2756				11.0		20.0			
N-Propylbenzene	0.6802 0.6995	0.7466 0.6880	0.6537	0.6705	0.6916	Ave		0.6900				4.2		20.0			
2-Chlorotoluene	0.7098 0.6657	0.6831 0.6588	0.6469	0.6542	0.6635	Ave		0.6689				3.2		20.0			
1,3,5-Trimethylbenzene	2.1884 2.1623	2.2479 2.0838	2.0535	2.0794	2.1279	Ave		2.1347				3.2		20.0			
4-Chlorotoluene	0.7218 0.7130	0.7866 0.7014	0.6997	0.6826	0.7041	Ave		0.7156				4.7		20.0			
tert-Butylbenzene	2.1686 1.9285	2.2556 1.8251	1.7000	1.8545	1.8938	Ave		1.9466				10.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.5771 2.3023	2.4567 2.2247	2.2107	2.2128	2.2449	Ave		2.3185				6.2		20.0			
sec-Butylbenzene	2.6441 2.3146	2.9284 2.1320	2.2058	2.2090	2.2442	Ave		2.3826				12.3		20.0			
1,3-Dichlorobenzene	1.4359 1.2503	1.4618 1.2249	1.2199	1.2292	1.2375	Ave		1.2942			0.6000	8.2		20.0			
4-Isopropyltoluene	2.1150 1.9763	2.3932 1.7862	1.9012	1.9047	1.9493	Ave		2.0037				9.9		20.0			
1,4-Dichlorobenzene	1.4506 1.3070	1.4239 1.2801	1.2731	1.2703	1.2872	Ave		1.3275			0.5000	5.8		20.0			
n-Butylbenzene	2.2249 1.7023	2.4073 1.4911	1.6763	1.6490	1.6756	Ave		1.8324				18.6		20.0			
1,2-Dichlorobenzene	1.3101 1.2536	1.3623 1.2121	1.2181	1.2143	1.2388	Ave		1.2585			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1877	0.1364 0.1885	0.1619	0.1698	0.1844	Ave		0.1714			0.0500	11.8		20.0			
1,2,4-Trichlorobenzene	0.8660 0.5840	0.8629 0.5478	0.5875	0.5710	0.5764	Lin1	0.2042	0.5630			0.2000	11.5			0.9990		0.9900
Hexachlorobutadiene	+++++ 0.1879	0.6410 0.1511	0.2419	0.2088	0.1988	Ave		0.2716				67.5	*	20.0			
Naphthalene	2.6712 2.3767	2.8074 2.3406	2.2782	2.2138	2.3566	Ave		2.4349				9.0		20.0			
1,2,3-Trichlorobenzene	0.7434 0.5297	0.8163 0.5101	0.5384	0.5156	0.5366	Lin1	0.1744	0.5187				15.2			0.9990		0.9900
Dibromofluoromethane (Surr)	0.2071 0.2543	0.2506 0.2434	0.2424	0.2491	0.2433	Ave		0.2415				6.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3528 0.3720	0.3598 0.3487	0.3513	0.3473	0.3493	Ave		0.3545				2.5		20.0			
Toluene-d8 (Surr)	1.2192 1.3391	1.3411 1.3055	1.2909	1.3026	1.3118	Ave		1.3015				3.1		20.0			
4-Bromofluorobenzene (Surr)	0.4604 0.4611	0.5042 0.4441	0.4455	0.4494	0.4607	Ave		0.4608				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7697 1203566	22126 1732715	209900	366421	857328	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8772 1160621	22361 1488189	199980	386337	766814	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7252 1190716	18362 1630860	208008	376446	810225	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	6561 1069622	19625 1554694	194830	327026	764145	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	3951 792661	11810 1077838	137726	253228	534792	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	5450 793574	13516 1064867	135650	248454	525987	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	10418 1700912	29447 2346794	297811	540771	1144543	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8474 1332006	22581 1903678	237022	411276	926403	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5974 854584	14190 1136864	126641	274020	559367	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	7449 997903	15433 1345573	160693	334650	684283	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	4481 870515	14124 1157517	128956	262807	550912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 209972	4452 252978	33899	68823	141381	+++++ 120	2.00 160	20.0	40.0	80.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	3770 591393	9503 766009	87972	176496	365912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Iodomethane	FB	Ave	8725 1371666	20914 1811097	206184	425496	885057	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	15268 1990078	36689 3235247	338480	580304	1451114	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	12107 1535506	25419 2044286	219257	485079	1004899	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	14680 1758927	27959 2364078	273994	558419	1161974	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 1017113	20653 1346342	155453	323314	662989	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	7572 1088818	15390 1155145	190736	390688	783635	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	34385 4432411	66421 5975911	671778	1395710	2938569	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	7807 1040502	15199 1409329	157216	326948	673918	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	24584 3353137	51061 4548019	507738	1057366	2192958	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Lin1	+++++ 839935	20075 1101448	125659	244259	516214	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13713 1764546	28297 2351515	263621	551244	1126495	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	12351 1814839	26925 2438123	264296	545805	1167845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8298 1160689	17208 1552068	174245	364827	746939	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	1738 261323	4051 377441	40669	83271	169231	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	2762 296095	4424 395287	46756	95083	201522	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	3523 510380	7938 681995	77669	163199	333816	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 658882	14407 879606	106650	213412	441088	+++++ 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	13141 1741172	27425 2323099	265407	551939	1132932	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9119 1460404	20565 1948577	212615	450811	928612	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	9341 1312165	22408 1711065	194343	391871	811349	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10626 1422413	21894 1902963	216321	445806	910315	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6988 1135294	16648 1525111	161376	338350	708684	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	7980 867290	16791 1058340	142693	286828	593922	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	31561 4326655	65315 5776167	649373	1353122	2781532	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	12236 1523583	22918 2017504	230750	487288	984252	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 441703	55498 536842	95183	158123	286571	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	8111 1065446	17820 1415332	161564	335872	677130	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Lin1	+++++ 1114950	26231 1452454	166599	334969	693449	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	7053 982929	14547 1296475	149450	309050	638292	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	4384 629835	8723 837775	95409	197061	412925	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 243920	1945 318410	32782	60344	165164	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	8931 1341341	18526 1831820	194467	414882	873763	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	9405 1402099	18693 1891415	202749	429382	916432	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10168 1695194	22180 2280344	243162	515932	1105113	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	15991 2097677	30248 2797784	326480	667156	1400596	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	35552 4495747	67934 6009222	678668	1396007	2908979	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9163 1607425	20334 2162351	222909	481283	1028086	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	10281 1539885	20229 2075923	226540	480415	1014574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6787 910600	13207 1216109	134483	288610	599763	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5552 670148	11225 896494	101380	204540	420156	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12044 1693458	24373 2290244	257484	538097	1111033	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10777 1472941	20122 1971425	225889	473814	992952	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5390 908433	10629 1229629	125094	274457	586355	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6293 946605	13397 1257475	140605	296569	619238	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22256 2754961	41709 3654297	421296	865277	1788702	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6421 916435	12650 1229451	133071	284259	596034	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10568 1438416	21405 1904587	217821	444464	920946	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13637 1752312	26298 2351874	263123	551717	1144912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12875 1757808	25977 2337453	264893	547076	1138254	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	22276 3194215	44576 4244664	465498	989037	2054742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 565737	6462 778365	75381	166870	367485	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	31394 3850163	63998 5055752	587486	1218247	2494562	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9192 1259728	16956 1686508	194321	402301	836855	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7764 1057435	16626 1389441	161208	330686	689027	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3330 418896	6022 555554	62813	131351	279413	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2500 421626	5405 565728	59660	127167	274987	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	7617 973288	15913 1268037	145853	307693	639022	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7949 926296	14559 1214173	144322	300172	613056	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24507 3008635	47912 3840329	458148	954179	1966052	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8083 992037	16765 1292643	156100	313219	650568	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24285 2683363	48077 3363570	379293	850972	1749771	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	28860 3203438	52362 4100107	493225	1015397	2074105	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29610 3220603	62416 3929173	492141	1013627	2073485	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16080 1739752	31157 2257363	272181	564048	1143335	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	23685 2749918	51009 3291972	424176	874021	1800985	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	16245 1818536	30349 2359259	284036	582912	1189311	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	24916 2368633	51310 2748065	374001	756658	1548146	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14671 1744260	29036 2233768	271765	557217	1144552	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 261154	2907 347430	36111	77931	170338	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Lin1	9698 812603	18391 1009554	131079	262015	532517	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 261462	13662 278484	53967	95798	183651	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	29914 3307029	59838 4313698	508297	1015831	2177351	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	8325 736975	17399 940105	120133	236603	495742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5701 902478	13651 1154296	135472	287057	568968	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	9710 1320001	19603 1653488	196330	400288	816974	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	26900 3854217	57964 5037174	583042	1217624	2475529	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10159 1327235	21794 1713339	201214	420090	869391	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Hexane	+++++	12.8						50				
n-Heptane	+++++	24.3						50				
Methylcyclohexane	+++++	10.5						50				
1,4-Dioxane	+++++	16.8						50				
1,2,4-Trichlorobenzene	-18.7						50					
1,2,3-Trichlorobenzene	-23.9						50					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.3075	0.1000	0.0176	0.0200	-12.2	30.0
Chloromethane	Ave	0.3416	0.3364	0.1000	0.0197	0.0200	-1.5	30.0
Vinyl chloride	Ave	0.3322	0.3628	0.1000	0.0218	0.0200	9.2	30.0
Butadiene	Ave	0.3124	0.2886		0.0185	0.0200	-7.6	30.0
Bromomethane	Ave	0.2151	0.2402	0.0500	0.0223	0.0200	11.7	30.0
Chloroethane	Ave	0.2254	0.2415	0.0500	0.0214	0.0200	7.2	30.0
Dichlorofluoromethane	Ave	0.4835	0.5637		0.0233	0.0200	16.6	30.0
Trichlorofluoromethane	Ave	0.3823	0.4218	0.1000	0.0221	0.0200	10.3	30.0
Ethyl ether	Ave	0.2374	0.2830		0.0238	0.0200	19.2	30.0
Acrolein	Ave	0.0568	0.0355		0.0625	0.100	-37.5	50.0
1,1-Dichloroethene	Ave	0.2294	0.2811	0.1000	0.0245	0.0200	22.5	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1886	0.0500	0.0239	0.0200	19.3	30.0
Acetone	Ave	0.0313	0.0332	0.0100	0.0425	0.0400	6.3	50.0
Iodomethane	Ave	0.3694	0.4475		0.0242	0.0200	21.1	30.0
Carbon disulfide	Ave	0.6001	0.6656	0.1000	0.0222	0.0200	10.9	30.0
3-Chloro-1-propene	Ave	0.4305	0.4861		0.0226	0.0200	12.9	30.0
Methyl acetate	Ave	0.2509	0.2661	0.1000	0.0424	0.0400	6.1	30.0
Methylene Chloride	Ave	0.2986	0.3205	0.1000	0.0215	0.0200	7.3	50.0
tert-Butyl alcohol	Ave	0.0303	0.0349		0.230	0.200	15.1	50.0
Acrylonitrile	Ave	0.1235	0.1365		0.221	0.200	10.5	30.0
Methyl tert-butyl ether	Ave	0.9283	1.074	0.1000	0.0231	0.0200	15.7	30.0
trans-1,2-Dichloroethene	Ave	0.2866	0.3416	0.1000	0.0238	0.0200	19.2	30.0
Hexane	Lin1		0.2500		0.0216	0.0200	7.9	30.0
1,1-Dichloroethane	Ave	0.4918	0.5499	0.2000	0.0224	0.0200	11.8	30.0
Vinyl acetate	Ave	0.4878	0.6271		0.0257	0.0200	28.6	50.0
2,2-Dichloropropane	Ave	0.0726	0.0750		0.0207	0.0200	3.4	30.0
2-Butanone (MEK)	Ave	0.0429	0.0486	0.0100	0.0453	0.0400	13.3	30.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3699	0.1000	0.0233	0.0200	16.6	30.0
Bromochloromethane	Ave	0.1407	0.1646		0.0234	0.0200	17.0	30.0
Tetrahydrofuran	Ave	0.1000	0.1060		0.0424	0.0400	6.0	30.0
Chloroform	Ave	0.4857	0.5539	0.2000	0.0228	0.0200	14.0	30.0
1,1,1-Trichloroethane	Ave	0.3857	0.4572	0.1000	0.0237	0.0200	18.5	30.0
Cyclohexane	Ave	0.3594	0.3936	0.1000	0.0219	0.0200	9.5	30.0
1,1-Dichloropropene	Ave	0.3933	0.4369		0.0222	0.0200	11.1	30.0
Carbon tetrachloride	Ave	0.2981	0.3487	0.1000	0.0234	0.0200	17.0	30.0
Isobutyl alcohol	Ave	0.0104	0.0109		0.524	0.500	4.8	30.0
1,2-Dichloroethane	Ave	0.4252	0.4827	0.1000	0.0227	0.0200	13.5	30.0
Benzene	Ave	1.187	1.339	0.5000	0.0226	0.0200	12.8	30.0
n-Heptane	Lin1		0.1447		0.0196	0.0200	-1.9	30.0
Trichloroethene	Ave	0.2987	0.3311	0.1500	0.0222	0.0200	10.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.3144	0.1000	0.0204	0.0200	1.8	30.0
1,2-Dichloropropane	Ave	0.2689	0.3134	0.1000	0.0233	0.0200	16.6	30.0
1,4-Dioxane	Lin1		0.0036		0.436	0.400	9.0	50.0
Dibromomethane	Ave	0.1703	0.1911		0.0224	0.0200	12.2	30.0
Bromodichloromethane	Ave	0.3586	0.4152	0.1500	0.0232	0.0200	15.8	30.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.2132		0.0229	0.0200	14.5	30.0
cis-1,3-Dichloropropene	Ave	0.4415	0.5327	0.1500	0.0241	0.0200	20.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.3395	0.0500	0.0466	0.0400	16.5	30.0
Toluene	Ave	1.549	1.754	0.4000	0.0227	0.0200	13.3	30.0
trans-1,3-Dichloropropene	Ave	0.5083	0.5869	0.1000	0.0231	0.0200	15.5	30.0
Ethyl methacrylate	Ave	0.5086	0.5914		0.0233	0.0200	16.3	30.0
1,1,2-Trichloroethane	Ave	0.3099	0.3670	0.1000	0.0237	0.0200	18.4	30.0
1,3-Dichloropropane	Ave	0.5752	0.6587		0.0229	0.0200	14.5	30.0
Tetrachloroethene	Ave	0.2346	0.2529	0.1500	0.0216	0.0200	7.8	30.0
2-Hexanone	Ave	0.2507	0.2913	0.0500	0.0465	0.0400	16.2	30.0
Chlorodibromomethane	Ave	0.2865	0.3382		0.0236	0.0200	18.0	30.0
1,2-Dibromoethane	Ave	0.3152	0.3705		0.0235	0.0200	17.5	30.0
Chlorobenzene	Ave	0.9549	1.075	0.3000	0.0225	0.0200	12.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.3491		0.0229	0.0200	14.4	30.0
Ethylbenzene	Ave	0.4876	0.5502		0.0226	0.0200	12.8	30.0
m-Xylene & p-Xylene	Ave	0.6035	0.6898		0.0229	0.0200	14.3	30.0
o-Xylene	Ave	0.5966	0.6825		0.0229	0.0200	14.4	30.0
Styrene	Ave	1.061	1.200	0.3000	0.0226	0.0200	13.1	30.0
Bromoform	Ave	0.1813	0.2098	0.1000	0.0231	0.0200	15.7	30.0
Isopropylbenzene	Ave	1.354	1.500	0.1000	0.0222	0.0200	10.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	1.003	0.3000	0.0231	0.0200	15.3	30.0
Bromobenzene	Ave	0.7395	0.8252		0.0223	0.0200	11.6	30.0
1,2,3-Trichloropropane	Ave	0.2932	0.3440		0.0235	0.0200	17.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.3267		0.0237	0.0200	18.6	30.0
N-Propylbenzene	Ave	0.6900	0.7460		0.0216	0.0200	8.1	30.0
2-Chlorotoluene	Ave	0.6689	0.7344		0.0220	0.0200	9.8	30.0
1,3,5-Trimethylbenzene	Ave	2.135	2.280		0.0214	0.0200	6.8	30.0
4-Chlorotoluene	Ave	0.7156	0.7791		0.0218	0.0200	8.9	30.0
tert-Butylbenzene	Ave	1.947	2.049		0.0210	0.0200	5.2	30.0
1,2,4-Trimethylbenzene	Ave	2.318	2.446		0.0211	0.0200	5.5	30.0
sec-Butylbenzene	Ave	2.383	2.372		0.0199	0.0200	-0.4	30.0
1,3-Dichlorobenzene	Ave	1.294	1.360	0.6000	0.0210	0.0200	5.1	30.0
4-Isopropyltoluene	Ave	2.004	2.063		0.0206	0.0200	3.0	30.0
1,4-Dichlorobenzene	Ave	1.327	1.422	0.5000	0.0214	0.0200	7.1	30.0
n-Butylbenzene	Ave	1.832	1.677		0.0183	0.0200	-8.5	30.0
1,2-Dichlorobenzene	Ave	1.258	1.378	0.4000	0.0219	0.0200	9.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1986	0.0500	0.0232	0.0200	15.8	50.0
1,2,4-Trichlorobenzene	Lin1		0.5768	0.2000	0.0201	0.0200	0.6	50.0
Hexachlorobutadiene	Ave	0.2716	0.1877		0.0138	0.0200	-30.9*	30.0
Naphthalene	Ave	2.435	2.431		0.0200	0.0200	-0.2	50.0
1,2,3-Trichlorobenzene	Lin1		0.5234		0.0198	0.0200	-0.8	30.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2290		0.0190	0.0200	-5.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.3259		0.0184	0.0200	-8.1	30.0
Toluene-d8 (Surr)	Ave	1.301	1.285		0.0197	0.0200	-1.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4681		0.0203	0.0200	1.6	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0306 0.0382	0.0261	0.0386	0.0374	0.0371	Ave		0.0347				14.8		20.0			
Diisopropyl ether	0.2479 0.2826	0.2687	0.2720	0.2767	0.2692	Ave		0.2695				4.4		20.0			
2-Chloro-1,3-butadiene	0.4040 0.4749	0.4803	0.4493	0.4375	0.4645	Ave		0.4517				6.3		20.0			
Ethyl tert-butyl ether	0.8931 0.9626	0.9798	0.9248	0.9341	0.9086	Ave		0.9338				3.5		20.0			
Ethyl acetate	0.3108 0.2989	0.2987	0.2962	0.2919	0.2835	Ave		0.2967				3.0		20.0			
Propionitrile	0.0407 0.0487	0.0466	0.0484	0.0476	0.0469	Ave		0.0465				6.3		20.0			
Methacrylonitrile	0.1955 0.2062	0.2106	0.2022	0.1970	0.1962	Ave		0.2013				3.1		20.0			
Tert-amyl methyl ether	0.8806 0.9750	0.9782	0.9415	0.9459	0.9199	Ave		0.9402				3.9		20.0			
n-Butanol	0.0072 0.0095	0.0082	0.0086	0.0087	0.0094	Ave		0.0086				9.7		20.0			
Ethyl acrylate	0.3525 0.4189	0.3335	0.3917	0.3956	0.3938	Ave		0.3810				8.3		20.0			
Methyl methacrylate	0.2443 0.2957	0.2566	0.2846	0.2817	0.2774	Ave		0.2734				7.0		20.0			
2-Nitropropane	0.0705 0.0976	0.0772	0.0795	0.0829	0.0887	Ave		0.0827				11.4		20.0			
n-Butyl acetate	0.3803 0.4643	0.3977	0.4213	0.4390	0.4329	Ave		0.4226				7.1		20.0			
1-Chlorohexane	0.3965 0.3669	0.4202	0.3502	0.3345	0.3645	Ave		0.3721				8.4		20.0			
Cyclohexanone	+++++ 0.0287	0.0310	0.0286	0.0278	0.0296	Ave		0.0291				4.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1127 0.1848	0.1242	0.1274	0.1474	0.1674	Ave		0.1440				19.3		20.0			
1,2,3-Trimethylbenzene	2.3354 2.4479	2.5786	2.3582	2.3857	2.4127	Ave		2.4198				3.6		20.0			
Benzyl chloride	0.1681 0.3819	0.2686	0.2701	0.3007	0.3450	Lin1	-0.129	0.3577				17.3			0.9910		0.9900
1,3,5-Trichlorobenzene	+++++ 0.6065	0.9588	0.6665	0.6450	0.6702	Ave		0.7094				20.0		20.0			
2-Methylnaphthalene	+++++ 0.8141	1.6402	0.9562	0.9113	0.9821	Lin1	1.7068	0.8581				9.2			0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	8313 1741057	13603	214900	416890	854873	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	6741 1288858	13992	151462	308499	620210	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	10986 2165746	25013	250180	487761	1070126	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	24287 4390281	51029	514983	1041511	2093258	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	16902 2726526	31110	329866	650924	1306439	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	11072 2222643	24246	269584	530484	1080743	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	53166 9403328	109681	1126144	2196471	4520437	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	23947 4446839	50942	524288	1054626	2119184	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	4894 1078535	10686	119075	242005	540752	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	9585 1910511	17367	218099	441100	907210	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	13289 2696815	26730	316901	628151	1278010	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	3833 890174	8041	88550	184858	408814	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	10341 2117408	20710	234587	489514	997266	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	8850 1340662	16832	159394	299155	665507	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 518138	6189	63086	122890	264510	+++++ 800	10.0	100	200	400
Pentachloroethane	CBNZ d5	Ave	5030 1350341	9954	115994	263680	611262	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	25938 4426013	51512	519456	1053475	2157827	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1867 690527	5366	59491	132793	308572	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	+++++ 1096550	19154	146811	284821	599393	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	+++++ 2944018	65531	421280	804834	1756702	+++++ 160	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Benzyl chloride	19.2						50					
2-Methylnaphthalene	+++++	-8.3						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335057/24 Calibration Date: 07/07/2018 01:26

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12467.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2415	0.2010		0.0166	0.0200	-16.8	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2855		0.0161	0.0200	-19.4	30.0
Toluene-d8 (Surr)	Ave	1.301	1.126		0.0173	0.0200	-13.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4103		0.0178	0.0200	-11.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335057/24 Calibration Date: 07/07/2018 01:26

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12467.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0381		0.220	0.200	9.8	30.0
Diisopropyl ether	Ave	0.2695	0.2774		0.0206	0.0200	2.9	30.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4426		0.0196	0.0200	-2.0	30.0
Ethyl tert-butyl ether	Ave	0.9338	0.9252		0.0198	0.0200	-0.9	30.0
Ethyl acetate	Ave	0.2967	0.2976		0.0401	0.0400	0.3	50.0
Propionitrile	Ave	0.0465	0.0487		0.210	0.200	4.8	30.0
Methacrylonitrile	Ave	0.2013	0.2043		0.203	0.200	1.5	30.0
Tert-amyl methyl ether	Ave	0.9402	0.9395		0.0200	0.0200	-0.0	30.0
n-Butanol	Ave	0.0086	0.0085		0.497	0.500	-0.6	30.0
Ethyl acrylate	Ave	0.3810	0.4046		0.0212	0.0200	6.2	30.0
Methyl methacrylate	Ave	0.2734	0.2901		0.0424	0.0400	6.1	30.0
2-Nitropropane	Ave	0.0827	0.0849		0.0410	0.0400	2.6	30.0
n-Butyl acetate	Ave	0.4226	0.4604		0.0218	0.0200	9.0	30.0
1-Chlorohexane	Ave	0.3721	0.3338		0.0179	0.0200	-10.3	30.0
Cyclohexanone	Ave	0.0291	0.0296		0.203	0.200	1.5	30.0
Pentachloroethane	Ave	0.1440	0.1056		0.0293	0.0400	-26.7	30.0
1,2,3-Trimethylbenzene	Ave	2.420	2.380		0.0197	0.0200	-1.6	30.0
Benzyl chloride	Lin1		0.2667		0.0153	0.0200	-23.6	30.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.6087		0.0172	0.0200	-14.2	30.0
2-Methylnaphthalene	Lin1		0.7613		0.0335	0.0400	-16.3	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: BFB5682.D BFB Injection Date: 07/09/2018

Instrument ID: A3UX16 BFB Injection Time: 10:08

Analysis Batch No.: 335235

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	51.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.6	(0.9) 1
174	50.0 - 120.00 % of mass 95	70.9	
175	5.0 - 9.0 % of mass 174	5.0	(7.0) 1
176	95.0 - 101.0 % of mass 174	68.1	(96.0) 1
177	5.0 - 9.0 % of mass 176	4.3	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-335235/4	UXM12494.D	07/09/2018	10:42
	LCS 240-335235/5	UXM12495.D	07/09/2018	11:05
	CCV 240-335235/6	UXM12496.D	07/09/2018	11:30
	MB 240-335235/8	UXM12498.D	07/09/2018	12:16
TB-062818	240-97912-1	UXM12510.D	07/09/2018	17:32
MSA-MW-49D-062818	240-97912-2	UXM12511.D	07/09/2018	17:56
MSA-MW-49I-062818	240-97912-3	UXM12512.D	07/09/2018	18:19
MSA-MW-49S-062818	240-97912-4	UXM12513.D	07/09/2018	18:43
MSA-MW-46S-062818	240-97912-5	UXM12514.D	07/09/2018	19:07
MSA-MW-46I-062818	240-97912-6	UXM12515.D	07/09/2018	19:31
MSA-MW-46D-062818	240-97912-7	UXM12516.D	07/09/2018	19:55

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335235/4 Calibration Date: 07/09/2018 10:42

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12494.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.3562	0.1000	0.0204	0.0200	1.8	20.0
Chloromethane	Ave	0.3416	0.3352	0.1000	0.0196	0.0200	-1.9	20.0
Vinyl chloride	Ave	0.3322	0.3604	0.1000	0.0217	0.0200	8.5	20.0
Butadiene	Ave	0.3124	0.3411		0.0218	0.0200	9.2	20.0
Bromomethane	Ave	0.2151	0.2336	0.0500	0.0217	0.0200	8.6	20.0
Chloroethane	Ave	0.2254	0.2305	0.0500	0.0205	0.0200	2.3	20.0
Dichlorofluoromethane	Ave	0.4835	0.5117		0.0212	0.0200	5.8	20.0
Trichlorofluoromethane	Ave	0.3823	0.4047	0.1000	0.0212	0.0200	5.9	20.0
Ethyl ether	Ave	0.2374	0.2441		0.0206	0.0200	2.8	20.0
Acrolein	Ave	0.0568	0.0526		0.0925	0.100	-7.5	50.0
1,1-Dichloroethene	Ave	0.2294	0.2451	0.1000	0.0214	0.0200	6.8	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1610	0.0500	0.0204	0.0200	1.9	20.0
Acetone	Ave	0.0313	0.0289	0.0100	0.0370	0.0400	-7.4	50.0
Iodomethane	Ave	0.3694	0.4036		0.0218	0.0200	9.2	20.0
Carbon disulfide	Ave	0.6001	0.7270	0.1000	0.0242	0.0200	21.1*	20.0
3-Chloro-1-propene	Ave	0.4305	0.4308		0.0200	0.0200	0.0	20.0
Methyl acetate	Ave	0.2509	0.2480	0.1000	0.0395	0.0400	-1.1	20.0
Methylene Chloride	Ave	0.2986	0.2925	0.1000	0.0196	0.0200	-2.1	50.0
tert-Butyl alcohol	Ave	0.0303	0.0309		0.204	0.200	1.9	50.0
Acrylonitrile	Ave	0.1235	0.1225		0.198	0.200	-0.9	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.3003	0.1000	0.0210	0.0200	4.8	20.0
Methyl tert-butyl ether	Ave	0.9283	0.9477	0.1000	0.0204	0.0200	2.1	20.0
Hexane	Lin1		0.2169		0.0187	0.0200	-6.7	20.0
1,1-Dichloroethane	Ave	0.4918	0.5001	0.2000	0.0203	0.0200	1.7	20.0
Vinyl acetate	Ave	0.4878	0.4763		0.0195	0.0200	-2.4	50.0
2-Butanone (MEK)	Ave	0.0429	0.0403	0.0100	0.0376	0.0400	-6.0	20.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3386	0.1000	0.0214	0.0200	6.8	20.0
2,2-Dichloropropane	Ave	0.0726	0.0860		0.0237	0.0200	18.4	20.0
Bromochloromethane	Ave	0.1407	0.1501		0.0213	0.0200	6.7	20.0
Tetrahydrofuran	Ave	0.1000	0.0884		0.0353	0.0400	-11.6	20.0
Chloroform	Ave	0.4857	0.5065	0.2000	0.0209	0.0200	4.3	20.0
1,1,1-Trichloroethane	Ave	0.3857	0.4198	0.1000	0.0218	0.0200	8.8	20.0
Cyclohexane	Ave	0.3594	0.3501	0.1000	0.0195	0.0200	-2.6	20.0
1,1-Dichloropropene	Ave	0.3933	0.4024		0.0205	0.0200	2.3	20.0
Carbon tetrachloride	Ave	0.2981	0.3204	0.1000	0.0215	0.0200	7.5	20.0
Isobutyl alcohol	Ave	0.0104	0.0097		0.464	0.500	-7.2	20.0
1,2-Dichloroethane	Ave	0.4252	0.4320	0.1000	0.0203	0.0200	1.6	20.0
Benzene	Ave	1.187	1.212	0.5000	0.0204	0.0200	2.1	20.0
n-Heptane	Lin1		0.1254		0.0158	0.0200	-20.8*	20.0
Trichloroethene	Ave	0.2987	0.3062	0.1500	0.0205	0.0200	2.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335235/4 Calibration Date: 07/09/2018 10:42

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12494.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.2922	0.1000	0.0189	0.0200	-5.5	20.0
1,2-Dichloropropane	Ave	0.2689	0.2731	0.1000	0.0203	0.0200	1.6	20.0
1,4-Dioxane	Lin1		0.0025		0.314	0.400	-21.5	50.0
Dibromomethane	Ave	0.1703	0.1801		0.0212	0.0200	5.8	20.0
Bromodichloromethane	Ave	0.3586	0.3818	0.1500	0.0213	0.0200	6.5	20.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.1855		0.0399	0.0400	-0.3	20.0
cis-1,3-Dichloropropene	Ave	0.4415	0.4616	0.1500	0.0209	0.0200	4.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.2824	0.0500	0.0388	0.0400	-3.1	20.0
Toluene	Ave	1.549	1.516	0.4000	0.0196	0.0200	-2.1	20.0
trans-1,3-Dichloropropene	Ave	0.5083	0.5130	0.1000	0.0202	0.0200	0.9	20.0
Ethyl methacrylate	Ave	0.5086	0.4972		0.0196	0.0200	-2.2	20.0
1,1,2-Trichloroethane	Ave	0.3099	0.3127	0.1000	0.0202	0.0200	0.9	20.0
Tetrachloroethene	Ave	0.2346	0.2288	0.1500	0.0195	0.0200	-2.5	20.0
1,3-Dichloropropane	Ave	0.5752	0.5633		0.0196	0.0200	-2.1	20.0
2-Hexanone	Ave	0.2507	0.2304	0.0500	0.0368	0.0400	-8.1	20.0
Chlorodibromomethane	Ave	0.2865	0.3040		0.0212	0.0200	6.1	20.0
1,2-Dibromoethane	Ave	0.3152	0.3183		0.0202	0.0200	1.0	20.0
Chlorobenzene	Ave	0.9549	0.9326	0.3000	0.0195	0.0200	-2.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.3158		0.0207	0.0200	3.5	20.0
Ethylbenzene	Ave	0.4876	0.4938		0.0203	0.0200	1.3	20.0
m-Xylene & p-Xylene	Ave	0.6035	0.5946		0.0197	0.0200	-1.5	20.0
o-Xylene	Ave	0.5966	0.6149		0.0206	0.0200	3.1	20.0
Styrene	Ave	1.061	1.072	0.3000	0.0202	0.0200	1.0	20.0
Bromoform	Ave	0.1813	0.1860	0.1000	0.0205	0.0200	2.6	20.0
Isopropylbenzene	Ave	1.354	1.328	0.1000	0.0196	0.0200	-1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	0.8600	0.3000	0.0198	0.0200	-1.2	20.0
Bromobenzene	Ave	0.7395	0.7203		0.0195	0.0200	-2.6	20.0
1,2,3-Trichloropropane	Ave	0.2932	0.2824		0.0193	0.0200	-3.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.2709		0.0197	0.0200	-1.7	20.0
N-Propylbenzene	Ave	0.6900	0.6591		0.0191	0.0200	-4.5	20.0
2-Chlorotoluene	Ave	0.6689	0.6531		0.0195	0.0200	-2.4	20.0
1,3,5-Trimethylbenzene	Ave	2.135	2.075		0.0194	0.0200	-2.8	20.0
4-Chlorotoluene	Ave	0.7156	0.6847		0.0191	0.0200	-4.3	20.0
tert-Butylbenzene	Ave	1.947	1.852		0.0190	0.0200	-4.9	20.0
1,2,4-Trimethylbenzene	Ave	2.318	2.229		0.0192	0.0200	-3.9	20.0
sec-Butylbenzene	Ave	2.383	2.151		0.0181	0.0200	-9.7	20.0
1,3-Dichlorobenzene	Ave	1.294	1.241	0.6000	0.0192	0.0200	-4.1	20.0
4-Isopropyltoluene	Ave	2.004	1.850		0.0185	0.0200	-7.7	20.0
1,4-Dichlorobenzene	Ave	1.327	1.298	0.5000	0.0196	0.0200	-2.2	20.0
n-Butylbenzene	Ave	1.832	1.553		0.0170	0.0200	-15.2	20.0
1,2-Dichlorobenzene	Ave	1.258	1.226	0.4000	0.0195	0.0200	-2.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335235/4 Calibration Date: 07/09/2018 10:42

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12494.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1696	0.0500	0.0198	0.0200	-1.1	50.0
1,2,4-Trichlorobenzene	Lin1		0.5481	0.2000	0.0191	0.0200	-4.5	50.0
Hexachlorobutadiene	Ave	0.2716	0.1745		0.0128	0.0200	-35.8*	20.0
Naphthalene	Ave	2.435	2.142		0.0176	0.0200	-12.0	50.0
1,2,3-Trichlorobenzene	Lin1		0.4811		0.0182	0.0200	-8.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2033		0.0168	0.0200	-15.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.3048		0.0172	0.0200	-14.0	20.0
Toluene-d8 (Surr)	Ave	1.301	1.104		0.0170	0.0200	-15.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4114		0.0179	0.0200	-10.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335235/6 Calibration Date: 07/09/2018 11:30

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12496.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0340		0.196	0.200	-2.0	20.0
Diisopropyl ether	Ave	0.2695	0.2743		0.0204	0.0200	1.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4629		0.0205	0.0200	2.5	20.0
Ethyl tert-butyl ether	Ave	0.9338	0.9141		0.0196	0.0200	-2.1	20.0
Ethyl acetate	Ave	0.2967	0.2938		0.0396	0.0400	-1.0	50.0
Propionitrile	Ave	0.0465	0.0480		0.207	0.200	3.3	20.0
Methacrylonitrile	Ave	0.2013	0.1994		0.198	0.200	-1.0	20.0
Tert-amyl methyl ether	Ave	0.9402	0.9390		0.0200	0.0200	-0.1	20.0
n-Butanol	Ave	0.0086	0.0083		0.483	0.500	-3.3	20.0
Ethyl acrylate	Ave	0.3810	0.4075		0.0214	0.0200	6.9	20.0
Methyl methacrylate	Ave	0.2734	0.2863		0.0419	0.0400	4.7	20.0
2-Nitropropane	Ave	0.0827	0.0920		0.0445	0.0400	11.2	20.0
n-Butyl acetate	Ave	0.4226	0.4455		0.0211	0.0200	5.4	20.0
1-Chlorohexane	Ave	0.3721	0.3359		0.0181	0.0200	-9.7	20.0
Cyclohexanone	Ave	0.0291	0.0263		0.180	0.200	-9.9	20.0
Pentachloroethane	Ave	0.1440	0.1714		0.0476	0.0400	19.0	20.0
1,2,3-Trimethylbenzene	Ave	2.420	2.288		0.0189	0.0200	-5.5	20.0
Benzyl chloride	Lin1		0.3129		0.0179	0.0200	-10.7	20.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.5701		0.0161	0.0200	-19.6	20.0
2-Methylnaphthalene	Lin1		0.6434		0.0280	0.0400	-30.0*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: BFB5686.D BFB Injection Date: 07/12/2018

Instrument ID: A3UX16 BFB Injection Time: 09:00

Analysis Batch No.: 335864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	51.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.7	(1.0) 1
174	50.0 - 120.00 % of mass 95	71.8	
175	5.0 - 9.0 % of mass 174	5.6	(7.8) 1
176	95.0 - 101.0 % of mass 174	69.9	(97.3) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-335864/4	UXM12591.D	07/12/2018	09:25
	LCS 240-335864/5	UXM12592.D	07/12/2018	10:01
	CCV 240-335864/6	UXM12593.D	07/12/2018	10:24
	MB 240-335864/9	UXM12596.D	07/12/2018	11:35
TB-062918	240-97969-1	UXM12605.D	07/12/2018	15:32
MSA-MW-48D-062918	240-97969-2	UXM12606.D	07/12/2018	15:56
MSA-MW-48I-062918	240-97969-3	UXM12607.D	07/12/2018	16:20
DMW-4S-062918	240-97969-5	UXM12609.D	07/12/2018	17:07
DMW-4I-062918	240-97969-6	UXM12610.D	07/12/2018	17:31
DMW-4D-062918	240-97969-7	UXM12611.D	07/12/2018	17:55

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.2767	0.1000	0.0158	0.0200	-21.0*	20.0
Chloromethane	Ave	0.3416	0.3274	0.1000	0.0192	0.0200	-4.2	20.0
Vinyl chloride	Ave	0.3322	0.3543	0.1000	0.0213	0.0200	6.7	20.0
Butadiene	Ave	0.3124	0.2974		0.0190	0.0200	-4.8	20.0
Bromomethane	Ave	0.2151	0.2302	0.0500	0.0214	0.0200	7.0	20.0
Chloroethane	Ave	0.2254	0.2302	0.0500	0.0204	0.0200	2.1	20.0
Dichlorofluoromethane	Ave	0.4835	0.5070		0.0210	0.0200	4.8	20.0
Trichlorofluoromethane	Ave	0.3823	0.3673	0.1000	0.0192	0.0200	-3.9	20.0
Ethyl ether	Ave	0.2374	0.2441		0.0206	0.0200	2.8	20.0
Acrolein	Ave	0.0568	0.0634		0.111	0.100	11.5	50.0
1,1-Dichloroethene	Ave	0.2294	0.2452	0.1000	0.0214	0.0200	6.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1502	0.0500	0.0190	0.0200	-5.0	20.0
Acetone	Ave	0.0313	0.0313	0.0100	0.0401	0.0400	0.3	50.0
Iodomethane	Ave	0.3694	0.3895		0.0211	0.0200	5.4	20.0
Carbon disulfide	Ave	0.6001	0.5776	0.1000	0.0192	0.0200	-3.8	20.0
3-Chloro-1-propene	Ave	0.4305	0.4287		0.0199	0.0200	-0.4	20.0
Methyl acetate	Ave	0.2509	0.2541	0.1000	0.0405	0.0400	1.3	20.0
Methylene Chloride	Ave	0.2986	0.2915	0.1000	0.0195	0.0200	-2.4	50.0
tert-Butyl alcohol	Ave	0.0303	0.0344		0.227	0.200	13.3	50.0
Acrylonitrile	Ave	0.1235	0.1272		0.206	0.200	3.0	20.0
Methyl tert-butyl ether	Ave	0.9283	0.9213	0.1000	0.0198	0.0200	-0.8	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.2959	0.1000	0.0206	0.0200	3.2	20.0
Hexane	Lin1		0.2016		0.0173	0.0200	-13.5	20.0
1,1-Dichloroethane	Ave	0.4918	0.4941	0.2000	0.0201	0.0200	0.5	20.0
Vinyl acetate	Ave	0.4878	0.5094		0.0209	0.0200	4.4	50.0
2,2-Dichloropropane	Ave	0.0726	0.0693		0.0191	0.0200	-4.5	20.0
2-Butanone (MEK)	Ave	0.0429	0.0435	0.0100	0.0405	0.0400	1.3	20.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3228	0.1000	0.0204	0.0200	1.8	20.0
Bromochloromethane	Ave	0.1407	0.1433		0.0204	0.0200	1.8	20.0
Tetrahydrofuran	Ave	0.1000	0.0946		0.0378	0.0400	-5.4	20.0
Chloroform	Ave	0.4857	0.4825	0.2000	0.0199	0.0200	-0.6	20.0
1,1,1-Trichloroethane	Ave	0.3857	0.3910	0.1000	0.0203	0.0200	1.4	20.0
Cyclohexane	Ave	0.3594	0.3352	0.1000	0.0186	0.0200	-6.8	20.0
1,1-Dichloropropene	Ave	0.3933	0.3932		0.0200	0.0200	-0.0	20.0
Carbon tetrachloride	Ave	0.2981	0.3029	0.1000	0.0203	0.0200	1.6	20.0
Isobutyl alcohol	Ave	0.0104	0.0104		0.501	0.500	0.2	20.0
1,2-Dichloroethane	Ave	0.4252	0.4198	0.1000	0.0197	0.0200	-1.3	20.0
Benzene	Ave	1.187	1.199	0.5000	0.0202	0.0200	1.0	20.0
n-Heptane	Lin1		0.1161		0.0140	0.0200	-30.0*	20.0
Trichloroethene	Ave	0.2987	0.2893	0.1500	0.0194	0.0200	-3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.2652	0.1000	0.0171	0.0200	-14.5	20.0
1,2-Dichloropropane	Ave	0.2689	0.2713	0.1000	0.0202	0.0200	0.9	20.0
1,4-Dioxane	Lin1		0.0035		0.431	0.400	7.7	50.0
Dibromomethane	Ave	0.1703	0.1755		0.0206	0.0200	3.1	20.0
Bromodichloromethane	Ave	0.3586	0.3626	0.1500	0.0202	0.0200	1.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.1879		0.0404	0.0400	0.9	20.0
cis-1,3-Dichloropropene	Ave	0.4415	0.4389	0.1500	0.0199	0.0200	-0.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.3020	0.0500	0.0415	0.0400	3.6	20.0
Toluene	Ave	1.549	1.493	0.4000	0.0193	0.0200	-3.6	20.0
trans-1,3-Dichloropropene	Ave	0.5083	0.4996	0.1000	0.0197	0.0200	-1.7	20.0
Ethyl methacrylate	Ave	0.5086	0.5043		0.0198	0.0200	-0.8	20.0
1,1,2-Trichloroethane	Ave	0.3099	0.3037	0.1000	0.0196	0.0200	-2.0	20.0
Tetrachloroethene	Ave	0.2346	0.2178	0.1500	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5752	0.5735		0.0199	0.0200	-0.3	20.0
2-Hexanone	Ave	0.2507	0.2580	0.0500	0.0412	0.0400	2.9	20.0
Chlorodibromomethane	Ave	0.2865	0.2905		0.0203	0.0200	1.4	20.0
1,2-Dibromoethane	Ave	0.3152	0.3150		0.0200	0.0200	-0.0	20.0
Chlorobenzene	Ave	0.9549	0.9088	0.3000	0.0190	0.0200	-4.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.2967		0.0195	0.0200	-2.7	20.0
Ethylbenzene	Ave	0.4876	0.4732		0.0194	0.0200	-3.0	20.0
m-Xylene & p-Xylene	Ave	0.6035	0.5758		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.5966	0.5766		0.0193	0.0200	-3.3	20.0
Styrene	Ave	1.061	1.035	0.3000	0.0195	0.0200	-2.4	20.0
Bromoform	Ave	0.1813	0.1741	0.1000	0.0192	0.0200	-4.0	20.0
Isopropylbenzene	Ave	1.354	1.276	0.1000	0.0188	0.0200	-5.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	0.8548	0.3000	0.0196	0.0200	-1.8	20.0
Bromobenzene	Ave	0.7395	0.6924		0.0187	0.0200	-6.4	20.0
1,2,3-Trichloropropane	Ave	0.2932	0.2865		0.0195	0.0200	-2.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.2645		0.0192	0.0200	-4.0	20.0
N-Propylbenzene	Ave	0.6900	0.6323		0.0183	0.0200	-8.4	20.0
2-Chlorotoluene	Ave	0.6689	0.6111		0.0183	0.0200	-8.6	20.0
1,3,5-Trimethylbenzene	Ave	2.135	1.960		0.0184	0.0200	-8.2	20.0
4-Chlorotoluene	Ave	0.7156	0.6562		0.0183	0.0200	-8.3	20.0
tert-Butylbenzene	Ave	1.947	1.711		0.0176	0.0200	-12.1	20.0
1,2,4-Trimethylbenzene	Ave	2.318	2.071		0.0179	0.0200	-10.7	20.0
sec-Butylbenzene	Ave	2.383	1.989		0.0167	0.0200	-16.5	20.0
1,3-Dichlorobenzene	Ave	1.294	1.151	0.6000	0.0178	0.0200	-11.1	20.0
4-Isopropyltoluene	Ave	2.004	1.704		0.0170	0.0200	-15.0	20.0
1,4-Dichlorobenzene	Ave	1.327	1.200	0.5000	0.0181	0.0200	-9.6	20.0
n-Butylbenzene	Ave	1.832	1.405		0.0153	0.0200	-23.3*	20.0
1,2-Dichlorobenzene	Ave	1.258	1.171	0.4000	0.0186	0.0200	-7.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1633	0.0500	0.0191	0.0200	-4.7	50.0
1,2,4-Trichlorobenzene	Lin1		0.4965	0.2000	0.0173	0.0200	-13.6	50.0
Hexachlorobutadiene	Ave	0.2716	0.1489		0.0110	0.0200	-45.2*	20.0
Naphthalene	Ave	2.435	2.029		0.0167	0.0200	-16.7	50.0
1,2,3-Trichlorobenzene	Lin1		0.4397		0.0166	0.0200	-16.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2079		0.0172	0.0200	-13.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2906		0.0164	0.0200	-18.0	20.0
Toluene-d8 (Surr)	Ave	1.301	1.142		0.0176	0.0200	-12.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4192		0.0182	0.0200	-9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335864/6 Calibration Date: 07/12/2018 10:24

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12593.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0369		0.213	0.200	6.3	20.0
Diisopropyl ether	Ave	0.2695	0.2713		0.0201	0.0200	0.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4560		0.0202	0.0200	1.0	20.0
Ethyl tert-butyl ether	Ave	0.9338	0.9086		0.0195	0.0200	-2.7	20.0
Ethyl acetate	Ave	0.2967	0.2998		0.0404	0.0400	1.1	50.0
Propionitrile	Ave	0.0465	0.0494		0.213	0.200	6.3	20.0
Methacrylonitrile	Ave	0.2013	0.2046		0.203	0.200	1.6	20.0
Tert-amyl methyl ether	Ave	0.9402	0.9161		0.0195	0.0200	-2.6	20.0
n-Butanol	Ave	0.0086	0.0089		0.518	0.500	3.7	20.0
Ethyl acrylate	Ave	0.3810	0.4073		0.0214	0.0200	6.9	20.0
Methyl methacrylate	Ave	0.2734	0.2863		0.0419	0.0400	4.7	20.0
2-Nitropropane	Ave	0.0827	0.0839		0.0406	0.0400	1.4	20.0
n-Butyl acetate	Ave	0.4226	0.4513		0.0214	0.0200	6.8	20.0
1-Chlorohexane	Ave	0.3721	0.3202		0.0172	0.0200	-14.0	20.0
Cyclohexanone	Ave	0.0291	0.0288		0.198	0.200	-1.0	20.0
Pentachloroethane	Ave	0.1440	0.1591		0.0442	0.0400	10.5	20.0
1,2,3-Trimethylbenzene	Ave	2.420	2.228		0.0184	0.0200	-7.9	20.0
Benzyl chloride	Lin1		0.2822		0.0161	0.0200	-19.3	20.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.5458		0.0154	0.0200	-23.1*	20.0
2-Methylnaphthalene	Lin1		0.6897		0.0302	0.0400	-24.6*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: BFB5687.D BFB Injection Date: 07/13/2018

Instrument ID: A3UX16 BFB Injection Time: 09:01

Analysis Batch No.: 336057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.2	
75	30.0 - 60.0 % of mass 95	51.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.8) 1
174	50.0 - 120.00 % of mass 95	73.2	
175	5.0 - 9.0 % of mass 174	5.1	(7.0) 1
176	95.0 - 101.0 % of mass 174	71.8	(98.0) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-336057/4	UXM12620.D	07/13/2018	09:29
	LCS 240-336057/5	UXM12621.D	07/13/2018	09:52
	CCV 240-336057/6	UXM12622.D	07/13/2018	10:58
	MB 240-336057/9	UXM12625.D	07/13/2018	12:10
MSA-MW-48S-062918	240-97969-4	UXM12626.D	07/13/2018	12:49

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.3424	0.1000	0.0196	0.0200	-2.2	20.0
Chloromethane	Ave	0.3416	0.3067	0.1000	0.0180	0.0200	-10.2	20.0
Vinyl chloride	Ave	0.3322	0.3436	0.1000	0.0207	0.0200	3.4	20.0
Butadiene	Ave	0.3124	0.2960		0.0189	0.0200	-5.3	20.0
Bromomethane	Ave	0.2151	0.2177	0.0500	0.0202	0.0200	1.2	20.0
Chloroethane	Ave	0.2254	0.2144	0.0500	0.0190	0.0200	-4.9	20.0
Dichlorofluoromethane	Ave	0.4835	0.4619		0.0191	0.0200	-4.5	20.0
Trichlorofluoromethane	Ave	0.3823	0.3590	0.1000	0.0188	0.0200	-6.1	20.0
Ethyl ether	Ave	0.2374	0.2402		0.0202	0.0200	1.2	20.0
Acrolein	Ave	0.0568	0.0625		0.110	0.100	10.0	50.0
1,1-Dichloroethene	Ave	0.2294	0.2492	0.1000	0.0217	0.0200	8.6	20.0
Acetone	Ave	0.0313	0.0316	0.0100	0.0404	0.0400	1.0	50.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1600	0.0500	0.0202	0.0200	1.2	20.0
Iodomethane	Ave	0.3694	0.3800		0.0206	0.0200	2.9	20.0
Carbon disulfide	Ave	0.6001	0.4958	0.1000	0.0165	0.0200	-17.4	20.0
3-Chloro-1-propene	Ave	0.4305	0.4247		0.0197	0.0200	-1.3	20.0
Methyl acetate	Ave	0.2509	0.2549	0.1000	0.0406	0.0400	1.6	20.0
Methylene Chloride	Ave	0.2986	0.2835	0.1000	0.0190	0.0200	-5.1	50.0
tert-Butyl alcohol	Ave	0.0303	0.0336		0.222	0.200	10.9	50.0
Acrylonitrile	Ave	0.1235	0.1269		0.205	0.200	2.7	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.2890	0.1000	0.0202	0.0200	0.8	20.0
Methyl tert-butyl ether	Ave	0.9283	0.9123	0.1000	0.0197	0.0200	-1.7	20.0
Hexane	Lin1		0.2155		0.0185	0.0200	-7.3	20.0
1,1-Dichloroethane	Ave	0.4918	0.4866	0.2000	0.0198	0.0200	-1.1	20.0
Vinyl acetate	Ave	0.4878	0.4724		0.0194	0.0200	-3.1	50.0
2,2-Dichloropropane	Ave	0.0726	0.0650		0.0179	0.0200	-10.5	20.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3215	0.1000	0.0203	0.0200	1.4	20.0
2-Butanone (MEK)	Ave	0.0429	0.0432	0.0100	0.0403	0.0400	0.7	20.0
Bromochloromethane	Ave	0.1407	0.1391		0.0198	0.0200	-1.1	20.0
Tetrahydrofuran	Ave	0.1000	0.0935		0.0374	0.0400	-6.5	20.0
Chloroform	Ave	0.4857	0.4808	0.2000	0.0198	0.0200	-1.0	20.0
1,1,1-Trichloroethane	Ave	0.3857	0.3817	0.1000	0.0198	0.0200	-1.1	20.0
Cyclohexane	Ave	0.3594	0.3548	0.1000	0.0197	0.0200	-1.3	20.0
1,1-Dichloropropene	Ave	0.3933	0.3909		0.0199	0.0200	-0.6	20.0
Carbon tetrachloride	Ave	0.2981	0.3000	0.1000	0.0201	0.0200	0.6	20.0
Isobutyl alcohol	Ave	0.0104	0.0104		0.497	0.500	-0.5	20.0
1,2-Dichloroethane	Ave	0.4252	0.4198	0.1000	0.0197	0.0200	-1.3	20.0
Benzene	Ave	1.187	1.190	0.5000	0.0201	0.0200	0.3	20.0
n-Heptane	Lin1		0.1237		0.0155	0.0200	-22.5*	20.0
Trichloroethene	Ave	0.2987	0.2881	0.1500	0.0193	0.0200	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.2850	0.1000	0.0184	0.0200	-7.9	20.0
1,2-Dichloropropane	Ave	0.2689	0.2622	0.1000	0.0195	0.0200	-2.5	20.0
1,4-Dioxane	Lin1		0.0036		0.437	0.400	9.3	50.0
Dibromomethane	Ave	0.1703	0.1743		0.0205	0.0200	2.4	20.0
Bromodichloromethane	Ave	0.3586	0.3560	0.1500	0.0199	0.0200	-0.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.1834		0.0394	0.0400	-1.5	20.0
cis-1,3-Dichloropropene	Ave	0.4415	0.4383	0.1500	0.0199	0.0200	-0.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.2954	0.0500	0.0406	0.0400	1.4	20.0
Toluene	Ave	1.549	1.470	0.4000	0.0190	0.0200	-5.1	20.0
trans-1,3-Dichloropropene	Ave	0.5083	0.4832	0.1000	0.0190	0.0200	-4.9	20.0
Ethyl methacrylate	Ave	0.5086	0.4921		0.0194	0.0200	-3.2	20.0
1,1,2-Trichloroethane	Ave	0.3099	0.3003	0.1000	0.0194	0.0200	-3.1	20.0
Tetrachloroethene	Ave	0.2346	0.2178	0.1500	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5752	0.5556		0.0193	0.0200	-3.4	20.0
2-Hexanone	Ave	0.2507	0.2551	0.0500	0.0407	0.0400	1.7	20.0
Chlorodibromomethane	Ave	0.2865	0.2825		0.0197	0.0200	-1.4	20.0
1,2-Dibromoethane	Ave	0.3152	0.3037		0.0193	0.0200	-3.7	20.0
Chlorobenzene	Ave	0.9549	0.8890	0.3000	0.0186	0.0200	-6.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.2863		0.0188	0.0200	-6.1	20.0
Ethylbenzene	Ave	0.4876	0.4674		0.0192	0.0200	-4.2	20.0
m-Xylene & p-Xylene	Ave	0.6035	0.5723		0.0190	0.0200	-5.2	20.0
o-Xylene	Ave	0.5966	0.5781		0.0194	0.0200	-3.1	20.0
Styrene	Ave	1.061	1.021	0.3000	0.0192	0.0200	-3.8	20.0
Bromoform	Ave	0.1813	0.1718	0.1000	0.0189	0.0200	-5.3	20.0
Isopropylbenzene	Ave	1.354	1.246	0.1000	0.0184	0.0200	-8.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	0.8660	0.3000	0.0199	0.0200	-0.5	20.0
Bromobenzene	Ave	0.7395	0.6854		0.0185	0.0200	-7.3	20.0
1,2,3-Trichloropropane	Ave	0.2932	0.2821		0.0192	0.0200	-3.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.2677		0.0194	0.0200	-2.9	20.0
N-Propylbenzene	Ave	0.6900	0.6282		0.0182	0.0200	-9.0	20.0
2-Chlorotoluene	Ave	0.6689	0.6100		0.0182	0.0200	-8.8	20.0
1,3,5-Trimethylbenzene	Ave	2.135	1.941		0.0182	0.0200	-9.1	20.0
4-Chlorotoluene	Ave	0.7156	0.6416		0.0179	0.0200	-10.3	20.0
tert-Butylbenzene	Ave	1.947	1.735		0.0178	0.0200	-10.9	20.0
1,2,4-Trimethylbenzene	Ave	2.318	2.082		0.0180	0.0200	-10.2	20.0
sec-Butylbenzene	Ave	2.383	2.014		0.0169	0.0200	-15.5	20.0
1,3-Dichlorobenzene	Ave	1.294	1.140	0.6000	0.0176	0.0200	-11.9	20.0
4-Isopropyltoluene	Ave	2.004	1.725		0.0172	0.0200	-13.9	20.0
1,4-Dichlorobenzene	Ave	1.327	1.214	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	1.832	1.450		0.0158	0.0200	-20.9*	20.0
1,2-Dichlorobenzene	Ave	1.258	1.159	0.4000	0.0184	0.0200	-7.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1611	0.0500	0.0188	0.0200	-6.0	50.0
1,2,4-Trichlorobenzene	Lin1		0.4946	0.2000	0.0172	0.0200	-14.0	50.0
Hexachlorobutadiene	Ave	0.2716	0.1624		0.0120	0.0200	-40.2*	20.0
Naphthalene	Ave	2.435	2.024		0.0166	0.0200	-16.9	50.0
1,2,3-Trichlorobenzene	Lin1		0.4494		0.0170	0.0200	-15.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2078		0.0172	0.0200	-14.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2885		0.0163	0.0200	-18.6	20.0
Toluene-d8 (Surr)	Ave	1.301	1.110		0.0171	0.0200	-14.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4201		0.0182	0.0200	-8.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-336057/6 Calibration Date: 07/13/2018 10:58

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12622.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0388		0.224	0.200	11.9	20.0
Diisopropyl ether	Ave	0.2695	0.2795		0.0207	0.0200	3.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4895		0.0217	0.0200	8.4	20.0
Ethyl tert-butyl ether	Ave	0.9338	0.9329		0.0200	0.0200	-0.1	20.0
Ethyl acetate	Ave	0.2967	0.2912		0.0393	0.0400	-1.8	50.0
Propionitrile	Ave	0.0465	0.0511		0.220	0.200	10.0	20.0
Methacrylonitrile	Ave	0.2013	0.2063		0.205	0.200	2.5	20.0
Tert-amyl methyl ether	Ave	0.9402	0.9502		0.0202	0.0200	1.1	20.0
n-Butanol	Ave	0.0086	0.0080		0.468	0.500	-6.5	20.0
Ethyl acrylate	Ave	0.3810	0.3874		0.0203	0.0200	1.7	20.0
Methyl methacrylate	Ave	0.2734	0.2795		0.0409	0.0400	2.2	20.0
2-Nitropropane	Ave	0.0827	0.0839		0.0405	0.0400	1.4	20.0
n-Butyl acetate	Ave	0.4226	0.4246		0.0201	0.0200	0.5	20.0
1-Chlorohexane	Ave	0.3721	0.3344		0.0180	0.0200	-10.1	20.0
Cyclohexanone	Ave	0.0291	0.0281		0.193	0.200	-3.5	20.0
Pentachloroethane	Ave	0.1440	0.1170		0.0325	0.0400	-18.7	20.0
1,2,3-Trimethylbenzene	Ave	2.420	2.280		0.0188	0.0200	-5.8	20.0
Benzyl chloride	Lin1		0.2740		0.0157	0.0200	-21.6*	20.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.5434		0.0153	0.0200	-23.4*	20.0
2-Methylnaphthalene	Lin1		0.6441		0.0280	0.0400	-29.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: bfb004.d BFB Injection Date: 06/21/2018

Instrument ID: A3UX19 BFB Injection Time: 18:54

Analysis Batch No.: 332816

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	84.6	
175	5.0 - 9.0 % of mass 174	6.0	(7.0) 1
176	95.0 - 101.0 % of mass 174	83.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-332816/8	U1900002.d	06/21/2018	19:43
	STD8260 240-332816/9	U1900003.d	06/21/2018	20:05
	STD8260 240-332816/10	U1900004.d	06/21/2018	20:28
	ICIS 240-332816/11	U1900005.d	06/21/2018	20:50
	STD8260 240-332816/12	U1900006.d	06/21/2018	21:12
	STD8260 240-332816/13	U1900007.d	06/21/2018	21:35
	STD8260 240-332816/14	U1900008.d	06/21/2018	21:57
	ICV 240-332816/15	U1900009.d	06/21/2018	22:19
	STDA9 240-332816/18	U1900012.d	06/21/2018	23:25
	STDA9 240-332816/19	U1900013.d	06/21/2018	23:47
	STDA9 240-332816/20	U1900014.d	06/22/2018	00:09
	STDA9 240-332816/21	U1900015.d	06/22/2018	00:31
	STDA9 240-332816/22	U1900016.d	06/22/2018	00:54
	STDA9 240-332816/23	U1900017.d	06/22/2018	01:16
	ICV 240-332816/24	U1900018.d	06/22/2018	01:38

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4528 0.4563	0.3722 0.4281	0.4215	0.4480	0.4452	Ave		0.4320			0.1000	6.8		20.0			
Chloromethane	0.4381 0.3660	0.4105 0.3450	0.3695	0.3628	0.3568	Ave		0.3784			0.1000	8.8		20.0			
Butadiene	0.4750 0.3567	0.3880 0.3448	0.3579	0.3689	0.3585	Ave		0.3786				11.8		20.0			
Vinyl chloride	0.4034 0.3618	0.3564 0.3455	0.3611	0.3673	0.3542	Ave		0.3642			0.1000	5.1		20.0			
Bromomethane	0.3189 0.2394	0.3014 0.2331	0.2511	0.2459	0.2378	Ave		0.2611			0.0500	13.2		20.0			
Chloroethane	0.2653 0.2004	0.2358 0.1929	0.2041	0.2136	0.2028	Ave		0.2164			0.0500	11.8		20.0			
Dichlorofluoromethane	0.6221 0.5010	0.6602 0.4840	0.5300	0.5324	0.5085	Ave		0.5483				12.1		20.0			
Trichlorofluoromethane	0.5400 0.5206	0.5015 0.4974	0.5250	0.5387	0.5229	Ave		0.5209			0.1000	3.2		20.0			
Ethyl ether	0.2629 0.2207	0.2684 0.2121	0.2298	0.2189	0.2112	Ave		0.2320				10.3		20.0			
Acrolein	0.0721 0.0578	0.0624 0.0581	0.0585	0.0528	0.0520	Ave		0.0591				11.4		20.0			
1,1-Dichloroethene	0.4256 0.4465	0.4760 0.4326	0.4467	0.4529	0.4382	Ave		0.4455			0.1000	3.7		20.0			
1,1,2-Trichlorotrifluoroethane	0.2889 0.3017	0.3074 0.2950	0.3118	0.3034	0.2988	Ave		0.3010			0.0500	2.5		20.0			
Acetone	+++++ 0.0899	0.2207 0.0879	0.1133	0.1043	0.0790	Lin1	0.2980	0.0859			0.0100	14.2			0.9930		0.9900
Iodomethane	0.4452 0.4837	0.4990 0.4707	0.4790	0.4849	0.4733	Ave		0.4765				3.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.8647 0.8494	0.8929 0.8377	0.8695	0.8592	0.8489	Ave		0.8603			0.1000	2.1		20.0			
3-Chloro-1-propene	0.5071 0.4812	0.5655 0.4649	0.4848	0.4872	0.4656	Ave		0.4938				7.0		20.0			
Methyl acetate	0.3518 0.2687	0.3253 0.2596	0.2833	0.2870	0.2351	Ave		0.2872			0.1000	13.8		20.0			
Methylene Chloride	+++++ 0.3551	0.5087 0.3460	0.3722	0.3661	0.3432	Ave		0.3819			0.1000	16.5		20.0			
tert-Butyl alcohol	0.0392 0.0274	0.0423 0.0286	0.0310	0.0293	0.0297	Ave		0.0325				17.8		20.0			
Acrylonitrile	0.1247 0.1209	0.1290 0.1185	0.1311	0.1328	0.1040	Ave		0.1230				8.0		20.0			
trans-1,2-Dichloroethene	0.4036 0.4154	0.4336 0.4027	0.4217	0.4177	0.4018	Ave		0.4138			0.1000	2.9		20.0			
Methyl tert-butyl ether	0.7657 0.8810	0.9082 0.7963	0.8549	0.8636	0.8011	Ave		0.8387			0.1000	6.2		20.0			
Hexane	0.4557 0.4598	0.4625 0.4587	0.4712	0.4712	0.4606	Ave		0.4628				1.3		20.0			
1,1-Dichloroethane	0.4989 0.5120	0.5381 0.4948	0.5117	0.5117	0.4871	Ave		0.5077			0.2000	3.3		20.0			
Vinyl acetate	0.5506 0.5173	0.5422 0.5259	0.5306	0.5138	0.4980	Ave		0.5255				3.4		20.0			
cis-1,2-Dichloroethene	0.3270 0.3229	0.3422 0.3123	0.3127	0.3215	0.3026	Ave		0.3202			0.1000	4.0		20.0			
2,2-Dichloropropane	0.3823 0.3748	0.4230 0.3372	0.4161	0.3857	0.3802	Ave		0.3856				7.4		20.0			
2-Butanone (MEK)	0.0461 0.0435	0.0433 0.0460	0.0485	0.0460	0.0410	Ave		0.0449			0.0100	5.5		20.0			
Bromochloromethane	0.2192 0.2379	0.2561 0.2248	0.2365	0.2369	0.2110	Ave		0.2318				6.4		20.0			
Tetrahydrofuran	0.1507 0.1174	0.1375 0.1216	0.1292	0.1259	0.1092	Ave		0.1273				10.7		20.0			
Chloroform	0.5386 0.5187	0.5382 0.5008	0.5083	0.5130	0.4927	Ave		0.5158			0.2000	3.4		20.0			
1,1,1-Trichloroethane	0.4670 0.4932	0.4858 0.4809	0.5013	0.4923	0.4864	Ave		0.4867			0.1000	2.2		20.0			
Cyclohexane	0.4175 0.4533	0.4347 0.4489	0.4615	0.4613	0.4524	Ave		0.4471			0.1000	3.5		20.0			
1,1-Dichloropropene	0.3885 0.4180	0.4226 0.4099	0.4267	0.4123	0.4096	Ave		0.4125				3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.7495 0.4580	0.5040 0.4480	0.4651	0.4534	0.4501	Lin1	0.1188	0.4496			0.1000	8.9			1.0000		0.9900
Isobutyl alcohol	0.0100 0.0121	0.0114 0.0120	0.0144	0.0138	0.0110	Ave		0.0121				12.7		20.0			
Benzene	1.1231 1.0967	1.0917 1.0701	1.1337	1.0960	1.0693	Ave		1.0972			0.5000	2.2		20.0			
1,2-Dichloroethane	0.4131 0.4122	0.4396 0.3903	0.4346	0.4210	0.3932	Ave		0.4148			0.1000	4.5		20.0			
n-Heptane	+++++ 0.2478	0.9427 0.2524	0.3201	0.2642	0.2646	Lin1	0.7022	0.2411				3.5			0.9990		0.9900
Trichloroethene	0.3249 0.3269	0.3287 0.3204	0.3318	0.3237	0.3222	Ave		0.3255			0.1500	1.2		20.0			
Methylcyclohexane	0.4971 0.5612	0.5322 0.5415	0.5580	0.5535	0.5521	Ave		0.5422			0.1000	4.1		20.0			
1,2-Dichloropropane	0.2730 0.2625	0.2736 0.2600	0.2744	0.2561	0.2573	Ave		0.2653			0.1000	3.1		20.0			
Dibromomethane	0.1916 0.2202	0.2238 0.2059	0.2278	0.2158	0.2113	Ave		0.2138				5.7		20.0			
1,4-Dioxane	+++++ 0.0026	0.0027 0.0026	0.0026	0.0028	0.0023	Ave		0.0026				6.9		20.0			
Bromodichloromethane	0.3940 0.4015	0.3994 0.3982	0.4027	0.3937	0.3875	Ave		0.3967			0.1500	1.3		20.0			
2-Chloroethyl vinyl ether	0.2007 0.1881	0.1688 0.2082	0.2103	0.1817	0.2029	Ave		0.1944				7.9		20.0			
cis-1,3-Dichloropropene	0.4332 0.4433	0.4141 0.4563	0.4593	0.4318	0.4478	Ave		0.4408			0.1500	3.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.4300 0.3779	0.4027 0.3919	0.4183	0.3885	0.3806	Ave		0.3986			0.0500	4.9		20.0			
Toluene	1.8561 1.5164	1.6838 1.4813	1.6035	1.5012	1.5169	Ave		1.5942			0.4000	8.5		20.0			
trans-1,3-Dichloropropene	0.5648 0.5654	0.5778 0.5699	0.5847	0.5572	0.5726	Ave		0.5703			0.1000	1.6		20.0			
Ethyl methacrylate	0.5552 0.5249	0.5713 0.5454	0.5681	0.5321	0.5387	Ave		0.5480				3.2		20.0			
1,1,2-Trichloroethane	0.3235 0.3189	0.3473 0.3214	0.3394	0.3206	0.3170	Ave		0.3269			0.1000	3.6		20.0			
Tetrachloroethene	0.4332 0.4439	0.4771 0.4341	0.4530	0.4458	0.4377	Ave		0.4464			0.1500	3.4		20.0			
1,3-Dichloropropane	0.5988 0.5586	0.6185 0.5629	0.6003	0.5547	0.5634	Ave		0.5796				4.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.4180 0.3685	0.4279 0.3957	0.4302	0.3874	0.3778	Ave		0.4008			0.0500	6.2		20.0			
Chlorodibromomethane	0.4061 0.4081	0.4206 0.4086	0.4078	0.4054	0.4033	Ave		0.4086				1.4		20.0			
1,2-Dibromoethane	0.3641 0.3486	0.3722 0.3587	0.3738	0.3528	0.3527	Ave		0.3604				2.8		20.0			
Chlorobenzene	0.9422 0.9869	1.0256 0.9802	1.0178	0.9804	0.9845	Ave		0.9882			0.3000	2.8		20.0			
1,1,1,2-Tetrachloroethane	0.3579 0.3996	0.4110 0.3794	0.3996	0.3974	0.3791	Ave		0.3892				4.6		20.0			
Ethylbenzene	0.5565 0.5462	0.5460 0.5346	0.5652	0.5407	0.5485	Ave		0.5482				1.8		20.0			
m-Xylene & p-Xylene	0.6835 0.6612	0.6601 0.6557	0.6922	0.6636	0.6667	Ave		0.6690				2.0		20.0			
o-Xylene	0.6786 0.6613	0.6778 0.6393	0.6675	0.6600	0.6463	Ave		0.6616				2.2		20.0			
Styrene	1.0109 1.0778	1.0585 1.0792	1.1128	1.0621	1.0793	Ave		1.0687			0.3000	2.9		20.0			
Bromoform	0.3125 0.3176	0.3349 0.3217	0.3203	0.3135	0.3147	Ave		0.3193			0.1000	2.4		20.0			
Isopropylbenzene	1.6316 1.8080	1.7789 1.7180	1.8406	1.7925	1.7803	Ave		1.7643			0.1000	3.9		20.0			
1,1,2,2-Tetrachloroethane	0.9705 0.8929	1.0302 0.9135	0.9618	0.9143	0.8621	Ave		0.9350			0.3000	6.0		20.0			
Bromobenzene	0.8035 0.7798	0.7970 0.7876	0.8123	0.7682	0.7719	Ave		0.7886				2.1		20.0			
1,2,3-Trichloropropane	0.3193 0.3070	0.3453 0.3175	0.3367	0.3227	0.3040	Ave		0.3218				4.6		20.0			
trans-1,4-Dichloro-2-butene	0.3484 0.2983	0.3184 0.3216	0.3319	0.3096	0.3038	Ave		0.3189				5.4		20.0			
N-Propylbenzene	0.8092 0.8718	0.8864 0.8656	0.9067	0.8835	0.8699	Ave		0.8704				3.5		20.0			
2-Chlorotoluene	0.6889 0.7508	0.7421 0.7314	0.7576	0.7466	0.7338	Ave		0.7359				3.1		20.0			
1,3,5-Trimethylbenzene	2.5211 2.6714	2.6313 2.5911	2.6924	2.6603	2.6089	Ave		2.6252				2.2		20.0			
4-Chlorotoluene	0.7070 0.7489	0.7386 0.7565	0.7868	0.7573	0.7476	Ave		0.7489				3.2		20.0			
tert-Butylbenzene	2.2479 2.4186	2.0596 2.3565	2.4190	2.4252	2.3819	Ave		2.3298				5.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.5454 2.7193	2.6570 2.6500	2.7424	2.7417	2.6678	Ave		2.6748				2.6		20.0			
sec-Butylbenzene	2.9674 3.4766	3.0586 3.3521	3.4579	3.4994	3.4024	Ave		3.3163				6.5		20.0			
1,3-Dichlorobenzene	1.4045 1.4891	1.4728 1.4904	1.5336	1.5090	1.4780	Ave		1.4825			0.6000	2.7		20.0			
4-Isopropyltoluene	2.4869 2.9683	2.7389 2.8578	2.9177	2.9441	2.8935	Ave		2.8296				6.0		20.0			
1,4-Dichlorobenzene	1.4549 1.5019	1.5379 1.5041	1.5270	1.5170	1.4843	Ave		1.5039			0.5000	1.8		20.0			
n-Butylbenzene	2.2360 2.6257	2.4563 2.5564	2.5732	2.6305	2.5660	Ave		2.5206				5.5		20.0			
1,2-Dichlorobenzene	1.3000 1.4418	1.4961 1.4253	1.4771	1.4773	1.3920	Ave		1.4299			0.4000	4.7		20.0			
1,2-Dibromo-3-Chloropropane	0.2919 0.2932	0.3283 0.3028	0.3032	0.2991	0.2694	Ave		0.2983			0.0500	5.9		20.0			
1,2,4-Trichlorobenzene	1.0350 1.1037	1.0557 1.0748	1.0442	1.1117	1.0406	Ave		1.0665			0.2000	2.9		20.0			
Hexachlorobutadiene	0.4860 0.5637	0.5220 0.5403	0.5387	0.5647	0.5295	Ave		0.5350				5.0		20.0			
Naphthalene	3.0879 3.3546	3.4381 3.2817	3.2551	3.4236	3.0617	Ave		3.2718				4.6		20.0			
1,2,3-Trichlorobenzene	0.9638 1.0677	1.0585 1.0330	1.0262	1.0691	0.9904	Ave		1.0298				3.9		20.0			
Dibromofluoromethane (Surr)	+++++ 0.2780	0.3184 0.2684	0.2736	0.2745	0.2621	Ave		0.2791				7.2		20.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.3304	0.4294 0.3177	0.3340	0.3273	0.3034	Ave		0.3404				13.2		20.0			
Toluene-d8 (Surr)	+++++ 1.3113	1.4250 1.2642	1.3436	1.2802	1.2814	Ave		1.3176				4.5		20.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4863	0.6047 0.4791	0.5000	0.4684	0.4861	Ave		0.5041				10.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11373 1309314	17416 1683292	207522	425021	860921	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	11004 1050402	19209 1356601	181904	344184	689828	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	11930 1023641	18158 1355830	176186	349982	693180	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	10131 1038352	16677 1358309	177759	348491	684912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	8009 686916	14105 916488	123599	233282	459784	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	6664 575117	11036 758475	100499	202678	392078	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	15623 1437797	30892 1903110	260931	505091	983126	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	13562 1494000	23466 1955643	258487	511074	1010981	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	6602 633406	12559 833797	113124	207663	408429	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	9056 828744	14605 1142503	143999	250620	502247	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	10688 1281165	22274 1700938	219914	429657	847282	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	7256 865765	14386 1159656	153522	287876	577707	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Lin1	+++++ 515725	20652 691536	111533	197869	305654	+++++ 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	11180 1387989	23352 1850683	235810	460012	915064	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	21718 2437300	41785 3293479	428052	815176	1641380	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	12736 1380725	26462 1828013	238666	462217	900260	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	17671 1541894	30444 2041101	278897	544537	909178	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 1019047	23802 1360499	183218	347353	663519	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	9833 787544	19791 1126238	152672	277750	573420	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	31330 3468912	60368 4659474	645349	1259951	2010507	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	10137 1191915	20291 1583461	207607	396341	776885	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	19231 2528103	42498 3130703	420862	819311	1548919	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	11445 1319467	21643 1803399	231973	447067	890686	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	12529 1469228	25178 1945399	251929	485448	941841	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	13828 1484476	25374 2067496	261243	487474	962836	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8213 926586	16014 1228049	153921	304990	585104	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	9601 1075587	19792 1325812	204827	365936	735204	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	2318 249401	4049 361707	47780	87329	158714	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	5506 682560	11986 883682	116442	224773	408024	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	7570 673720	12865 956457	127198	238889	422140	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	13526 1488550	25187 1968856	250264	486695	952636	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	11728 1415267	22733 1890856	246791	467092	940453	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	10485 1300911	20343 1765071	227197	437645	874845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	9756 1199430	19775 1611687	210070	391182	792006	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Lin1	18823 1314362	23584 1761498	228954	430201	870219	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	6282 866113	13280 1179445	176727	326265	530047	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	28207 3147217	51084 4207264	558109	1039847	2067566	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	10376 1182841	20569 1534455	213975	399388	760202	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 711018	44115 992534	157602	250650	511678	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	8160 938084	15382 1259546	163338	307132	622907	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	12485 1610355	24903 2128978	274690	525090	1067480	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	6856 753253	12805 1022265	135073	242989	497546	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	4813 631885	10472 809651	112165	204743	408505	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Ave	+++++ 148668	2566 207134	25855	53630	88935	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	9896 1152161	18688 1565488	198267	373480	749241	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	10080 1079368	15802 1636872	207105	344748	784526	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10879 1271967	19376 1793949	226129	409713	865852	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	21600 2169021	37690 3081464	411915	737172	1471646	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	34442 3186014	53235 4531981	592183	1030620	2226439	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	10481 1187812	18267 1743547	215953	382525	840406	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	10302 1102878	18062 1668694	209826	365282	790748	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6002 670048	10980 983406	125360	220112	465284	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	8039 932700	15084 1328035	167297	306069	642474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	11112 1173543	19554 1722342	221703	380795	826935	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	15514 1548313	27058 2421073	317740	531908	1108950	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	7535 857347	13299 1250275	150589	278352	591945	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6756 732482	11766 1097537	138061	242199	517731	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	17484 2073480	32424 2998944	375883	673120	1444939	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6641 839487	12995 1160832	147586	272850	556447	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10326 1147542	17263 1635540	208719	371241	805112	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	12683 1389180	20870 2006210	255641	455575	978512	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12593 1389320	21430 1955985	246520	453136	948627	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	18759 2264386	33464 3301802	410992	729183	1584146	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	5798 667233	10589 984365	118295	215255	461914	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	30277 3798685	56240 5256323	679767	1230653	2613104	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9911 1056819	19009 1550475	199576	353511	716468	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	8206 922946	14707 1336741	168549	296991	641474	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3261 363306	6371 538847	69858	124764	252680	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	3558 353096	5876 545800	68860	119706	252506	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8264 1031834	16357 1469130	188144	341570	722942	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7035 888571	13694 1241404	157209	288675	609830	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	25746 3161732	48553 4397858	558664	1028530	2168187	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7220 886329	13629 1284024	163259	292782	621292	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	22956 2862526	38005 3999740	501946	937668	1979593	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	25994 3218464	49027 4497885	569044	1060037	2217154	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30304 4114794	56438 5689446	717516	1352965	2827692	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	14343 1762477	27177 2529679	318220	583407	1228334	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	25397 3513217	50539 4850510	605420	1138274	2404745	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	14858 1777555	28377 2552935	316848	586498	1233613	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	22835 3107744	45325 4338883	533937	1017027	2132530	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	13276 1706452	27607 2419111	306502	571182	1156845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2981 346989	6058 513928	62913	115651	223935	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	10570 1306341	19481 1824219	216678	429819	864831	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	4963 667161	9632 917078	111774	218345	440077	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	31534 3970381	63441 5569940	675440	1323648	2544532	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	9843 1263734	19531 1753382	212929	413333	823078	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 797706	14897 1055077	134703	260439	506726	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 948068	20095 1248924	164448	310486	586620	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	+++++ 2755016	45052 3867976	496231	878902	1880831	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	+++++ 1021788	19117 1465723	184651	321546	713420	+++++ 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 19:43 Calibration End Date: 06/21/2018 21:57 Calibration ID: 45627

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-332816/8	U1900002.d
Level 2	STD8260 240-332816/9	U1900003.d
Level 3	STD8260 240-332816/10	U1900004.d
Level 4	ICIS 240-332816/11	U1900005.d
Level 5	STD8260 240-332816/12	U1900006.d
Level 6	STD8260 240-332816/13	U1900007.d
Level 7	STD8260 240-332816/14	U1900008.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	+++++	-16.6						50				
Carbon tetrachloride	13.8						50					
n-Heptane	+++++	-0.2						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3142	0.1000	0.0145	0.0200	-27.3	30.0
Chloromethane	Ave	0.3784	0.3164	0.1000	0.0167	0.0200	-16.4	30.0
Butadiene	Ave	0.3786	0.3078		0.0163	0.0200	-18.7	30.0
Vinyl chloride	Ave	0.3642	0.3401	0.1000	0.0187	0.0200	-6.6	30.0
Bromomethane	Ave	0.2611	0.2317	0.0500	0.0177	0.0200	-11.3	30.0
Chloroethane	Ave	0.2164	0.1923	0.0500	0.0178	0.0200	-11.2	30.0
Dichlorofluoromethane	Ave	0.5483	0.5253		0.0192	0.0200	-4.2	30.0
Trichlorofluoromethane	Ave	0.5209	0.5127	0.1000	0.0197	0.0200	-1.6	30.0
Ethyl ether	Ave	0.2320	0.2306		0.0199	0.0200	-0.6	30.0
Acrolein	Ave	0.0591	0.0353		0.0598	0.100	-40.2	50.0
1,1-Dichloroethene	Ave	0.4455	0.4510	0.1000	0.0202	0.0200	1.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.3063	0.0500	0.0204	0.0200	1.8	30.0
Acetone	Lin1		0.1038	0.0100	0.0449	0.0400	12.1	50.0
Iodomethane	Ave	0.4765	0.4866		0.0204	0.0200	2.1	30.0
Carbon disulfide	Ave	0.8603	0.8957	0.1000	0.0208	0.0200	4.1	30.0
3-Chloro-1-propene	Ave	0.4938	0.4834		0.0196	0.0200	-2.1	30.0
Methyl acetate	Ave	0.2872	0.2701	0.1000	0.0376	0.0400	-6.0	30.0
Methylene Chloride	Ave	0.3819	0.3606	0.1000	0.0189	0.0200	-5.6	50.0
tert-Butyl alcohol	Ave	0.0325	0.0347		0.213	0.200	6.7	50.0
Acrylonitrile	Ave	0.1230	0.1277		0.208	0.200	3.8	30.0
trans-1,2-Dichloroethene	Ave	0.4138	0.4207	0.1000	0.0203	0.0200	1.7	30.0
Methyl tert-butyl ether	Ave	0.8387	0.8386	0.1000	0.0200	0.0200	-0.0	30.0
Hexane	Ave	0.4628	0.4670		0.0202	0.0200	0.9	30.0
1,1-Dichloroethane	Ave	0.5077	0.5027	0.2000	0.0198	0.0200	-1.0	30.0
Vinyl acetate	Ave	0.5255	0.6199		0.0236	0.0200	18.0	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3188	0.1000	0.0199	0.0200	-0.4	30.0
2,2-Dichloropropane	Ave	0.3856	0.3848		0.0200	0.0200	-0.2	30.0
2-Butanone (MEK)	Ave	0.0449	0.0516	0.0100	0.0460	0.0400	14.9	30.0
Bromochloromethane	Ave	0.2318	0.2330		0.0201	0.0200	0.5	30.0
Tetrahydrofuran	Ave	0.1273	0.1312		0.0412	0.0400	3.0	30.0
Chloroform	Ave	0.5158	0.5012	0.2000	0.0194	0.0200	-2.8	30.0
1,1,1-Trichloroethane	Ave	0.4867	0.4883	0.1000	0.0201	0.0200	0.3	30.0
Cyclohexane	Ave	0.4471	0.4652	0.1000	0.0208	0.0200	4.0	30.0
1,1-Dichloropropene	Ave	0.4125	0.4156		0.0201	0.0200	0.7	30.0
Carbon tetrachloride	Lin1		0.4501	0.1000	0.0198	0.0200	-1.2	30.0
Isobutyl alcohol	Ave	0.0121	0.0147		0.610	0.500	21.9	30.0
1,2-Dichloroethane	Ave	0.4148	0.4204	0.1000	0.0203	0.0200	1.3	30.0
Benzene	Ave	1.097	1.090	0.5000	0.0199	0.0200	-0.7	30.0
n-Heptane	Lin1		0.2796		0.0203	0.0200	1.4	30.0
Trichloroethene	Ave	0.3255	0.3258	0.1500	0.0200	0.0200	0.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5372	0.1000	0.0198	0.0200	-0.9	30.0
1,2-Dichloropropane	Ave	0.2653	0.2695	0.1000	0.0203	0.0200	1.6	30.0
Dibromomethane	Ave	0.2138	0.2122		0.0199	0.0200	-0.7	30.0
1,4-Dioxane	Ave	0.0026	0.0032		0.484	0.400	20.9	50.0
Bromodichloromethane	Ave	0.3967	0.3939	0.1500	0.0199	0.0200	-0.7	30.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.2147		0.0221	0.0200	10.5	30.0
cis-1,3-Dichloropropene	Ave	0.4408	0.4692	0.1500	0.0213	0.0200	6.4	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.4153	0.0500	0.0417	0.0400	4.2	30.0
Toluene	Ave	1.594	1.517	0.4000	0.0190	0.0200	-4.8	30.0
trans-1,3-Dichloropropene	Ave	0.5703	0.5684	0.1000	0.0199	0.0200	-0.3	30.0
Ethyl methacrylate	Ave	0.5480	0.5501		0.0201	0.0200	0.4	30.0
1,1,2-Trichloroethane	Ave	0.3269	0.3278	0.1000	0.0201	0.0200	0.3	30.0
Tetrachloroethene	Ave	0.4464	0.4366	0.1500	0.0196	0.0200	-2.2	30.0
1,3-Dichloropropane	Ave	0.5796	0.5673		0.0196	0.0200	-2.1	30.0
2-Hexanone	Ave	0.4008	0.4182	0.0500	0.0417	0.0400	4.3	30.0
Chlorodibromomethane	Ave	0.4086	0.4062		0.0199	0.0200	-0.6	30.0
1,2-Dibromoethane	Ave	0.3604	0.3558		0.0197	0.0200	-1.3	30.0
Chlorobenzene	Ave	0.9882	0.9877	0.3000	0.0200	0.0200	-0.0	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3822		0.0196	0.0200	-1.8	30.0
Ethylbenzene	Ave	0.5482	0.5311		0.0194	0.0200	-3.1	30.0
m-Xylene & p-Xylene	Ave	0.6690	0.6556		0.0196	0.0200	-2.0	30.0
o-Xylene	Ave	0.6616	0.6471		0.0196	0.0200	-2.2	30.0
Styrene	Ave	1.069	1.057	0.3000	0.0198	0.0200	-1.0	30.0
Bromoform	Ave	0.3193	0.3193	0.1000	0.0200	0.0200	0.0	30.0
Isopropylbenzene	Ave	1.764	1.760	0.1000	0.0199	0.0200	-0.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.9312	0.3000	0.0199	0.0200	-0.4	30.0
Bromobenzene	Ave	0.7886	0.7780		0.0197	0.0200	-1.3	30.0
1,2,3-Trichloropropane	Ave	0.3218	0.3215		0.0200	0.0200	-0.1	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.3374		0.0212	0.0200	5.8	30.0
N-Propylbenzene	Ave	0.8704	0.8701		0.0200	0.0200	-0.0	30.0
2-Chlorotoluene	Ave	0.7359	0.7377		0.0200	0.0200	0.2	30.0
1,3,5-Trimethylbenzene	Ave	2.625	2.598		0.0198	0.0200	-1.0	30.0
4-Chlorotoluene	Ave	0.7489	0.7524		0.0201	0.0200	0.5	30.0
tert-Butylbenzene	Ave	2.330	2.365		0.0203	0.0200	1.5	30.0
1,2,4-Trimethylbenzene	Ave	2.675	2.658		0.0199	0.0200	-0.6	30.0
sec-Butylbenzene	Ave	3.316	3.407		0.0205	0.0200	2.7	30.0
1,3-Dichlorobenzene	Ave	1.482	1.492	0.6000	0.0201	0.0200	0.7	30.0
4-Isopropyltoluene	Ave	2.830	2.896		0.0205	0.0200	2.3	30.0
1,4-Dichlorobenzene	Ave	1.504	1.507	0.5000	0.0200	0.0200	0.2	30.0
n-Butylbenzene	Ave	2.521	2.517		0.0200	0.0200	-0.2	30.0
1,2-Dichlorobenzene	Ave	1.430	1.442	0.4000	0.0202	0.0200	0.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332816/15 Calibration Date: 06/21/2018 22:19

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900009.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2944	0.0500	0.0197	0.0200	-1.3	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.064	0.2000	0.0199	0.0200	-0.3	50.0
Hexachlorobutadiene	Ave	0.5350	0.5416		0.0202	0.0200	1.2	30.0
Naphthalene	Ave	3.272	3.256		0.0199	0.0200	-0.5	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.043		0.0202	0.0200	1.2	30.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2762		0.0198	0.0200	-1.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3250		0.0191	0.0200	-4.5	30.0
Toluene-d8 (Surr)	Ave	1.318	1.270		0.0193	0.0200	-3.6	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4918		0.0195	0.0200	-2.4	30.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-332816/18	U1900012.d
Level 2	STDA9 240-332816/19	U1900013.d
Level 3	STDA9 240-332816/20	U1900014.d
Level 4	STDA9 240-332816/21	U1900015.d
Level 5	STDA9 240-332816/22	U1900016.d
Level 6	STDA9 240-332816/23	U1900017.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0440 0.0490	0.0382	0.0539	0.0578	0.0499	Ave		0.0488				14.3		20.0			
Diisopropyl ether	+++++ 0.2346	0.2654	0.2530	0.2431	0.2420	Ave		0.2476				4.8		20.0			
2-Chloro-1,3-butadiene	0.6649 0.4575	0.5562	0.5210	0.4938	0.4852	Ave		0.5298				14.0		20.0			
Ethyl tert-butyl ether	1.1766 0.8711	1.0249	0.9298	0.9051	0.9005	Ave		0.9680				11.9		20.0			
Ethyl acetate	+++++ 0.3795	0.3822	0.3598	0.3646	0.3359	Ave		0.3644				5.1		20.0			
Propionitrile	0.0683 0.0563	0.0527	0.0549	0.0641	0.0564	Ave		0.0588				10.3		20.0			
Methacrylonitrile	0.3193 0.2305	0.2666	0.2399	0.2448	0.2288	Ave		0.2550				13.5		20.0			
Tert-amyl methyl ether	1.2913 0.9508	1.0756	0.9912	0.9813	0.9297	Ave		1.0366				13.0		20.0			
n-Butanol	0.0177 0.0125	0.0153	0.0138	0.0141	0.0132	Ave		0.0144				12.7		20.0			
Ethyl acrylate	+++++ 0.4717	0.4821	0.4229	0.4249	0.4196	Ave		0.4442				6.8		20.0			
Methyl methacrylate	+++++ 0.3139	0.3205	0.2871	0.2902	0.2880	Ave		0.2999				5.3		20.0			
2-Nitropropane	+++++ 0.1233	0.1466	0.1212	0.1199	0.1136	Ave		0.1249				10.1		20.0			
n-Butyl acetate	+++++ 0.7737	0.9218	0.7852	0.7680	0.7497	Ave		0.7997				8.7		20.0			
1-Chlorohexane	+++++ 0.4618	0.5849	0.5166	0.4819	0.4772	Ave		0.5045				9.8		20.0			
Cyclohexanone	+++++ 0.0172	0.0260	0.0200	0.0206	0.0199	Ave		0.0207				15.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	+++++ 0.3932	0.5022	0.4769	0.4689	0.4958	Ave		0.4674				9.3		20.0			
1,2,3-Trimethylbenzene	3.6871 2.8072	2.9735	2.8013	2.7247	2.7636	Ave		2.9596				12.4		20.0			
Benzyl chloride	2.5839 1.9948	2.1464	1.9654	1.9389	1.8837	Ave		2.0855				12.4		20.0			
1,3,5-Trichlorobenzene	1.5335 1.2076	1.3448	1.2369	1.2016	1.2228	Ave		1.2912				10.1		20.0			
2-Methylnaphthalene	2.2289 2.2859	2.1977	2.1142	2.2206	2.2097	Ave		2.2095				2.5		20.0			
1-Chloro-1-fluoroethane TIC	0.4705 0.3032	0.3951	0.3442	0.3263	0.3242	Ave		0.3606				17.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-332816/18	U1900012.d
Level 2	STDA9 240-332816/19	U1900013.d
Level 3	STDA9 240-332816/20	U1900014.d
Level 4	STDA9 240-332816/21	U1900015.d
Level 5	STDA9 240-332816/22	U1900016.d
Level 6	STDA9 240-332816/23	U1900017.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	10589 1885698	16980	238952	520620	894284	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	+++++ 902572	11799	112275	218833	433423	+++++ 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	16009 1760461	24730	231145	444481	868984	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	28329 3351573	45566	412550	814793	1612736	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	+++++ 2920152	33985	319268	656361	1203167	+++++ 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	16451 2165015	23418	243383	576982	1010470	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	76875 8868656	118534	1064407	2204121	4097922	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	31090 3658334	47819	439804	883349	1664934	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	10631 1201712	16995	153314	317991	592852	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	+++++ 1814764	21432	187651	382505	751449	+++++ 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	+++++ 2415483	28501	254726	522427	1031629	+++++ 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	+++++ 949112	13034	107594	215930	406897	+++++ 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	+++++ 2181276	28026	238764	480824	930224	+++++ 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	+++++ 1301788	17783	157066	301689	592169	+++++ 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	+++++ 485781	7903	60794	128832	246970	+++++ 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	+++++ 1216448	17821	169885	341568	713940	+++++ 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332816

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/21/2018 23:25 Calibration End Date: 06/22/2018 01:16 Calibration ID: 45631

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	36176 4341951	52754	498949	992308	1989854	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	25352 3085323	38080	350054	706139	1356310	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	15046 1867833	23859	220314	437598	880409	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	43738 7071438	77980	753123	1617442	3181999	1.00 160	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	11329 1166527	17564	152718	293743	580550	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332816/24 Calibration Date: 06/22/2018 01:38

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900018.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2791	0.2742		0.0196	0.0200	-1.8	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3410		0.0200	0.0200	0.2	30.0
Toluene-d8 (Surr)	Ave	1.318	1.231		0.0187	0.0200	-6.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4710		0.0187	0.0200	-6.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332816/24 Calibration Date: 06/22/2018 01:38

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900018.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0480		0.197	0.200	-1.7	30.0
Diisopropyl ether	Ave	0.2476	0.2421		0.0196	0.0200	-2.2	30.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4734		0.0179	0.0200	-10.6	30.0
Ethyl tert-butyl ether	Ave	0.9680	0.8578		0.0177	0.0200	-11.4	30.0
Ethyl acetate	Ave	0.3644	0.4159		0.0457	0.0400	14.1	50.0
Propionitrile	Ave	0.0588	0.0594		0.202	0.200	1.0	30.0
Methacrylonitrile	Ave	0.2550	0.2470		0.194	0.200	-3.2	30.0
Tert-amyl methyl ether	Ave	1.037	0.9419		0.0182	0.0200	-9.1	30.0
n-Butanol	Ave	0.0144	0.0118		0.408	0.500	-18.4	30.0
Ethyl acrylate	Ave	0.4442	0.4794		0.0216	0.0200	7.9	30.0
Methyl methacrylate	Ave	0.2999	0.3252		0.0434	0.0400	8.4	30.0
2-Nitropropane	Ave	0.1249	0.1302		0.0417	0.0400	4.2	30.0
n-Butyl acetate	Ave	0.7997	0.7775		0.0194	0.0200	-2.8	30.0
1-Chlorohexane	Ave	0.5045	0.4899		0.0194	0.0200	-2.9	30.0
Cyclohexanone	Ave	0.0207	0.0174		0.168	0.200	-16.0	30.0
Pentachloroethane	Ave	0.4674	0.2815		0.0241	0.0400	-39.8*	30.0
1,2,3-Trimethylbenzene	Ave	2.960	2.703		0.0183	0.0200	-8.7	30.0
Benzyl chloride	Ave	2.086	1.809		0.0173	0.0200	-13.3	30.0
1,3,5-Trichlorobenzene	Ave	1.291	1.144		0.0177	0.0200	-11.4	30.0
2-Methylnaphthalene	Ave	2.209	1.976		0.0358	0.0400	-10.6	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: bfb015.d BFB Injection Date: 07/02/2018

Instrument ID: A3UX19 BFB Injection Time: 14:52

Analysis Batch No.: 334440

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.5	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.9	(1.0) 1
174	50.0 - 120.00 % of mass 95	85.5	
175	5.0 - 9.0 % of mass 174	6.6	(7.7) 1
176	95.0 - 101.0 % of mass 174	85.3	(99.7) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-334440/2	U1900336.d	07/02/2018	15:20
	CCVIS 240-334440/3	U1900337.d	07/02/2018	15:42
	LCS 240-334440/4	U1900338.d	07/02/2018	16:04
	MB 240-334440/7	U1900341.d	07/02/2018	17:11
TB-062718	240-97836-1	U1900363.d	07/03/2018	01:22
MSA-MW-51D-062718	240-97836-2	U1900364.d	07/03/2018	01:44

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334440/2 Calibration Date: 07/02/2018 15:20

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900336.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0331		0.135	0.200	-32.3*	20.0
Diisopropyl ether	Ave	0.2476	0.2465		0.0199	0.0200	-0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4746		0.0179	0.0200	-10.4	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8564		0.0177	0.0200	-11.5	20.0
Ethyl acetate	Ave	0.3644	0.2812		0.0309	0.0400	-22.8	50.0
Propionitrile	Ave	0.0588	0.0461		0.157	0.200	-21.5*	20.0
Methacrylonitrile	Ave	0.2550	0.2003		0.157	0.200	-21.4*	20.0
Tert-amyl methyl ether	Ave	1.037	0.8894		0.0172	0.0200	-14.2	20.0
n-Butanol	Ave	0.0144	0.0120		0.414	0.500	-17.1	20.0
Ethyl acrylate	Ave	0.4442	0.3142		0.0141	0.0200	-29.3*	20.0
Methyl methacrylate	Ave	0.2999	0.2198		0.0293	0.0400	-26.7*	20.0
2-Nitropropane	Ave	0.1249	0.0848		0.0272	0.0400	-32.1*	20.0
n-Butyl acetate	Ave	0.7997	0.6557		0.0164	0.0200	-18.0	20.0
1-Chlorohexane	Ave	0.5045	0.5001		0.0198	0.0200	-0.9	20.0
Cyclohexanone	Ave	0.0207	0.0166		0.160	0.200	-20.2*	20.0
Pentachloroethane	Ave	0.4674	0.4474		0.0383	0.0400	-4.3	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.620		0.0177	0.0200	-11.5	20.0
Benzyl chloride	Ave	2.086	1.758		0.0169	0.0200	-15.7	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.241		0.0192	0.0200	-3.9	20.0
2-Methylnaphthalene	Ave	2.209	1.996		0.0361	0.0400	-9.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.4330	0.1000	0.0200	0.0200	0.2	20.0
Chloromethane	Ave	0.3784	0.3552	0.1000	0.0188	0.0200	-6.1	20.0
Butadiene	Ave	0.3786	0.3556		0.0188	0.0200	-6.1	20.0
Vinyl chloride	Ave	0.3642	0.3604	0.1000	0.0198	0.0200	-1.1	20.0
Bromomethane	Ave	0.2611	0.2523	0.0500	0.0193	0.0200	-3.4	20.0
Chloroethane	Ave	0.2164	0.2158	0.0500	0.0199	0.0200	-0.3	20.0
Dichlorofluoromethane	Ave	0.5483	0.5176		0.0189	0.0200	-5.6	20.0
Trichlorofluoromethane	Ave	0.5209	0.5239	0.1000	0.0201	0.0200	0.6	20.0
Ethyl ether	Ave	0.2320	0.2140		0.0185	0.0200	-7.7	20.0
Acrolein	Ave	0.0591	0.0459		0.0776	0.100	-22.4	50.0
1,1-Dichloroethene	Ave	0.4455	0.4207	0.1000	0.0189	0.0200	-5.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2861	0.0500	0.0190	0.0200	-5.0	20.0
Acetone	Lin1		0.1106	0.0100	0.0480	0.0400	20.0	50.0
Iodomethane	Ave	0.4765	0.4541		0.0191	0.0200	-4.7	20.0
Carbon disulfide	Ave	0.8603	0.8009	0.1000	0.0186	0.0200	-6.9	20.0
3-Chloro-1-propene	Ave	0.4938	0.4330		0.0175	0.0200	-12.3	20.0
Methyl acetate	Ave	0.2872	0.2793	0.1000	0.0389	0.0400	-2.8	20.0
Methylene Chloride	Ave	0.3819	0.3392	0.1000	0.0178	0.0200	-11.2	50.0
tert-Butyl alcohol	Ave	0.0325	0.0380		0.234	0.200	16.9	50.0
Acrylonitrile	Ave	0.1230	0.1298		0.211	0.200	5.5	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8176	0.1000	0.0195	0.0200	-2.5	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.3888	0.1000	0.0188	0.0200	-6.0	20.0
Hexane	Ave	0.4628	0.4006		0.0173	0.0200	-13.5	20.0
1,1-Dichloroethane	Ave	0.5077	0.4811	0.2000	0.0189	0.0200	-5.3	20.0
Vinyl acetate	Ave	0.5255	0.4376		0.0167	0.0200	-16.7	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3131	0.1000	0.0196	0.0200	-2.2	20.0
2,2-Dichloropropane	Ave	0.3856	0.3532		0.0183	0.0200	-8.4	20.0
2-Butanone (MEK)	Ave	0.0449	0.0425	0.0100	0.0379	0.0400	-5.4	20.0
Bromochloromethane	Ave	0.2318	0.2353		0.0203	0.0200	1.5	20.0
Tetrahydrofuran	Ave	0.1273	0.1128		0.0354	0.0400	-11.4	20.0
Chloroform	Ave	0.5158	0.4953	0.2000	0.0192	0.0200	-4.0	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4453	0.1000	0.0183	0.0200	-8.5	20.0
Cyclohexane	Ave	0.4471	0.4302	0.1000	0.0192	0.0200	-3.8	20.0
1,1-Dichloropropene	Ave	0.4125	0.3798		0.0184	0.0200	-7.9	20.0
Carbon tetrachloride	Lin1		0.4066	0.1000	0.0178	0.0200	-10.9	20.0
Isobutyl alcohol	Ave	0.0121	0.0132		0.549	0.500	9.7	20.0
1,2-Dichloroethane	Ave	0.4148	0.3796	0.1000	0.0183	0.0200	-8.5	20.0
Benzene	Ave	1.097	1.020	0.5000	0.0186	0.0200	-7.0	20.0
n-Heptane	Lin1		0.2323		0.0164	0.0200	-18.2	20.0
Trichloroethene	Ave	0.3255	0.2989	0.1500	0.0184	0.0200	-8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.5189	0.1000	0.0191	0.0200	-4.3	20.0
1,2-Dichloropropane	Ave	0.2653	0.2267	0.1000	0.0171	0.0200	-14.6	20.0
Dibromomethane	Ave	0.2138	0.1966		0.0184	0.0200	-8.0	20.0
1,4-Dioxane	Ave	0.0026	0.0029		0.448	0.400	11.9	50.0
Bromodichloromethane	Ave	0.3967	0.3447	0.1500	0.0174	0.0200	-13.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1438		0.0296	0.0400	-26.0*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3498	0.1500	0.0159	0.0200	-20.7*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3139	0.0500	0.0315	0.0400	-21.2*	20.0
Toluene	Ave	1.594	1.449	0.4000	0.0182	0.0200	-9.1	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4589	0.1000	0.0161	0.0200	-19.5	20.0
Ethyl methacrylate	Ave	0.5480	0.4593		0.0168	0.0200	-16.2	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.2909	0.1000	0.0178	0.0200	-11.0	20.0
Tetrachloroethene	Ave	0.4464	0.4072	0.1500	0.0182	0.0200	-8.8	20.0
1,3-Dichloropropane	Ave	0.5796	0.4938		0.0170	0.0200	-14.8	20.0
2-Hexanone	Ave	0.4008	0.3220	0.0500	0.0321	0.0400	-19.7	20.0
Chlorodibromomethane	Ave	0.4086	0.3572		0.0175	0.0200	-12.6	20.0
1,2-Dibromoethane	Ave	0.3604	0.3078		0.0171	0.0200	-14.6	20.0
Chlorobenzene	Ave	0.9882	0.9168	0.3000	0.0186	0.0200	-7.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3861		0.0198	0.0200	-0.8	20.0
Ethylbenzene	Ave	0.5482	0.5202		0.0190	0.0200	-5.1	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6297		0.0188	0.0200	-5.9	20.0
o-Xylene	Ave	0.6616	0.6468		0.0196	0.0200	-2.2	20.0
Styrene	Ave	1.069	1.011	0.3000	0.0189	0.0200	-5.4	20.0
Bromoform	Ave	0.3193	0.2722	0.1000	0.0170	0.0200	-14.8	20.0
Isopropylbenzene	Ave	1.764	1.764	0.1000	0.0200	0.0200	-0.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8381	0.3000	0.0179	0.0200	-10.4	20.0
Bromobenzene	Ave	0.7886	0.6972		0.0177	0.0200	-11.6	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2876		0.0179	0.0200	-10.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2372		0.0149	0.0200	-25.6*	20.0
N-Propylbenzene	Ave	0.8704	0.8306		0.0191	0.0200	-4.6	20.0
2-Chlorotoluene	Ave	0.7359	0.7025		0.0191	0.0200	-4.5	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.497		0.0190	0.0200	-4.9	20.0
4-Chlorotoluene	Ave	0.7489	0.6947		0.0186	0.0200	-7.2	20.0
tert-Butylbenzene	Ave	2.330	2.228		0.0191	0.0200	-4.4	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.593		0.0194	0.0200	-3.1	20.0
sec-Butylbenzene	Ave	3.316	3.330		0.0201	0.0200	0.4	20.0
1,3-Dichlorobenzene	Ave	1.482	1.421	0.6000	0.0192	0.0200	-4.2	20.0
4-Isopropyltoluene	Ave	2.830	2.863		0.0202	0.0200	1.2	20.0
1,4-Dichlorobenzene	Ave	1.504	1.427	0.5000	0.0190	0.0200	-5.1	20.0
n-Butylbenzene	Ave	2.521	2.633		0.0209	0.0200	4.5	20.0
1,2-Dichlorobenzene	Ave	1.430	1.391	0.4000	0.0195	0.0200	-2.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334440/3 Calibration Date: 07/02/2018 15:42

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900337.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2614	0.0500	0.0175	0.0200	-12.4	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.078	0.2000	0.0202	0.0200	1.1	50.0
Hexachlorobutadiene	Ave	0.5350	0.5577		0.0209	0.0200	4.3	20.0
Naphthalene	Ave	3.272	3.216		0.0197	0.0200	-1.7	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.047		0.0203	0.0200	1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2845		0.0204	0.0200	1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3317		0.0195	0.0200	-2.6	20.0
Toluene-d8 (Surr)	Ave	1.318	1.304		0.0198	0.0200	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4658		0.0185	0.0200	-7.6	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: bfb016.d BFB Injection Date: 07/03/2018

Instrument ID: A3UX19 BFB Injection Time: 14:47

Analysis Batch No.: 334645

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.6	
75	30.0 - 60.0 % of mass 95	51.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	50.0 - 120.00 % of mass 95	92.3	
175	5.0 - 9.0 % of mass 174	6.9	(7.5) 1
176	95.0 - 101.0 % of mass 174	88.1	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-334645/2	U1900364.d	07/03/2018	15:13
	CCVIS 240-334645/3	U1900365.d	07/03/2018	15:36
	LCS 240-334645/4	U1900366.d	07/03/2018	15:58
	MB 240-334645/7	U1900369.d	07/03/2018	17:05
MSA-MW-51I-062718	240-97836-3	U1900391.d	07/04/2018	01:15
MSA-MW-51S-062718	240-97836-4	U1900392.d	07/04/2018	01:38
MSA-MW-47S-062718	240-97836-5	U1900393.d	07/04/2018	02:00

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334645/2 Calibration Date: 07/03/2018 15:13

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900364.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0411		0.168	0.200	-15.8	20.0
Diisopropyl ether	Ave	0.2476	0.2490		0.0201	0.0200	0.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4970		0.0188	0.0200	-6.2	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8918		0.0184	0.0200	-7.9	20.0
Ethyl acetate	Ave	0.3644	0.2608		0.0286	0.0400	-28.4	50.0
Propionitrile	Ave	0.0588	0.0526		0.179	0.200	-10.5	20.0
Methacrylonitrile	Ave	0.2550	0.1945		0.153	0.200	-23.7*	20.0
Tert-amyl methyl ether	Ave	1.037	0.9299		0.0179	0.0200	-10.3	20.0
n-Butanol	Ave	0.0144	0.0135		0.468	0.500	-6.3	20.0
Ethyl acrylate	Ave	0.4442	0.2788		0.0126	0.0200	-37.2*	20.0
Methyl methacrylate	Ave	0.2999	0.2033		0.0271	0.0400	-32.2*	20.0
2-Nitropropane	Ave	0.1249	0.0807		0.0258	0.0400	-35.4*	20.0
n-Butyl acetate	Ave	0.7997	0.6141		0.0154	0.0200	-23.2*	20.0
1-Chlorohexane	Ave	0.5045	0.4812		0.0191	0.0200	-4.6	20.0
Cyclohexanone	Ave	0.0207	0.0242		0.233	0.200	16.7	20.0
Pentachloroethane	Ave	0.4674	0.4980		0.0426	0.0400	6.5	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.911		0.0197	0.0200	-1.6	20.0
Benzyl chloride	Ave	2.086	1.747		0.0168	0.0200	-16.2	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.419		0.0220	0.0200	9.9	20.0
2-Methylnaphthalene	Ave	2.209	2.322		0.0420	0.0400	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3914	0.1000	0.0181	0.0200	-9.4	20.0
Chloromethane	Ave	0.3784	0.3394	0.1000	0.0179	0.0200	-10.3	20.0
Butadiene	Ave	0.3786	0.3286		0.0174	0.0200	-13.2	20.0
Vinyl chloride	Ave	0.3642	0.3381	0.1000	0.0186	0.0200	-7.2	20.0
Bromomethane	Ave	0.2611	0.2544	0.0500	0.0195	0.0200	-2.5	20.0
Chloroethane	Ave	0.2164	0.2099	0.0500	0.0194	0.0200	-3.0	20.0
Dichlorofluoromethane	Ave	0.5483	0.5231		0.0191	0.0200	-4.6	20.0
Trichlorofluoromethane	Ave	0.5209	0.4920	0.1000	0.0189	0.0200	-5.6	20.0
Ethyl ether	Ave	0.2320	0.2243		0.0193	0.0200	-3.3	20.0
Acrolein	Ave	0.0591	0.0613		0.104	0.100	3.7	50.0
1,1-Dichloroethene	Ave	0.4455	0.4040	0.1000	0.0181	0.0200	-9.3	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2651	0.0500	0.0176	0.0200	-11.9	20.0
Acetone	Lin1		0.1204	0.0100	0.0526	0.0400	31.4	50.0
Iodomethane	Ave	0.4765	0.4686		0.0197	0.0200	-1.7	20.0
Carbon disulfide	Ave	0.8603	0.7753	0.1000	0.0180	0.0200	-9.9	20.0
3-Chloro-1-propene	Ave	0.4938	0.4365		0.0177	0.0200	-11.6	20.0
Methyl acetate	Ave	0.2872	0.2668	0.1000	0.0372	0.0400	-7.1	20.0
Methylene Chloride	Ave	0.3819	0.3645	0.1000	0.0191	0.0200	-4.5	50.0
tert-Butyl alcohol	Ave	0.0325	0.0486		0.299	0.200	49.7	50.0
Acrylonitrile	Ave	0.1230	0.1321		0.215	0.200	7.4	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.4004	0.1000	0.0194	0.0200	-3.2	20.0
Methyl tert-butyl ether	Ave	0.8387	0.8553	0.1000	0.0204	0.0200	2.0	20.0
Hexane	Ave	0.4628	0.3700		0.0160	0.0200	-20.1*	20.0
1,1-Dichloroethane	Ave	0.5077	0.4980	0.2000	0.0196	0.0200	-1.9	20.0
Vinyl acetate	Ave	0.5255	0.5227		0.0199	0.0200	-0.5	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.3286	0.1000	0.0205	0.0200	2.6	20.0
2,2-Dichloropropane	Ave	0.3856	0.3781		0.0196	0.0200	-1.9	20.0
2-Butanone (MEK)	Ave	0.0449	0.0413	0.0100	0.0368	0.0400	-8.0	20.0
Bromochloromethane	Ave	0.2318	0.2477		0.0214	0.0200	6.9	20.0
Tetrahydrofuran	Ave	0.1273	0.1102		0.0346	0.0400	-13.5	20.0
Chloroform	Ave	0.5158	0.5276	0.2000	0.0205	0.0200	2.3	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4531	0.1000	0.0186	0.0200	-6.9	20.0
Cyclohexane	Ave	0.4471	0.4024	0.1000	0.0180	0.0200	-10.0	20.0
1,1-Dichloropropene	Ave	0.4125	0.3736		0.0181	0.0200	-9.4	20.0
Carbon tetrachloride	Lin1		0.4007	0.1000	0.0176	0.0200	-12.2	20.0
Isobutyl alcohol	Ave	0.0121	0.0148		0.612	0.500	22.4*	20.0
Benzene	Ave	1.097	1.031	0.5000	0.0188	0.0200	-6.1	20.0
1,2-Dichloroethane	Ave	0.4148	0.3965	0.1000	0.0191	0.0200	-4.4	20.0
n-Heptane	Lin1		0.2166		0.0151	0.0200	-24.7*	20.0
Trichloroethene	Ave	0.3255	0.2894	0.1500	0.0178	0.0200	-11.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.4919	0.1000	0.0181	0.0200	-9.3	20.0
1,2-Dichloropropane	Ave	0.2653	0.2318	0.1000	0.0175	0.0200	-12.6	20.0
Dibromomethane	Ave	0.2138	0.2007		0.0188	0.0200	-6.1	20.0
1,4-Dioxane	Ave	0.0026	0.0033		0.510	0.400	27.5	50.0
Bromodichloromethane	Ave	0.3967	0.3531	0.1500	0.0178	0.0200	-11.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1249		0.0257	0.0400	-35.8*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3370	0.1500	0.0153	0.0200	-23.6*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3017	0.0500	0.0303	0.0400	-24.3*	20.0
Toluene	Ave	1.594	1.479	0.4000	0.0186	0.0200	-7.2	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4552	0.1000	0.0160	0.0200	-20.2*	20.0
Ethyl methacrylate	Ave	0.5480	0.4468		0.0163	0.0200	-18.5	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.3006	0.1000	0.0184	0.0200	-8.0	20.0
Tetrachloroethene	Ave	0.4464	0.4089	0.1500	0.0183	0.0200	-8.4	20.0
1,3-Dichloropropane	Ave	0.5796	0.4984		0.0172	0.0200	-14.0	20.0
2-Hexanone	Ave	0.4008	0.3037	0.0500	0.0303	0.0400	-24.2*	20.0
Chlorodibromomethane	Ave	0.4086	0.3740		0.0183	0.0200	-8.5	20.0
1,2-Dibromoethane	Ave	0.3604	0.3102		0.0172	0.0200	-13.9	20.0
Chlorobenzene	Ave	0.9882	0.9337	0.3000	0.0189	0.0200	-5.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.4208		0.0216	0.0200	8.1	20.0
Ethylbenzene	Ave	0.5482	0.5243		0.0191	0.0200	-4.4	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6379		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.6616	0.6847		0.0207	0.0200	3.5	20.0
Styrene	Ave	1.069	1.019	0.3000	0.0191	0.0200	-4.6	20.0
Bromoform	Ave	0.3193	0.2719	0.1000	0.0170	0.0200	-14.9	20.0
Isopropylbenzene	Ave	1.764	1.824	0.1000	0.0207	0.0200	3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8621	0.3000	0.0184	0.0200	-7.8	20.0
Bromobenzene	Ave	0.7886	0.7164		0.0182	0.0200	-9.2	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2874		0.0179	0.0200	-10.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2226		0.0140	0.0200	-30.2*	20.0
N-Propylbenzene	Ave	0.8704	0.8214		0.0189	0.0200	-5.6	20.0
2-Chlorotoluene	Ave	0.7359	0.7243		0.0197	0.0200	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.563		0.0195	0.0200	-2.4	20.0
4-Chlorotoluene	Ave	0.7489	0.6907		0.0184	0.0200	-7.8	20.0
tert-Butylbenzene	Ave	2.330	2.267		0.0195	0.0200	-2.7	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.693		0.0201	0.0200	0.7	20.0
sec-Butylbenzene	Ave	3.316	3.319		0.0200	0.0200	0.0	20.0
1,3-Dichlorobenzene	Ave	1.482	1.445	0.6000	0.0195	0.0200	-2.5	20.0
4-Isopropyltoluene	Ave	2.830	2.853		0.0202	0.0200	0.8	20.0
1,4-Dichlorobenzene	Ave	1.504	1.438	0.5000	0.0191	0.0200	-4.4	20.0
n-Butylbenzene	Ave	2.521	2.607		0.0207	0.0200	3.4	20.0
1,2-Dichlorobenzene	Ave	1.430	1.458	0.4000	0.0204	0.0200	2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334645/3 Calibration Date: 07/03/2018 15:36

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900365.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2651	0.0500	0.0178	0.0200	-11.1	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.229	0.2000	0.0230	0.0200	15.2	50.0
Hexachlorobutadiene	Ave	0.5350	0.5692		0.0213	0.0200	6.4	20.0
Naphthalene	Ave	3.272	3.599		0.0220	0.0200	10.0	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.201		0.0233	0.0200	16.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.3050		0.0219	0.0200	9.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3633		0.0213	0.0200	6.7	20.0
Toluene-d8 (Surr)	Ave	1.318	1.387		0.0210	0.0200	5.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4892		0.0194	0.0200	-3.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: bfb017.d BFB Injection Date: 07/04/2018

Instrument ID: A3UX19 BFB Injection Time: 10:26

Analysis Batch No.: 334715

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	53.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	1.0	(1.1) 1
174	50.0 - 120.00 % of mass 95	86.2	
175	5.0 - 9.0 % of mass 174	6.5	(7.6) 1
176	95.0 - 101.0 % of mass 174	84.7	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-334715/2	U1900393.d	07/04/2018	10:54
	CCVIS 240-334715/3	U1900394.d	07/04/2018	11:16
	LCS 240-334715/4	U1900395.d	07/04/2018	11:38
	MB 240-334715/7	U1900398.d	07/04/2018	12:45
MSA-MW-47I-062718	240-97836-6	U1900408.d	07/04/2018	16:25
MSA-MW-47D-062718	240-97836-7	U1900409.d	07/04/2018	16:47

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334715/2 Calibration Date: 07/04/2018 10:54

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 23:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/22/2018 01:16

Lab File ID: U1900393.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0488	0.0433		0.177	0.200	-11.3	20.0
Diisopropyl ether	Ave	0.2476	0.2482		0.0200	0.0200	0.2	20.0
2-Chloro-1,3-butadiene	Ave	0.5298	0.4987		0.0188	0.0200	-5.9	20.0
Ethyl tert-butyl ether	Ave	0.9680	0.8723		0.0180	0.0200	-9.9	20.0
Ethyl acetate	Ave	0.3644	0.2617		0.0287	0.0400	-28.2	50.0
Propionitrile	Ave	0.0588	0.0517		0.176	0.200	-12.1	20.0
Methacrylonitrile	Ave	0.2550	0.1944		0.152	0.200	-23.8*	20.0
Tert-amyl methyl ether	Ave	1.037	0.9175		0.0177	0.0200	-11.5	20.0
n-Butanol	Ave	0.0144	0.0135		0.469	0.500	-6.3	20.0
Ethyl acrylate	Ave	0.4442	0.2671		0.0120	0.0200	-39.9*	20.0
Methyl methacrylate	Ave	0.2999	0.1954		0.0261	0.0400	-34.8*	20.0
2-Nitropropane	Ave	0.1249	0.0771		0.0247	0.0400	-38.3*	20.0
n-Butyl acetate	Ave	0.7997	0.6253		0.0156	0.0200	-21.8*	20.0
1-Chlorohexane	Ave	0.5045	0.4963		0.0197	0.0200	-1.6	20.0
Cyclohexanone	Ave	0.0207	0.0237		0.229	0.200	14.4	20.0
Pentachloroethane	Ave	0.4674	0.5079		0.0435	0.0400	8.7	20.0
1,2,3-Trimethylbenzene	Ave	2.960	2.982		0.0202	0.0200	0.8	20.0
Benzyl chloride	Ave	2.086	1.735		0.0166	0.0200	-16.8	20.0
1,3,5-Trichlorobenzene	Ave	1.291	1.457		0.0226	0.0200	12.8	20.0
2-Methylnaphthalene	Ave	2.209	2.476		0.0448	0.0400	12.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334715/3 Calibration Date: 07/04/2018 11:16

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900394.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4320	0.3829	0.1000	0.0177	0.0200	-11.4	20.0
Chloromethane	Ave	0.3784	0.3227	0.1000	0.0171	0.0200	-14.7	20.0
Butadiene	Ave	0.3786	0.3232		0.0171	0.0200	-14.6	20.0
Vinyl chloride	Ave	0.3642	0.3255	0.1000	0.0179	0.0200	-10.6	20.0
Bromomethane	Ave	0.2611	0.2378	0.0500	0.0182	0.0200	-8.9	20.0
Chloroethane	Ave	0.2164	0.2015	0.0500	0.0186	0.0200	-6.9	20.0
Dichlorofluoromethane	Ave	0.5483	0.4922		0.0180	0.0200	-10.2	20.0
Trichlorofluoromethane	Ave	0.5209	0.4997	0.1000	0.0192	0.0200	-4.1	20.0
Ethyl ether	Ave	0.2320	0.2006		0.0173	0.0200	-13.5	20.0
Acrolein	Ave	0.0591	0.0534		0.0903	0.100	-9.7	50.0
1,1-Dichloroethene	Ave	0.4455	0.3864	0.1000	0.0173	0.0200	-13.3	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.3010	0.2657	0.0500	0.0177	0.0200	-11.7	20.0
Acetone	Lin1		0.1059	0.0100	0.0458	0.0400	14.5	50.0
Iodomethane	Ave	0.4765	0.4294		0.0180	0.0200	-9.9	20.0
Carbon disulfide	Ave	0.8603	0.7286	0.1000	0.0169	0.0200	-15.3	20.0
3-Chloro-1-propene	Ave	0.4938	0.3877		0.0157	0.0200	-21.5*	20.0
Methyl acetate	Ave	0.2872	0.2470	0.1000	0.0344	0.0400	-14.0	20.0
Methylene Chloride	Ave	0.3819	0.3317	0.1000	0.0174	0.0200	-13.1	50.0
tert-Butyl alcohol	Ave	0.0325	0.0427		0.263	0.200	31.4	50.0
Acrylonitrile	Ave	0.1230	0.1200		0.195	0.200	-2.4	20.0
Methyl tert-butyl ether	Ave	0.8387	0.7833	0.1000	0.0187	0.0200	-6.6	20.0
trans-1,2-Dichloroethene	Ave	0.4138	0.3587	0.1000	0.0173	0.0200	-13.3	20.0
Hexane	Ave	0.4628	0.3689		0.0159	0.0200	-20.3*	20.0
1,1-Dichloroethane	Ave	0.5077	0.4607	0.2000	0.0181	0.0200	-9.3	20.0
Vinyl acetate	Ave	0.5255	0.4828		0.0184	0.0200	-8.1	50.0
cis-1,2-Dichloroethene	Ave	0.3202	0.2961	0.1000	0.0185	0.0200	-7.5	20.0
2,2-Dichloropropane	Ave	0.3856	0.3577		0.0185	0.0200	-7.3	20.0
2-Butanone (MEK)	Ave	0.0449	0.0432	0.0100	0.0385	0.0400	-3.8	20.0
Bromochloromethane	Ave	0.2318	0.2258		0.0195	0.0200	-2.6	20.0
Tetrahydrofuran	Ave	0.1273	0.1043		0.0328	0.0400	-18.1	20.0
Chloroform	Ave	0.5158	0.4806	0.2000	0.0186	0.0200	-6.8	20.0
1,1,1-Trichloroethane	Ave	0.4867	0.4383	0.1000	0.0180	0.0200	-9.9	20.0
Cyclohexane	Ave	0.4471	0.4042	0.1000	0.0181	0.0200	-9.6	20.0
1,1-Dichloropropene	Ave	0.4125	0.3713		0.0180	0.0200	-10.0	20.0
Carbon tetrachloride	Lin1		0.3861	0.1000	0.0169	0.0200	-15.4	20.0
Isobutyl alcohol	Ave	0.0121	0.0139		0.574	0.500	14.7	20.0
1,2-Dichloroethane	Ave	0.4148	0.3723	0.1000	0.0179	0.0200	-10.3	20.0
Benzene	Ave	1.097	0.9947	0.5000	0.0181	0.0200	-9.3	20.0
n-Heptane	Lin1		0.2231		0.0156	0.0200	-22.0*	20.0
Trichloroethene	Ave	0.3255	0.2857	0.1500	0.0176	0.0200	-12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334715/3 Calibration Date: 07/04/2018 11:16

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900394.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.5422	0.4819	0.1000	0.0178	0.0200	-11.1	20.0
1,2-Dichloropropane	Ave	0.2653	0.2263	0.1000	0.0171	0.0200	-14.7	20.0
Dibromomethane	Ave	0.2138	0.1964		0.0184	0.0200	-8.1	20.0
1,4-Dioxane	Ave	0.0026	0.0031		0.477	0.400	19.2	50.0
Bromodichloromethane	Ave	0.3967	0.3361	0.1500	0.0169	0.0200	-15.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1944	0.1427		0.0294	0.0400	-26.6*	20.0
cis-1,3-Dichloropropene	Ave	0.4408	0.3525	0.1500	0.0160	0.0200	-20.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3986	0.3013	0.0500	0.0302	0.0400	-24.4*	20.0
Toluene	Ave	1.594	1.435	0.4000	0.0180	0.0200	-10.0	20.0
trans-1,3-Dichloropropene	Ave	0.5703	0.4713	0.1000	0.0165	0.0200	-17.4	20.0
Ethyl methacrylate	Ave	0.5480	0.4495		0.0164	0.0200	-18.0	20.0
1,1,2-Trichloroethane	Ave	0.3269	0.2901	0.1000	0.0177	0.0200	-11.3	20.0
Tetrachloroethene	Ave	0.4464	0.4151	0.1500	0.0186	0.0200	-7.0	20.0
1,3-Dichloropropane	Ave	0.5796	0.4907		0.0169	0.0200	-15.3	20.0
2-Hexanone	Ave	0.4008	0.3058	0.0500	0.0305	0.0400	-23.7*	20.0
Chlorodibromomethane	Ave	0.4086	0.3475		0.0170	0.0200	-14.9	20.0
1,2-Dibromoethane	Ave	0.3604	0.3127		0.0174	0.0200	-13.2	20.0
Chlorobenzene	Ave	0.9882	0.9175	0.3000	0.0186	0.0200	-7.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3892	0.3739		0.0192	0.0200	-3.9	20.0
Ethylbenzene	Ave	0.5482	0.5099		0.0186	0.0200	-7.0	20.0
m-Xylene & p-Xylene	Ave	0.6690	0.6252		0.0187	0.0200	-6.6	20.0
o-Xylene	Ave	0.6616	0.6259		0.0189	0.0200	-5.4	20.0
Styrene	Ave	1.069	0.9838	0.3000	0.0184	0.0200	-7.9	20.0
Bromoform	Ave	0.3193	0.2660	0.1000	0.0167	0.0200	-16.7	20.0
Isopropylbenzene	Ave	1.764	1.724	0.1000	0.0195	0.0200	-2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9350	0.8434	0.3000	0.0180	0.0200	-9.8	20.0
Bromobenzene	Ave	0.7886	0.7117		0.0180	0.0200	-9.8	20.0
1,2,3-Trichloropropane	Ave	0.3218	0.2799		0.0174	0.0200	-13.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3189	0.2295		0.0144	0.0200	-28.0*	20.0
N-Propylbenzene	Ave	0.8704	0.8102		0.0186	0.0200	-6.9	20.0
2-Chlorotoluene	Ave	0.7359	0.7087		0.0193	0.0200	-3.7	20.0
1,3,5-Trimethylbenzene	Ave	2.625	2.521		0.0192	0.0200	-4.0	20.0
4-Chlorotoluene	Ave	0.7489	0.6994		0.0187	0.0200	-6.6	20.0
tert-Butylbenzene	Ave	2.330	2.298		0.0197	0.0200	-1.4	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.575		0.0193	0.0200	-3.7	20.0
sec-Butylbenzene	Ave	3.316	3.368		0.0203	0.0200	1.5	20.0
1,3-Dichlorobenzene	Ave	1.482	1.405	0.6000	0.0190	0.0200	-5.2	20.0
4-Isopropyltoluene	Ave	2.830	2.822		0.0199	0.0200	-0.3	20.0
1,4-Dichlorobenzene	Ave	1.504	1.409	0.5000	0.0187	0.0200	-6.3	20.0
n-Butylbenzene	Ave	2.521	2.619		0.0208	0.0200	3.9	20.0
1,2-Dichlorobenzene	Ave	1.430	1.393	0.4000	0.0195	0.0200	-2.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 240-334715/3 Calibration Date: 07/04/2018 11:16

Instrument ID: A3UX19 Calib Start Date: 06/21/2018 19:43

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/21/2018 21:57

Lab File ID: U1900394.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2983	0.2472	0.0500	0.0166	0.0200	-17.1	50.0
1,2,4-Trichlorobenzene	Ave	1.067	1.101	0.2000	0.0206	0.0200	3.2	50.0
Hexachlorobutadiene	Ave	0.5350	0.5422		0.0203	0.0200	1.3	20.0
Naphthalene	Ave	3.272	3.191		0.0195	0.0200	-2.5	50.0
1,2,3-Trichlorobenzene	Ave	1.030	1.063		0.0206	0.0200	3.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2791	0.2782		0.0199	0.0200	-0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3404	0.3319		0.0195	0.0200	-2.5	20.0
Toluene-d8 (Surr)	Ave	1.318	1.317		0.0200	0.0200	-0.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5041	0.4672		0.0185	0.0200	-7.3	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: ICIS 240-335057/11 Date Analyzed: 07/06/2018 19:47

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12454.D Heated Purge: (Y/N) N

Calibration ID: 45857

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1152543	5.81	934783	8.50	458867	10.74
UPPER LIMIT		2305086	6.31	1869566	9.00	917734	11.24
LOWER LIMIT		576272	5.31	467392	8.00	229434	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335057/15		1003046	5.81	812159	8.50	405679	10.74
ICV 240-335057/24		1124203	5.81	914711	8.50	449289	10.74
CCVIS 240-335235/4		1114318	5.81	911852	8.50	460520	10.74
CCVIS 240-335864/4		1101728	5.81	913629	8.50	459117	10.74
CCVIS 240-336057/4		1148677	5.81	959626	8.50	476814	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-335235/4 Date Analyzed: 07/09/2018 10:42

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12494.D Heated Purge: (Y/N) N

Calibration ID: 45861

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1114318	5.81	911852	8.50	460520	10.74
UPPER LIMIT		2228636	6.31	1823704	9.00	921040	11.24
LOWER LIMIT		557159	5.31	455926	8.00	230260	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-335235/5		1109268	5.81	909942	8.50	438603	10.74
CCV 240-335235/6		1104244	5.81	901699	8.50	447033	10.74
MB 240-335235/8		992595	5.81	761337	8.50	398890	10.74
240-97912-1	TB-062818	1054903	5.81	855409	8.50	434741	10.74
240-97912-2	MSA-MW-49D-062818	995458	5.81	822353	8.50	405130	10.74
240-97912-3	MSA-MW-49I-062818	1054685	5.81	867919	8.50	434819	10.74
240-97912-4	MSA-MW-49S-062818	1024951	5.81	830778	8.50	418843	10.74
240-97912-5	MSA-MW-46S-062818	1044568	5.81	851597	8.50	433335	10.74
240-97912-6	MSA-MW-46I-062818	1054710	5.81	855495	8.50	436480	10.74
240-97912-7	MSA-MW-46D-062818	1054772	5.81	873297	8.50	440956	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-335864/4 Date Analyzed: 07/12/2018 09:25

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12591.D Heated Purge: (Y/N) N

Calibration ID: 45861

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1101728	5.81	913629	8.50	459117	10.74
UPPER LIMIT		2203456	6.31	1827258	9.00	918234	11.24
LOWER LIMIT		550864	5.31	456815	8.00	229559	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-335864/5		1107382	5.81	937730	8.50	460474	10.74
CCV 240-335864/6		1109393	5.81	920434	8.50	449491	10.74
MB 240-335864/9		1058984	5.81	878909	8.50	433836	10.74
240-97969-1	TB-062918	1089388	5.81	888877	8.50	435483	10.74
240-97969-2	MSA-MW-48D-062918	1092251	5.81	912651	8.50	451563	10.74
240-97969-3	MSA-MW-48I-062918	1070608	5.81	879955	8.50	447336	10.74
240-97969-5	DMW-4S-062918	1085108	5.81	895100	8.50	453607	10.74
240-97969-6	DMW-4I-062918	1070415	5.81	878537	8.50	438409	10.74
240-97969-7	DMW-4D-062918	1029203	5.81	856970	8.50	436254	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-336057/4 Date Analyzed: 07/13/2018 09:29

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12620.D Heated Purge: (Y/N) N

Calibration ID: 45861

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1148677	5.81	959626	8.50	476814	10.74
UPPER LIMIT		2297354	6.31	1919252	9.00	953628	11.24
LOWER LIMIT		574339	5.31	479813	8.00	238407	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-336057/5		1126000	5.81	946762	8.50	479338	10.74
CCV 240-336057/6		1039357	5.81	854280	8.50	423202	10.74
MB 240-336057/9		1076810	5.81	903026	8.50	446104	10.74
240-97969-4	MSA-MW-48S-062918	1047214	5.81	867529	8.50	432939	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: ICIS 240-332816/11 Date Analyzed: 06/21/2018 20:50

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900005.d Heated Purge: (Y/N) N

Calibration ID: 45627

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		948753	5.65	686542	8.50	386629	10.88
UPPER LIMIT		1897506	6.15	1373084	9.00	773258	11.38
LOWER LIMIT		474377	5.15	343271	8.00	193315	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-332816/15		976689	5.65	748860	8.50	417760	10.88
ICV 240-332816/24		980224	5.65	730378	8.50	401203	10.88
CCVIS 240-334440/3		650289	5.65	440087	8.50	260160	10.88
CCVIS 240-334645/3		717785	5.65	458822	8.50	274477	10.88
CCVIS 240-334715/3		993763	5.65	679755	8.50	390062	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-334440/3 Date Analyzed: 07/02/2018 15:42

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900337.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		650289	5.65	440087	8.50	260160	10.88
UPPER LIMIT		1300578	6.15	880174	9.00	520320	11.38
LOWER LIMIT		325145	5.15	220044	8.00	130080	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-334440/4		680496	5.65	486126	8.50	279294	10.88
MB 240-334440/7		576983	5.65	375283	8.50	221616	10.88
240-97836-1	TB-062718	511297	5.65	327071	8.50	193069	10.88
240-97836-2	MSA-MW-51D-062718	529988	5.65	352883	8.50	204282	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-334645/3 Date Analyzed: 07/03/2018 15:36

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900365.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		717785	5.65	458822	8.50	274477	10.88
UPPER LIMIT		1435570	6.15	917644	9.00	548954	11.38
LOWER LIMIT		358893	5.15	229411	8.00	137239	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-334645/4		778831	5.65	532007	8.50	316914	10.88
MB 240-334645/7		650977	5.65	401590	8.50	239821	10.88
240-97836-3	MSA-MW-51I-062718	670904	5.65	463061	8.50	265062	10.88
240-97836-4	MSA-MW-51S-062718	623024	5.65	384106	8.50	228147	10.88
240-97836-5	MSA-MW-47S-062718	686468	5.65	469150	8.50	270005	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 240-334715/3 Date Analyzed: 07/04/2018 11:16

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900394.d Heated Purge: (Y/N) N

Calibration ID: 45631

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		993763	5.65	679755	8.50	390062	10.88
UPPER LIMIT		1987526	6.15	1359510	9.00	780124	11.38
LOWER LIMIT		496882	5.15	339878	8.00	195031	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-334715/4		928151	5.65	609698	8.50	369881	10.88
MB 240-334715/7		839910	5.65	533029	8.50	305677	10.88
240-97836-6	MSA-MW-47I-062718	855935	5.65	561775	8.50	338333	10.88
240-97836-7	MSA-MW-47D-062718	851223	5.65	563260	8.50	330662	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

VOC

Sample	MSA-MW-49D-062818	
COMPOUND	Trichloroethene	
COMPOUND AREA	572335	
INTERNAL STANDARD AMOUNT (ng)	20	
INTERNAL STANDARD AREA	995458	
AVERAGE RRF	0.2987	
DILUTION FACTOR	166.67	
572335 x 20 / 995458 x 0.298656808298	38.50	ng/ul
	6417.15	ug/L

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49D-062818 Lab Sample ID: 240-97912-2

Matrix: Water Lab File ID: UXM12511.D

Analysis Method: 8260C Date Collected: 06/28/2018 09:57

Sample wt/vol: 5(mL) Date Analyzed: 07/09/2018 17:56

Soil Aliquot Vol: Dilution Factor: 166.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335235 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	140	U	170	140
67-66-3	Chloroform	22	U	170	22
74-87-3	Chloromethane	33	U	170	33
156-59-2	cis-1,2-Dichloroethene	2100		170	27
10061-01-5	cis-1,3-Dichloropropene	100	U	170	100
74-95-3	Dibromomethane	15	U	170	15
74-97-5	Bromochloromethane	23	U	170	23
75-71-8	Dichlorodifluoromethane	58	U	170	58
75-27-4	Bromodichloromethane	28	U	170	28
75-65-0	tert-Butyl alcohol	280	U	8300	280
100-41-4	Ethylbenzene	18	U	170	18
87-68-3	Hexachlorobutadiene	140	U	170	140
108-20-3	Diisopropyl ether	28	U	1700	28
98-82-8	Isopropylbenzene	15	U	170	15
1634-04-4	Methyl tert-butyl ether	12	U	170	12
75-09-2	Methylene Chloride	440	U	830	440
179601-23-1	m-Xylene & p-Xylene	13	U	330	13
91-20-3	Naphthalene	53	U	170	53
104-51-8	n-Butylbenzene	23	U	170	23
103-65-1	N-Propylbenzene	25	U	170	25
95-47-6	o-Xylene	15	U	170	15
135-98-8	sec-Butylbenzene	22	U	170	22
100-42-5	Styrene	17	U	170	17
994-05-8	Tert-amyl methyl ether	18	U	830	18
637-92-3	Ethyl tert-butyl ether	25	U	830	25
127-18-4	Tetrachloroethene	25	U	170	25
108-88-3	Toluene	23	U	170	23
156-60-5	trans-1,2-Dichloroethene	39	J	170	32
10061-02-6	trans-1,3-Dichloropropene	110	U	170	110
79-01-6	Trichloroethene	6400	✓	170	17
75-69-4	Trichlorofluoromethane	75	U	170	75
108-05-4	Vinyl acetate	32	U	330	32
75-01-4	Vinyl chloride	280		170	33
1330-20-7	Xylenes, Total	25	U	330	25
98-06-6	tert-Butylbenzene	23	U	170	23
106-93-4	1,2-Dibromoethane	20	U	170	20

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A3UX16\20180709-77771.b\UXM12511.D
Lims ID: 240-97912-A-2
Client ID: MSA-MW-49D-062818
Sample Type: Client
Inject. Date: 09-Jul-2018 17:56:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 166.6700
Sample Info: 240-0077771-021
Operator ID: 001765 Instrument ID: A3UX16

Method: \\ChromNA\Canton\ChromData\A3UX16\20180709-77771.b\8260_16.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Jul-2018 08:45:08 Calib Date: 07-Jul-2018 01:02:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A3UX16\20180706-77719.b\UXM12466.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: bosworthh Date: 10-Jul-2018 08:53:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.810	5.810	0.000	99	995458	20.0	
* 2 Chlorobenzene-d5	117	8.502	8.502	0.000	87	822353	20.0	
* 3 1,4-Dichlorobenzene-d4	152	10.743	10.743	0.000	97	405130	20.0	
$ 4 Dibromofluoromethane (Surr	113	5.229	5.229	0.000	93	216693	18.0	
$ 5 1,2-Dichloroethane-d4 (Sur	65	5.525	5.525	0.000	98	310134	17.6	
$ 6 Toluene-d8 (Surr)	98	7.186	7.185	0.001	93	982011	18.4	
$ 7 4-Bromofluorobenzene (Surr	95	9.617	9.616	0.001	86	359725	19.0	
9 Dichlorodifluoromethane	85		1.802				ND	
10 Chloromethane	50		2.027				ND	
11 Vinyl chloride	62	2.122	2.134	-0.012	95	27728	1.68	
13 Bromomethane	94		2.489				ND	
14 Chloroethane	64		2.537				ND	
16 Trichlorofluoromethane	101		2.845				ND	
19 1,1-Dichloroethene	96	3.296	3.260	0.036	94	10152	0.8891	
21 Acetone	58	3.308	3.308	0.000	68	1340	0.8614	
20 1,1,2-Trichloro-1,2,2-trif	151		3.308				ND	
24 Carbon disulfide	76		3.474				ND	
28 Methylene Chloride	84	3.735	3.699	0.036	29	2953	0.1987	
29 2-Methyl-2-propanol	59		3.806				ND	
32 trans-1,2-Dichloroethene	96	3.948	3.948	0.000	93	3378	0.2368	
31 Methyl tert-butyl ether	73		3.960				ND	
34 1,1-Dichloroethane	63	4.328	4.328	0.000	86	3713	0.1517	
35 Vinyl acetate	43		4.351				ND	
36 Isopropyl ether	87		4.375				ND	
38 Tert-butyl ethyl ether	59		4.695				ND	
41 2,2-Dichloropropane	97		4.826				ND	U
39 cis-1,2-Dichloroethene	96	4.826	4.826	0.000	80	197771	12.5	
40 2-Butanone (MEK)	72		4.826				ND	
45 Chlorobromomethane	128		5.027				ND	
47 Chloroform	83		5.098				ND	
48 1,1,1-Trichloroethane	97	5.276	5.264	0.012	91	7809	0.4068	
51 Carbon tetrachloride	117		5.407				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
50 1,1-Dichloropropene	75		5.407				ND	
53 1,2-Dichloroethane	62		5.585				ND	
54 Benzene	78		5.585				ND	
55 Tert-amyl methyl ether	73		5.668				ND	
58 Trichloroethene	130	6.130	6.130	0.000	97	572335	38.5	
61 1,2-Dichloropropane	63		6.320				ND	
63 Dibromomethane	93		6.427				ND	
65 Dichlorobromomethane	83		6.545				ND	
67 2-Chloroethyl vinyl ether	63		6.794				ND	
68 cis-1,3-Dichloropropene	75		6.936				ND	
69 4-Methyl-2-pentanone (MIBK	43		7.067				ND	
70 Toluene	91		7.245				ND	
71 trans-1,3-Dichloropropene	75		7.423				ND	
75 Tetrachloroethene	164		7.743				ND	
74 1,3-Dichloropropane	76		7.755				ND	
76 2-Hexanone	43		7.802				ND	
78 Chlorodibromomethane	129		7.968				ND	
80 Ethylene Dibromide	107		8.087				ND	
82 Chlorobenzene	112		8.537				ND	
83 1,1,1,2-Tetrachloroethane	131		8.597				ND	
84 Ethylbenzene	106		8.620				ND	
85 m-Xylene & p-Xylene	106		8.727				ND	
86 o-Xylene	106		9.107				ND	
87 Styrene	104		9.118				ND	
88 Bromoform	173		9.308				ND	
89 Isopropylbenzene	105		9.462				ND	
92 1,1,2,2-Tetrachloroethane	83		9.735				ND	
93 Bromobenzene	156		9.771				ND	
95 1,2,3-Trichloropropane	110		9.782				ND	
96 N-Propylbenzene	120		9.854				ND	
97 2-Chlorotoluene	126		9.948				ND	
100 4-Chlorotoluene	126		10.055				ND	
102 tert-Butylbenzene	119		10.352				ND	
104 1,2,4-Trimethylbenzene	105		10.399				ND	
105 sec-Butylbenzene	105		10.565				ND	
106 1,3-Dichlorobenzene	146		10.684				ND	
107 4-Isopropyltoluene	119		10.707				ND	
108 1,4-Dichlorobenzene	146		10.767				ND	
109 1,2,3-Trimethylbenzene	105		10.814				ND	
111 n-Butylbenzene	91		11.111				ND	
112 1,2-Dichlorobenzene	146		11.146				ND	
113 1,2-Dibromo-3-Chloropropan	157		11.917				ND	
115 1,2,4-Trichlorobenzene	180		12.747				ND	
116 Hexachlorobutadiene	225		12.925				ND	
117 Naphthalene	128		13.008				ND	
118 1,2,3-Trichlorobenzene	180		13.281				ND	
S 133 Xylenes, Total	106		16.950				ND	
T 125 Chlorodifluoromethane TIC	51		1.800				ND	

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation - Page 5

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2539 0.3199	0.3056 0.3216	0.2888	0.2936	0.3030	Ave		0.2981			0.1000	7.7		20.0			
Isobutyl alcohol	0.0116 0.0098	0.0123 0.0089	0.0102	0.0100	0.0102	Ave		0.0104				11.1		20.0			
Benzene	1.1468 1.2193	1.1989 1.2182	1.1620	1.1740	1.1894	Ave		1.1869			0.5000	2.3		20.0			
1,2-Dichloroethane	0.4446 0.4294	0.4207 0.4255	0.4129	0.4228	0.4209	Ave		0.4252			0.1000	2.3		20.0			
n-Heptane	+++++ 0.1245	1.0187 0.1132	0.1703	0.1372	0.1225	Lin1	0.8918	0.1021				17.0			0.9950		0.9900
Trichloroethene	0.2947 0.3003	0.3271 0.2985	0.2891	0.2914	0.2895	Ave		0.2987			0.1500	4.4		20.0			
Methylcyclohexane	+++++ 0.3142	0.4815 0.3063	0.2981	0.2906	0.2965	Lin1	0.1483	0.3014			0.1000	7.1			0.9990		0.9900
1,2-Dichloropropane	0.2563 0.2770	0.2670 0.2734	0.2674	0.2681	0.2729	Ave		0.2689			0.1000	2.5		20.0			
Dibromomethane	0.1593 0.1775	0.1601 0.1767	0.1707	0.1710	0.1766	Ave		0.1703				4.5		20.0			
1,4-Dioxane	+++++ 0.0034	0.0018 0.0034	0.0029	0.0026	0.0035	Lin1	-0.043	0.0034				13.6			0.9940		0.9900
Bromodichloromethane	0.3245 0.3780	0.3400 0.3863	0.3480	0.3600	0.3736	Ave		0.3586			0.1500	6.2		20.0			
2-Chloroethyl vinyl ether	0.1709 0.1976	0.1716 0.1994	0.1814	0.1863	0.1959	Ave		0.1861				6.5		20.0			
cis-1,3-Dichloropropene	0.3694 0.4777	0.4071 0.4809	0.4351	0.4476	0.4725	Ave		0.4415			0.1500	9.4		20.0			
4-Methyl-2-pentanone (MIBK)	0.2905 0.2956	0.2776 0.2950	0.2921	0.2894	0.2994	Ave		0.2914			0.0500	2.4		20.0			
Toluene	1.6113 1.5620	1.5718 1.5574	1.5027	1.4934	1.5415	Ave		1.5486			0.4000	2.6		20.0			
trans-1,3-Dichloropropene	0.4153 0.5585	0.4705 0.5604	0.4935	0.5149	0.5448	Ave		0.5083			0.1000	10.4		20.0			
Ethyl methacrylate	0.4660 0.5350	0.4680 0.5380	0.5016	0.5139	0.5377	Ave		0.5086				6.2		20.0			
1,1,2-Trichloroethane	0.3076 0.3164	0.3056 0.3152	0.2978	0.3087	0.3178	Ave		0.3099			0.1000	2.3		20.0			
Tetrachloroethene	0.2516 0.2328	0.2597 0.2323	0.2245	0.2188	0.2227	Ave		0.2346			0.1500	6.6		20.0			
1,3-Dichloropropane	0.5459 0.5884	0.5639 0.5936	0.5701	0.5756	0.5888	Ave		0.5752				2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
MSA-MW-51D-062718	240-97836-2	64	52	64	62	65	71
MSA-MW-51I-062718	240-97836-3	55	43	62	62	29 X	69
MSA-MW-51S-062718	240-97836-4	80	57	72	70	49	78
MSA-MW-47S-062718	240-97836-5	70	53	66	66	57	71
MSA-MW-47I-062718	240-97836-6	92	81	96	104	87	123
MSA-MW-47D-062718	240-97836-7	70	52	62	63	36	75
MSA-MW-49D-062818	240-97912-2	66	51	60	56	83	87
MSA-MW-49I-062818	240-97912-3	47	36	47	40	73	79
MSA-MW-49S-062818	240-97912-4	63	61	60	51	78	79
MSA-MW-46S-062818	240-97912-5	78	56	65	55	83	83
MSA-MW-46I-062818	240-97912-6	60	47	56	45	74	85
MSA-MW-46D-062818	240-97912-7	67	58	62	51	68	90
MSA-MW-48D-062918	240-97969-2	58	44	64	61	72	83
MSA-MW-48I-062918	240-97969-3	58	52	62	59	76	79
MSA-MW-48S-062918	240-97969-4	69	64	67	68	80	84
DMW-4S-062918	240-97969-5	65	46	63	64	78	81
DMW-4I-062918	240-97969-6	60	52	64	63	79	83
DMW-4D-062918	240-97969-7	53	63	55	51	67	83
	MB 240-334070/9-A	52	34	56	57	55	71
	MB 240-334783/16-A	49	42	64	61	71	91
	LCS 240-334070/10-A	61	45	71	69	80	81
	LCS 240-334783/17-A	65	49	81	78	87	88

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80702005.D Lab Sample ID: MB 240-334070/9-A

Matrix: Water Date Extracted: 06/29/2018 06:47

Instrument ID: A4AG2 Date Analyzed: 07/02/2018 08:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334070/10-A	80702006.D	07/02/2018 09:06
MSA-MW-51D-062718	240-97836-2	80703013.D	07/03/2018 12:42
MSA-MW-51I-062718	240-97836-3	80703014.D	07/03/2018 13:07
MSA-MW-51S-062718	240-97836-4	80703015.D	07/03/2018 13:33
MSA-MW-47S-062718	240-97836-5	80703016.D	07/03/2018 13:59
MSA-MW-47D-062718	240-97836-7	80703018.D	07/03/2018 14:50
MSA-MW-47I-062718	240-97836-6	80705022.D	07/05/2018 15:17

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334070/9-A

Matrix: Water | Lab File ID: 80702005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 250(mL) | Date Analyzed: 07/02/2018 08:41

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334308 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		28-128
4165-62-2	Phenol-d5 (Surr)	34		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-120
367-12-4	2-Fluorophenol (Surr)	52		17-120
321-60-8	2-Fluorobiphenyl (Surr)	57		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	55		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80702006.D

Lab ID: LCS 240-334070/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	12.6	39	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80709021.D Lab Sample ID: MB 240-334783/16-A

Matrix: Water Date Extracted: 07/05/2018 08:33

Instrument ID: A4AG2 Date Analyzed: 07/09/2018 14:21

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-334783/17-A	80709022.D	07/09/2018 14:46
MSA-MW-49D-062818	240-97912-2	80709024.D	07/09/2018 17:41
MSA-MW-49I-062818	240-97912-3	80709025.D	07/09/2018 18:06
MSA-MW-49S-062818	240-97912-4	80710016.D	07/10/2018 15:46
MSA-MW-46S-062818	240-97912-5	80710017.D	07/10/2018 16:11
MSA-MW-46I-062818	240-97912-6	80710018.D	07/10/2018 16:36
MSA-MW-46D-062818	240-97912-7	80710019.D	07/10/2018 17:01
MSA-MW-48D-062918	240-97969-2	80710023.D	07/10/2018 18:43
MSA-MW-48S-062918	240-97969-4	80710025.D	07/10/2018 19:33
DMW-4S-062918	240-97969-5	80710026.D	07/10/2018 19:58
DMW-4I-062918	240-97969-6	80710027.D	07/10/2018 20:22
DMW-4D-062918	240-97969-7	80710028.D	07/10/2018 20:47
MSA-MW-48I-062918	240-97969-3	80711012.D	07/11/2018 10:58

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334783/16-A

Matrix: Water | Lab File ID: 80709021.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 07/05/2018 08:33

Sample wt/vol: 250(mL) | Date Analyzed: 07/09/2018 14:21

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335188 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	91		28-128
4165-62-2	Phenol-d5 (Surr)	42		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	64		35-120
367-12-4	2-Fluorophenol (Surr)	49		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	71		33-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80709022.D

Lab ID: LCS 240-334783/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	10.5	33	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80625001.D DFTPP Injection Date: 06/25/2018

Instrument ID: A4AG2 DFTPP Injection Time: 07:31

Analysis Batch No.: 333230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.2	
70	Less than 2.0% of mass 69	0.2	(0.4) 1
127	25.0 - 75.0% of mass 198	52.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	28.2	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	11.2	
442	40.0 - 110.0% of mass 198	75.0	
443	15.0 - 24.0% of mass 442	14.5	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-333230/2	80625002.D	06/25/2018	07:50
	STD8 240-333230/3	80625003.D	06/25/2018	08:15
	STD7 240-333230/4	80625004.D	06/25/2018	08:39
	STD6 240-333230/5	80625005.D	06/25/2018	09:04
	STD5 240-333230/6	80625006.D	06/25/2018	09:28
	STD4 240-333230/7	80625007.D	06/25/2018	09:53
	STD3 240-333230/8	80625008.D	06/25/2018	10:18
	STD2 240-333230/9	80625009.D	06/25/2018	10:42
	STD1 240-333230/10	80625010.D	06/25/2018	11:07
	ICV 240-333230/11	80625011.D	06/25/2018	11:32

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-333230/10	80625010.D
Level 2	STD2 240-333230/9	80625009.D
Level 3	STD3 240-333230/8	80625008.D
Level 4	STD4 240-333230/7	80625007.D
Level 5	STD5 240-333230/6	80625006.D
Level 6	STD6 240-333230/5	80625005.D
Level 7	STD7 240-333230/4	80625004.D
Level 8	STD8 240-333230/3	80625003.D
Level 9	STD9 240-333230/2	80625002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.3100	0.2865 0.2963	0.2886 0.2676	0.2549 0.2920	0.2670	Ave		0.2829				6.4		20.0			
N-Nitrosodimethylamine	0.9674	0.8659 1.0138	0.8703 0.9298	0.8585 1.0033	0.9175	Ave		0.9283				6.7		20.0			
Pyridine	0.8555 0.9368	0.7398 0.9468	0.6864 0.8794	0.6769 0.9909	0.7369	Ave		0.8277				14.5		20.0			
Benzaldehyde	+++++ 1.0100	1.5420 0.9381	1.5422 0.8000	1.4312 0.7136	1.3486	Qua	92.758	1.2134	-0.000105		0.0100				0.9970		0.9900
Phenol	1.4468	1.8920 1.4787	1.8795 1.5606	1.6271 1.5201	1.9146	Ave		1.6649			0.8000	11.9		20.0			
Aniline	2.6313	2.7201 2.6653	2.7910 2.6003	2.8268 2.4928	3.0410	Ave		2.7211				6.2		20.0			
Bis(2-chloroethyl)ether	1.7557	1.7794 1.8187	1.9195 1.8395	1.9029 1.8471	2.0209	Ave		1.8604			0.7000	4.6		20.0			
n-Decane	1.7925	1.6370 1.7253	1.6757 1.6357	1.6647 1.6941	1.6715	Ave		1.6871				3.1		20.0			
2-Chlorophenol	1.3636	1.4500 1.4855	1.5639 1.5030	1.4920 1.4584	1.6911	Ave		1.5009			0.8000	6.4		20.0			
1,3-Dichlorobenzene	1.6189	1.5923 1.6752	1.6115 1.6187	1.6246 1.6515	1.6662	Ave		1.6324				1.8		20.0			
1,4-Dichlorobenzene	1.6583	1.7090 1.7388	1.6635 1.6717	1.6617 1.6640	1.7286	Ave		1.6869				2.0		20.0			
Benzyl alcohol	1.1178	0.9988 1.1713	1.1036 1.1332	1.0582 1.1491	1.1078	Ave		1.1050				4.9		20.0			
1,2-Dichlorobenzene	1.6387	1.6534 1.7054	1.7041 1.6630	1.6818 1.6277	1.7769	Ave		1.6814				2.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.3876	1.3725 1.4660	1.5840 1.4929	1.4109 1.5198	1.6176	Ave		1.4814			0.7000	6.1		20.0			
bis (2-chloroisopropyl) ether	2.8778	3.0649 2.8349	3.2774 2.7932	3.2619 2.6535	3.3592	Ave		3.0153				8.7		20.0			
Indene	3.0141	3.0682 3.1205	3.1965 2.9955	3.1994 2.8567	3.3595	Ave		3.1013				5.0		20.0			
3 & 4 Methylphenol	1.4489	1.3211 1.5171	1.4360 1.5196	1.3636 1.5878	1.4277	Ave		1.4527				6.0		20.0			
N-Nitrosodi-n-propylamine	1.4249	1.3104 1.3935	1.4577 1.3501	1.5542 1.2977	1.5990	Ave		1.4234			0.5000	7.7		20.0			
Acetophenone	2.5270	2.3173 2.4948	2.5587 2.3981	2.5579 2.3621	2.7036	Ave		2.4899			0.0100	5.1		20.0			
Hexachloroethane	0.6744	0.6652 0.6919	0.6945 0.6765	0.6925 0.6755	0.7018	Ave		0.6840			0.3000	1.9		20.0			
Nitrobenzene	0.4083	0.4083 0.4159	0.4172 0.4128	0.4089 0.3951	0.4215	Ave		0.4110			0.2000	1.9		20.0			
Isophorone	0.7387	0.6623 0.7248	0.6782 0.7189	0.7494 0.7023	0.7595	Ave		0.7168			0.4000	4.7		20.0			
2,4-Dimethylphenol	0.3512	0.2964 0.3593	0.2931 0.3604	0.3080 0.3643	0.3085	Ave		0.3302			0.2000	9.5		20.0			
2-Nitrophenol	0.2032	0.1585 0.2076	0.1722 0.2082	0.1841 0.2055	0.1984	Ave		0.1922			0.1000	9.7		20.0			
Benzoic acid	0.2013	+++++ 0.2098	0.0431 0.2086	0.1376 0.2011	0.1775	Lin1	-32.80	0.2143							0.9990		0.9900
Bis(2-chloroethoxy)methane	0.4397	0.4257 0.4385	0.4401 0.4376	0.4719 0.4243	0.4658	Ave		0.4430			0.3000	3.9		20.0			
2,4-Dichlorophenol	0.2454	0.1951 0.2569	0.2105 0.2612	0.2116 0.2663	0.2133	Ave		0.2326			0.2000	12.0		20.0			
1,2,4-Trichlorobenzene	0.2748	0.2910 0.2962	0.2916 0.3039	0.2847 0.2963	0.2916	Ave		0.2913				3.0		20.0			
Naphthalene	1.1092 1.0901	1.0799 1.1177	1.0971 1.1045	1.0841 1.0779	1.1166	Ave		1.0975			0.7000	1.4		20.0			
4-Chloroaniline	0.6003	0.5049 0.5737	0.5088 0.5401	0.5732 0.5269	0.6011	Ave		0.5536			0.0100	7.0		20.0			
2,6-Dichlorophenol	0.2783	0.2256 0.2849	0.2298 0.2879	0.2536 0.2845	0.2608	Ave		0.2632				9.5		20.0			
Hexachlorobutadiene	0.1419	0.1476 0.1546	0.1526 0.1544	0.1467 0.1542	0.1488	Ave		0.1501			0.0100	3.1		20.0			
Caprolactam	0.1032 0.1235	0.1127 0.1209	0.1180 0.1172	0.1259 0.1155	0.1232	Ave		0.1178			0.0100	5.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.3159	0.2063 0.3149	0.2123 0.3096	0.2711 0.3065	0.3103	Ave		0.2809			0.2000	16.5		20.0			
2-Methylnaphthalene	0.6624 0.7474	0.6458 0.7381	0.6843 0.7443	0.7294 0.7236	0.7427	Ave		0.7131			0.4000	5.4		20.0			
1-Methylnaphthalene	0.6646 0.7095	0.6273 0.7009	0.6555 0.6992	0.7085 0.6908	0.7213	Ave		0.6864				4.5		20.0			
Hexachlorocyclopentadiene	0.3500	0.2699 0.3650	0.2821 0.3830	0.2912 0.3914	0.3351	Ave		0.3335			0.0500	14.1		20.0			
1,2,4,5-Tetrachlorobenzene	0.5568	0.4403 0.5752	0.4509 0.5930	0.4770 0.5911	0.5204	Ave		0.5256			0.0100	11.9		20.0			
2,4,6-Trichlorophenol	0.3814	0.2611 0.4043	0.2870 0.4078	0.3416 0.4035	0.3845	Ave		0.3589			0.2000	15.8		20.0			
2,4,5-Trichlorophenol	0.4010	0.1739 0.4036	0.2101 0.4024	0.3318 0.4047	0.4008	Lin1	-14.35	0.4120			0.2000				0.9990		0.9900
1,1'-Biphenyl	1.8378 1.6768	1.5026 1.6828	1.6159 1.7257	1.6668 1.6901	1.6728	Ave		1.6746			0.0100	5.3		20.0			
2-Chloronaphthalene	1.3830 1.2643	1.1172 1.2896	1.1958 1.3052	1.2266 1.2926	1.3082	Ave		1.2647			0.8000	6.1		20.0			
2-Nitroaniline	0.4600	0.4176 0.4580	0.4133 0.4524	0.4458 0.4429	0.4659	Ave		0.4445			0.0100	4.4		20.0			
Dimethyl phthalate	1.4218	1.4425 1.4456	1.4342 1.4455	1.4142 1.4204	1.4495	Ave		1.4342			0.0100	0.9		20.0			
1,3-Dinitrobenzene	0.2404	0.1701 0.2467	0.1945 0.2473	0.2146 0.2487	0.2371	Ave		0.2249				13.0		20.0			
2,6-Dinitrotoluene	0.3390	0.3046 0.3429	0.3102 0.3404	0.3212 0.3367	0.3266	Ave		0.3277				4.4		20.0			
Acenaphthylene	1.8084 1.8855	1.7378 1.8988	1.7837 1.9175	1.8766 1.8764	1.9122	Ave		1.8552			0.9000	3.4		20.0			
3-Nitroaniline	0.3452	0.2917 0.3158	0.3060 0.3007	0.3589 0.3020	0.3586	Ave		0.3224			0.0100	8.5		20.0			
2,4-Dinitrophenol	0.2036	+++++ 0.2192	0.0915 0.2261	0.1415 0.2349	0.1848	Lin1	-33.95	0.2334			0.0100				0.9980		0.9900
Acenaphthene	1.3712 1.3481	1.2578 1.3604	1.3085 1.3954	1.3180 1.3608	1.3519	Ave		1.3413			0.9000	3.0		20.0			
4-Nitrophenol	0.2205	+++++ 0.2137	0.1637 0.2209	0.1994 0.2146	0.2052	Ave		0.2054				9.7		20.0			
2,4-Dinitrotoluene	0.4214	0.3433 0.4283	0.3946 0.4245	0.4105 0.4229	0.4303	Ave		0.4095			0.2000	7.1		20.0			
Dibenzofuran	1.8125 1.7748	1.7797 1.8146	1.7747 1.8069	1.7480 1.7759	1.8038	Ave		1.7879			0.8000	1.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.3096	0.2412 0.3168	0.2671 0.3178	0.2897 0.3248	0.3032	Ave		0.2963			0.0100	9.8		20.0			
Hexadecane	1.0797	1.0542 1.0578	1.1209 1.0526	1.1140 1.0123	1.1243	Ave		1.0770				3.7		20.0			
Diethyl phthalate	1.4894	1.5511 1.4783	1.5365 1.5005	1.4816 1.4706	1.5248	Ave		1.5041			0.0100	2.0		20.0			
4-Chlorophenyl phenyl ether	0.6659	0.6529 0.6852	0.6626 0.6900	0.6328 0.6872	0.6636	Ave		0.6675			0.4000	2.9		20.0			
4-Nitroaniline	0.3025	0.3282 0.2697	0.3475 0.2667	0.3397 0.2541	0.3014	Ave		0.3012			0.0100	11.7		20.0			
Fluorene	1.6900 1.4908	1.4515 1.5224	1.3983 1.5340	1.4202 1.5154	1.4816	Ave		1.5005			0.9000	5.6		20.0			
4,6-Dinitro-2-methylphenol	0.1424	+++++ 0.1518	0.0823 0.1572	0.1067 0.1618	0.1251	Lin1	-19.97	0.1604			0.0100				0.9980		0.9900
Diphenylamine	0.7355	0.6447 0.7337	0.6695 0.7559	0.6884 0.7478	0.7300	Ave		0.7132				5.7		20.0			
N-Nitrosodiphenylamine	0.6251	0.5480 0.6237	0.5691 0.6425	0.5851 0.6357	0.6205	Ave		0.6062			0.0100	5.7		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.9917	0.8941 0.9791	0.9390 1.0050	0.9443 0.9515	1.0144	Ave		0.9672				3.8		20.0			
Azobenzene	0.9917	0.9062 0.9796	0.9465 1.0050	0.9433 0.9515	1.0141	Ave		0.9672				3.8		20.0			
4-Bromophenyl phenyl ether	0.2153	0.1960 0.2269	0.1961 0.2362	0.2017 0.2360	0.2142	Ave		0.2153			0.1000	7.7		20.0			
Atrazine	0.1998 0.2381	0.1928 0.2457	0.2078 0.2537	0.2096 0.2404	0.2194	Ave		0.2230			0.0100	9.9		20.0			
Hexachlorobenzene	0.2309 0.2392	0.2065 0.2528	0.2059 0.2613	0.2120 0.2658	0.2298	Ave		0.2338			0.1000	9.8		20.0			
n-Octadecane	0.6591	0.5824 0.6449	0.6159 0.6682	0.6462 0.6369	0.6624	Ave		0.6395				4.4		20.0			
Pentachlorophenol	0.1481	0.0895 0.1587	0.1012 0.1723	0.1206 0.1762	0.1341	Lin1	-12.78	0.1692			0.0500				0.9940		0.9900
Phenanthrene	1.1401 1.1443	1.0512 1.1580	1.0955 1.2013	1.1313 1.1904	1.1444	Ave		1.1396			0.7000	4.0		20.0			
Anthracene	1.1330 1.1997	1.0914 1.2257	1.0959 1.2642	1.1262 1.2446	1.2058	Ave		1.1763			0.7000	5.6		20.0			
Carbazole	0.9730	1.0131 1.0151	1.0181 0.9604	0.9913 0.9747	0.9780	Ave		0.9905			0.0100	2.3		20.0			
Di-n-butyl phthalate	1.4491	1.2793 1.4701	1.3132 1.4846	1.3382 1.4434	1.4109	Ave		1.3986			0.0100	5.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0366 1.1734	1.0557 1.2049	1.0913 1.2079	1.0697 1.1962	1.1350	Ave		1.1301			0.6000	6.0		20.0			
Benzidine	 0.5568	0.2722 0.6332	0.3635 0.5671	0.4447 0.5873	0.5367	Lin1	-40.82	0.5962							0.9970		0.9900
Pyrene	1.2736 1.2715	1.2705 1.2419	1.2688 1.2406	1.2259 1.2566	1.2784	Ave		1.2586			0.6000	1.5		20.0			
Butyl benzyl phthalate	 0.6709	0.5792 0.6697	0.6143 0.6971	0.6272 0.6963	0.6873	Ave		0.6552			0.0100	6.6		20.0			
Bis(2-ethylhexyl) phthalate	 0.9359	0.7669 0.9359	0.7872 0.9717	0.8645 0.9621	0.9381	Ave		0.8953			0.0100	8.9		20.0			
3,3'-Dichlorobenzidine	 0.4018	0.3573 0.4263	0.4041 0.4048	0.4358 0.4060	0.4427	Ave		0.4099			0.0100	6.5		20.0			
Benzo[a]anthracene	1.1379 1.1925	1.1008 1.2160	1.1032 1.2280	1.1323 1.2338	1.2100	Ave		1.1727			0.8000	4.6		20.0			
Chrysene	1.1912 1.1608	1.1296 1.1726	1.1130 1.1620	1.1525 1.1798	1.1843	Ave		1.1607			0.7000	2.2		20.0			
Di-n-octyl phthalate	 1.6420	1.1116 1.6874	1.3520 1.7476	1.4622 1.7276	1.6303	Ave		1.5451			0.0100	14.3		20.0			
Benzo[b]fluoranthene	1.1076 1.2000	1.0762 1.2612	1.1133 1.3151	1.1500 1.2650	1.1962	Ave		1.1872			0.7000	6.9		20.0			
Benzo[k]fluoranthene	1.0234 1.3092	1.1376 1.3041	1.2647 1.2835	1.2226 1.3591	1.3180	Ave		1.2469			0.7000	8.5		20.0			
Benzo[a]pyrene	0.9403 1.1647	0.9967 1.2147	1.0572 1.2499	1.1023 1.2319	1.1709	Ave		1.1254			0.7000	9.7		20.0			
Indeno[1,2,3-cd]pyrene	1.1297 1.3471	1.1472 1.4183	1.1908 1.4616	1.2202 1.3876	1.3245	Ave		1.2919			0.5000	9.5		20.0			
Dibenz(a,h)anthracene	0.9467 1.1411	0.9341 1.2096	1.0208 1.2629	1.0180 1.1961	1.1473	Ave		1.0974			0.4000	11.0		20.0			
Benzo[g,h,i]perylene	0.9076 1.0733	0.9563 1.1350	1.0538 1.1217	1.0326 1.1102	1.1133	Ave		1.0560			0.5000	7.5		20.0			
2-Fluorophenol (Surr)	 0.8437	0.8434 0.8205	0.8491 0.8795	0.8170 0.8179	0.8877	Ave		0.8449				3.2		20.0			
Phenol-d5 (Surr)	 1.3012	1.6914 1.3397	1.6815 1.4180	1.4959 1.3718	1.7296	Ave		1.5036				11.5		20.0			
Nitrobenzene-d5 (Surr)	0.3988 0.4079	0.4092 0.4174	0.4040 0.4135	0.4048 0.3996	0.4263	Ave		0.4091				2.2		20.0			
2-Fluorobiphenyl (Surr)	1.5368 1.3904	1.3228 1.4257	1.3603 1.4688	1.3942 1.4231	1.3888	Ave		1.4123				4.4		20.0			
2,4,6-Tribromophenol (Surr)	 0.1750	0.1420 0.1832	0.1503 0.1822	0.1684 0.1905	0.1760	Ave		0.1709				9.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Terphenyl-d14 (Surr)	0.8277 0.8407	0.7992 0.8593	0.8053 0.8834	0.8378 0.8978	0.8804	Ave		0.8480				4.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-333230/10	80625010.D
Level 2	STD2 240-333230/9	80625009.D
Level 3	STD3 240-333230/8	80625008.D
Level 4	STD4 240-333230/7	80625007.D
Level 5	STD5 240-333230/6	80625006.D
Level 6	STD6 240-333230/5	80625005.D
Level 7	STD7 240-333230/4	80625004.D
Level 8	STD8 240-333230/3	80625003.D
Level 9	STD9 240-333230/2	80625002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	88628	3958 128305	7505 156265	13885 217094	34406	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	276574	11962 438978	22629 543040	46773 745785	118255	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	4468 535634	20439 819934	35698 1027191	73758 1473204	189944	20.0 2000	100 3000	200 4000	400 5000	1000
Benzaldehyde	DCBd 4	Qua	+++++ 577532	42603 812375	80205 934422	155940 1060962	347621	+++++ 2000	100 3000	200 4000	400 5000	1000
Phenol	DCBd 4	Ave	413635	26137 640256	48871 911437	88645 1130002	246758	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	752281	37577 1154010	72574 1518643	154002 1853007	391927	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	501933	24581 787452	49912 1074291	103668 1373052	260458	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	512456	22614 747037	43574 955277	90695 1259306	215423	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	389849	20031 643178	40667 877817	81286 1084081	217948	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	462838	21997 725338	41904 945351	88510 1227644	214745	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	474090	23609 752854	43255 976340	90529 1236918	222788	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Ave	319580	13798 507147	28697 661801	57653 854172	142773	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	468491	22841 738394	44311 971251	91627 1209987	229017	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	396709	18960 634737	41189 871911	76864 1129761	208480	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCBd 4	Ave	822752	42340 1227452	85221 1631277	177706 1972501	432947	1000	50.0 1500	100 2000	200 2500	500
Indene	DCBd 4	Ave	1723459	84770 2702223	166238 3498920	348608 4247024	865952	2000	100 3000	200 4000	400 5000	1000
3 & 4 Methylphenol	DCBd 4	Ave	414231	18250 656888	37339 887511	74290 1180320	184011	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodi-n-propylamine	DCBd 4	Ave	407385	18103 603371	37904 788481	84673 964649	206080	1000	50.0 1500	100 2000	200 2500	500
Acetophenone	DCBd 4	Ave	722464	32013 1080216	66533 1400523	139354 1755906	348450	1000	50.0 1500	100 2000	200 2500	500
Hexachloroethane	DCBd 4	Ave	192797	9189 299579	18058 395066	37726 502144	90449	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene	NPT	Ave	574238	27112 882980	55561 1155052	112992 1395940	290100	1000	50.0 1500	100 2000	200 2500	500
Isophorone	NPT	Ave	1038796	43982 1538844	90334 2011362	207088 2481207	522714	1000	50.0 1500	100 2000	200 2500	500
2,4-Dimethylphenol	NPT	Ave	493941	19683 762901	39035 1008306	85108 1286938	212333	1000	50.0 1500	100 2000	200 2500	500
2-Nitrophenol	NPT	Ave	285714	10524 440780	22935 582398	50870 725842	136539	1000	50.0 1500	100 2000	200 2500	500
Benzoic acid	NPT	Lin1	566121	+++++ 890660	11477 1167151	76069 1421175	244345	2000	+++++ 3000	200 4000	400 5000	1000
Bis(2-chloroethoxy)methane	NPT	Ave	618296	28268 930995	58618 1224477	130398 1499091	320615	1000	50.0 1500	100 2000	200 2500	500
2,4-Dichlorophenol	NPT	Ave	345105	12958 545444	28038 730806	58470 940849	146819	1000	50.0 1500	100 2000	200 2500	500
1,2,4-Trichlorobenzene	NPT	Ave	386452	19324 628816	38837 850275	78679 1046606	200712	1000	50.0 1500	100 2000	200 2500	500
Naphthalene	NPT	Ave	14869 1533003	71709 2372985	146114 3090221	299562 3808050	768510	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Chloroaniline	NPT	Ave	844267	33527 1217919	67769 1511050	158403 1861572	413718	1000	50.0 1500	100 2000	200 2500	500
2,6-Dichlorophenol	NPT	Ave	391400	14981 604876	30608 805462	70071 1005129	179474	1000	50.0 1500	100 2000	200 2500	500
Hexachlorobutadiene	NPT	Ave	199516	9804 328216	20331 431905	40542 544664	102401	1000	50.0 1500	100 2000	200 2500	500
Caprolactam	NPT	Ave	2768 347263	14972 513327	31423 656044	69566 816022	169523	20.0 2000	100 3000	200 4000	400 5000	1000
4-Chloro-3-methylphenol	NPT	Ave	444198	13701 668658	28269 866342	74912 1082801	213544	1000	50.0 1500	100 2000	200 2500	500
2-Methylnaphthalene	NPT	Ave	8880 1051159	42880 1566946	91144 2082417	201566 2556396	511150	10.0 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8909 997800	41652 1487990	87303 1956395	195768 2440334	496456	10.0 1000	50.0 1500	100 2000	200 2500	500
Hexachlorocyclopentadiene	ANT	Ave	 252593	9053 393734	19226 533153	43278 692835	118471	 1000	50.0 1500	100 2000	200 2500	500
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 401876	14767 620567	30732 825504	70897 1046274	184020	 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Trichlorophenol	ANT	Ave	 275275	8758 436209	19559 567676	50776 714173	135952	 1000	50.0 1500	100 2000	200 2500	500
2,4,5-Trichlorophenol	ANT	Lin1	 289390	5832 435413	14318 560141	49312 716316	141700	 1000	50.0 1500	100 2000	200 2500	500
1,1'-Biphenyl	ANT	Ave	10232 1210173	50395 1815376	110126 2402217	247729 2991472	591483	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Chloronaphthalene	ANT	Ave	7700 912470	37469 1391207	81493 1816907	182304 2287963	462573	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Nitroaniline	ANT	Ave	 332027	14007 494055	28166 629692	66252 784016	164748	 1000	50.0 1500	100 2000	200 2500	500
Dimethyl phthalate	ANT	Ave	 1026194	48379 1559532	97737 2012202	210197 2514214	512508	 1000	50.0 1500	100 2000	200 2500	500
1,3-Dinitrobenzene	ANT	Ave	 173535	5704 266178	13253 344224	31894 440231	83823	 1000	50.0 1500	100 2000	200 2500	500
2,6-Dinitrotoluene	ANT	Ave	 244673	10216 369926	21141 473888	47737 595887	115482	 1000	50.0 1500	100 2000	200 2500	500
Acenaphthylene	ANT	Ave	10068 1360830	58285 2048414	121559 2669234	278916 3321250	676129	10.0 1000	50.0 1500	100 2000	200 2500	500
3-Nitroaniline	ANT	Ave	 249177	9784 340637	20857 418632	53347 534463	126790	 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrophenol	ANT	Lin1	 293884	+++++ 472863	12475 629552	42068 831526	130717	 2000	+++++ 3000	200 4000	400 5000	1000
Acenaphthene	ANT	Ave	7634 972972	42185 1467621	89177 1942396	195898 2408554	478027	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Nitrophenol	ANT	Ave	 318293	+++++ 461137	22307 615015	59259 759627	145082	 2000	+++++ 3000	200 4000	400 5000	1000
2,4-Dinitrotoluene	ANT	Ave	 304135	11513 462040	26892 590852	61016 748455	152141	 1000	50.0 1500	100 2000	200 2500	500
Dibenzofuran	ANT	Ave	10091 1280958	59689 1957650	120947 2515311	259810 3143419	637787	10.0 1000	50.0 1500	100 2000	200 2500	500
2,3,4,6-Tetrachlorophenol	ANT	Ave	 223451	8088 341743	18202 442436	43057 574847	107218	 1000	50.0 1500	100 2000	200 2500	500
Hexadecane	ANT	Ave	 779235	35357 1141128	76391 1465209	165573 1791851	397530	 1000	50.0 1500	100 2000	200 2500	500
Diethyl phthalate	ANT	Ave	 1074915	52023 1594796	104710 2088743	220215 2602942	539144	 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	480593	21897 739237	45153 960466	94049 1216392	234622	1000	50.0 1500	100 2000	200 2500	500
4-Nitroaniline	ANT	Ave	218323	11008 290993	23680 371237	50482 449750	106564	1000	50.0 1500	100 2000	200 2500	500
Fluorene	ANT	Ave	9409 1075972	48683 1642358	95293 2135413	211081 2682209	523869	10.0 1000	50.0 1500	100 2000	200 2500	500
4,6-Dinitro-2-methylphenol	PHN	Lin1	349090	+++++ 554073	20293 729042	56711 954649	153252	2000	+++++ 3000	200 4000	400 5000	1000
Diphenylamine	PHN	Ave	766533	34277 1138218	70129 1489628	155569 1875830	380035	850	42.5 1275	85.0 1700	170 2125	425
N-Nitrosodiphenylamine	PHN	Ave	766533	34277 1138218	70129 1489628	155569 1875830	380035	1000	50.0 1500	100 2000	200 2500	500
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1215953	55932 1786826	115713 2330085	251061 2807754	621283	1000	50.0 1500	100 2000	200 2500	500
Azobenzene	PHN	Ave	1215993	56685 1787849	116635 2330085	250788 2807745	621057	1000	50.0 1500	100 2000	200 2500	500
4-Bromophenyl phenyl ether	PHN	Ave	264049	12262 414012	24168 547602	53623 696552	131186	1000	50.0 1500	100 2000	200 2500	500
Atrazine	PHN	Ave	4724 584021	24117 896937	51221 1176469	111429 1418855	268757	20.0 2000	100 3000	200 4000	400 5000	1000
Hexachlorobenzene	PHN	Ave	2730 293308	12915 461364	25370 605802	56356 784336	140723	10.0 1000	50.0 1500	100 2000	200 2500	500
n-Octadecane	PHN	Ave	808182	36434 1176953	75900 1549272	171795 1879494	405666	1000	50.0 1500	100 2000	200 2500	500
Pentachlorophenol	PHN	Lin1	363171	11193 579399	24954 799094	64131 1039832	164208	2000	100 3000	200 4000	400 5000	1000
Phenanthrene	PHN	Ave	13478 1403158	65758 2113428	135005 2785251	300763 3512785	700913	10.0 1000	50.0 1500	100 2000	200 2500	500
Anthracene	PHN	Ave	13394 1470992	68268 2237002	135051 2931027	299425 3672872	738477	10.0 1000	50.0 1500	100 2000	200 2500	500
Carbazole	PHN	Ave	1193091	63375 1852646	125459 2226665	263558 2876243	598973	1000	50.0 1500	100 2000	200 2500	500
Di-n-butyl phthalate	PHN	Ave	1776872	80027 2683029	161829 3441848	355788 4259322	864124	1000	50.0 1500	100 2000	200 2500	500
Fluoranthene	PHN	Ave	12254 1438736	66040 2198929	134485 2800392	284389 3529863	695142	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzidine	CRY	Lin1	1301940	28954 2247977	78143 2540042	210090 3327912	590590	2000	100 3000	200 4000	400 5000	1000
Pyrene	CRY	Ave	13206 1486443	67567 2204362	136363 2778143	289571 3560007	703378	10.0 1000	50.0 1500	100 2000	200 2500	500
Butyl benzyl phthalate	CRY	Ave	784349	30801 1188792	66022 1561037	148147 1972817	378141	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1094096	40786 1661202	84605 2175899	204197 2725601	516162	1000	50.0 1500	100 2000	200 2500	500
3,3'-Dichlorobenzidine	CRY	Ave	939491	38008 1513478	86872 1812794	205877 2300554	487103	2000	100 3000	200 4000	400 5000	1000
Benzo[a]anthracene	CRY	Ave	11799 1394081	58542 2158363	118572 2749920	267458 3495613	665760	10.0 1000	50.0 1500	100 2000	200 2500	500
Chrysene	CRY	Ave	12352 1357071	60075 2081356	119627 2602201	272234 3342415	651586	10.0 1000	50.0 1500	100 2000	200 2500	500
Di-n-octyl phthalate	PRY	Ave	1828789	57212 2853445	135108 3672807	333723 4669197	861676	1000	50.0 1500	100 2000	200 2500	500
Benzo[b]fluoranthene	PRY	Ave	10837 1336490	55392 2132853	111257 2763821	262457 3418856	632247	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[k]fluoranthene	PRY	Ave	10013 1458099	58551 2205391	126384 2697504	279026 3673234	696616	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[a]pyrene	PRY	Ave	9200 1297188	51303 2054191	105649 2626862	251582 3329443	618870	10.0 1000	50.0 1500	100 2000	200 2500	500
Indeno[1,2,3-cd]pyrene	PRY	Ave	11053 1500264	59048 2398384	119004 3071787	278490 3750057	700077	10.0 1000	50.0 1500	100 2000	200 2500	500
Dibenz(a,h)anthracene	PRY	Ave	9262 1270891	48079 2045465	102016 2654218	232339 3232677	606424	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[g,h,i]perylene	PRY	Ave	8880 1195329	49222 1919312	105311 2357488	235669 3000470	588415	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorophenol (Surr)	DCBd 4	Ave	241207	11651 355282	22080 513635	44510 607994	114405	1000	50.0 1500	100 2000	200 2500	500
Phenol-d5 (Surr)	DCBd 4	Ave	371995	23366 580064	43724 828140	81494 1019770	222920	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene-d5 (Surr)	NPT	Ave	5346 573630	27171 886215	53809 1156816	111856 1411799	293414	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorobiphenyl (Surr)	ANT	Ave	8556 1003489	44366 1538068	92706 2044633	207217 2518845	491056	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Tribromophenol (Surr)	ANT	Ave	126301	4762 197682	10246 253562	25033 337150	62220	1000	50.0 1500	100 2000	200 2500	500
Terphenyl-d14 (Surr)	CRY	Ave	8583 982781	42502 1525273	86548 1978344	197909 2543700	484412	10.0 1000	50.0 1500	100 2000	200 2500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-333230/11 Calibration Date: 06/25/2018 11:32

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80625011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2815		0.995	1.00	-0.5	30.0
N-Nitrosodimethylamine	Ave	0.9283	0.9469		1.02	1.00	2.0	30.0
Pyridine	Ave	0.8277	0.8590		2.08	2.00	3.8	30.0
Benzaldehyde	Qua		1.088	0.0100	2.10	2.00	4.9	30.0
Phenol	Ave	1.665	1.648	0.8000	0.990	1.00	-1.0	30.0
Aniline	Ave	2.721	2.818		1.04	1.00	3.6	30.0
Bis(2-chloroethyl)ether	Ave	1.860	1.796	0.7000	0.965	1.00	-3.5	30.0
2-Chlorophenol	Ave	1.501	1.399	0.8000	0.932	1.00	-6.8	30.0
n-Decane	Ave	1.687	1.752		1.04	1.00	3.9	30.0
1,3-Dichlorobenzene	Ave	1.632	1.618		0.991	1.00	-0.9	30.0
1,4-Dichlorobenzene	Ave	1.687	1.696		1.01	1.00	0.6	30.0
Benzyl alcohol	Ave	1.105	1.157		1.05	1.00	4.7	30.0
1,2-Dichlorobenzene	Ave	1.681	1.652		0.983	1.00	-1.7	30.0
2-Methylphenol	Ave	1.481	1.515	0.7000	1.02	1.00	2.2	30.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.861		0.949	1.00	-5.1	30.0
Indene	Ave	3.101	2.921		1.88	2.00	-5.8	30.0
3 & 4 Methylphenol	Ave	1.453	1.510		1.04	1.00	3.9	30.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.418	0.5000	0.996	1.00	-0.4	30.0
Acetophenone	Ave	2.490	2.561	0.0100	1.03	1.00	2.8	30.0
Hexachloroethane	Ave	0.6840	0.6695	0.3000	0.979	1.00	-2.1	30.0
Nitrobenzene	Ave	0.4110	0.4110	0.2000	1.00	1.00	-0.0	30.0
Isophorone	Ave	0.7168	0.7428	0.4000	1.04	1.00	3.6	30.0
2,4-Dimethylphenol	Ave	0.3302	0.3310	0.2000	1.00	1.00	0.2	30.0
2-Nitrophenol	Ave	0.1922	0.1960	0.1000	1.02	1.00	2.0	30.0
Benzoic acid	Lin1		0.1708		1.75	2.00	-12.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4309	0.3000	0.973	1.00	-2.7	30.0
2,4-Dichlorophenol	Ave	0.2326	0.2357	0.2000	1.01	1.00	1.4	30.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.2862		0.983	1.00	-1.7	30.0
Naphthalene	Ave	1.097	1.072	0.7000	0.977	1.00	-2.3	30.0
4-Chloroaniline	Ave	0.5536	0.5868	0.0100	1.06	1.00	6.0	30.0
2,6-Dichlorophenol	Ave	0.2632	0.2681		1.02	1.00	1.9	30.0
Hexachlorobutadiene	Ave	0.1501	0.1505	0.0100	1.00	1.00	0.3	30.0
Caprolactam	Ave	0.1178	0.1167	0.0100	1.98	2.00	-1.0	30.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3074	0.2000	1.09	1.00	9.5	30.0
2-Methylnaphthalene	Ave	0.7131	0.7089	0.4000	0.994	1.00	-0.6	30.0
1-Methylnaphthalene	Ave	0.6864	0.6695		0.975	1.00	-2.5	30.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3667	0.0500	1.10	1.00	10.0	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5350	0.0100	1.02	1.00	1.8	30.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3745	0.2000	1.04	1.00	4.3	30.0
2,4,5-Trichlorophenol	Lin1		0.3920	0.2000	0.986	1.00	-1.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-333230/11 Calibration Date: 06/25/2018 11:32

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80625011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.675	1.603	0.0100	0.957	1.00	-4.3	30.0
2-Chloronaphthalene	Ave	1.265	1.239	0.8000	0.979	1.00	-2.1	30.0
2-Nitroaniline	Ave	0.4445	0.4508	0.0100	1.01	1.00	1.4	30.0
Dimethyl phthalate	Ave	1.434	1.378	0.0100	0.960	1.00	-4.0	30.0
1,3-Dinitrobenzene	Ave	0.2249	0.2352		1.05	1.00	4.6	30.0
2,6-Dinitrotoluene	Ave	0.3277	0.3241		0.989	1.00	-1.1	30.0
Acenaphthylene	Ave	1.855	1.993	0.9000	1.07	1.00	7.4	30.0
3-Nitroaniline	Ave	0.3224	0.3152	0.0100	0.978	1.00	-2.2	30.0
2,4-Dinitrophenol	Lin1		0.1844	0.0100	1.73	2.00	-13.7	30.0
4-Nitrophenol	Ave	0.2054	0.2044		1.99	2.00	-0.5	30.0
Acenaphthene	Ave	1.341	1.311	0.9000	0.978	1.00	-2.2	30.0
2,4-Dinitrotoluene	Ave	0.4095	0.4055	0.2000	0.990	1.00	-1.0	30.0
Dibenzofuran	Ave	1.788	1.732	0.8000	0.969	1.00	-3.1	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.2963	0.2925	0.0100	0.987	1.00	-1.3	30.0
Hexadecane	Ave	1.077	1.036		0.962	1.00	-3.8	30.0
Diethyl phthalate	Ave	1.504	1.439	0.0100	0.956	1.00	-4.4	30.0
4-Chlorophenyl phenyl ether	Ave	0.6675	0.6437	0.4000	0.964	1.00	-3.6	30.0
4-Nitroaniline	Ave	0.3012	0.2786	0.0100	0.925	1.00	-7.5	30.0
Fluorene	Ave	1.500	1.463	0.9000	0.975	1.00	-2.5	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1460	0.0100	1.95	2.00	-2.7	30.0
Diphenylamine	Ave	0.7132	0.7157		0.853	0.850	0.4	30.0
N-Nitrosodiphenylamine	Ave	0.6062	0.6084	0.0100	1.00	1.00	0.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9649	0.997		1.03	1.00	3.3	30.0
Azobenzene	Ave	0.9672	1.001		1.03	1.00	3.5	30.0
4-Bromophenyl phenyl ether	Ave	0.2153	0.2135	0.1000	0.991	1.00	-0.9	30.0
Atrazine	Ave	0.2230	0.2284	0.0100	2.05	2.00	2.4	30.0
Hexachlorobenzene	Ave	0.2338	0.2373	0.1000	1.02	1.00	1.5	30.0
n-Octadecane	Ave	0.6395	0.6487		1.01	1.00	1.4	30.0
Pentachlorophenol	Lin1		0.1490	0.0500	1.84	2.00	-8.2	30.0
Phenanthrene	Ave	1.140	1.112	0.7000	0.976	1.00	-2.4	30.0
Anthracene	Ave	1.176	1.160	0.7000	0.986	1.00	-1.4	30.0
Carbazole	Ave	0.9905	0.9237	0.0100	0.933	1.00	-6.7	30.0
Di-n-butyl phthalate	Ave	1.399	1.432	0.0100	1.02	1.00	2.4	30.0
Fluoranthene	Ave	1.130	1.176	0.6000	1.04	1.00	4.0	30.0
Benzidine	Lin1		0.5491		1.91	2.00	-4.5	30.0
Pyrene	Ave	1.259	1.237	0.6000	0.983	1.00	-1.7	30.0
Butyl benzyl phthalate	Ave	0.6552	0.6517	0.0100	0.995	1.00	-0.5	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8953	0.8939	0.0100	0.998	1.00	-0.2	30.0
3,3'-Dichlorobenzidine	Ave	0.4099	0.4024	0.0100	1.96	2.00	-1.8	30.0
Benzo[a]anthracene	Ave	1.173	1.160	0.8000	0.989	1.00	-1.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-333230/11 Calibration Date: 06/25/2018 11:32

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80625011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.161	1.135	0.7000	0.978	1.00	-2.2	30.0
Di-n-octyl phthalate	Ave	1.545	1.569	0.0100	1.02	1.00	1.5	30.0
Benzo[b]fluoranthene	Ave	1.187	1.200	0.7000	1.01	1.00	1.1	30.0
Benzo[k]fluoranthene	Ave	1.247	1.254	0.7000	1.01	1.00	0.6	30.0
Benzo[a]pyrene	Ave	1.125	1.146	0.7000	1.02	1.00	1.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.292	1.292	0.5000	1.00	1.00	-0.0	30.0
Dibenz(a,h)anthracene	Ave	1.097	1.116	0.4000	1.02	1.00	1.7	30.0
Benzo[g,h,i]perylene	Ave	1.056	1.031	0.5000	0.976	1.00	-2.4	30.0
2-Fluorophenol (Surr)	Ave	0.8449	0.8347		0.988	1.00	-1.2	30.0
Phenol-d5 (Surr)	Ave	1.504	1.575		1.05	1.00	4.7	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4091	0.4285		1.05	1.00	4.8	30.0
2-Fluorobiphenyl (Surr)	Ave	1.412	1.447		1.02	1.00	2.4	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1709	0.1758		1.03	1.00	2.8	30.0
Terphenyl-d14 (Surr)	Ave	0.8480	0.8811		1.04	1.00	3.9	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80702001.D DFTPP Injection Date: 07/02/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:36

Analysis Batch No.: 334308

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.5	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.9	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.0	
197	Less than 1.0% of mass 198	0.2	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	28.8	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	9.4	
442	40.0 - 110.0% of mass 198	66.3	
443	15.0 - 24.0% of mass 442	12.5	(18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334308/2	80702002.D	07/02/2018	07:22
	MB 240-334070/9-A	80702005.D	07/02/2018	08:41
	LCS 240-334070/10-A	80702006.D	07/02/2018	09:06

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334308/2 Calibration Date: 07/02/2018 07:22

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80702002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2843		1.01	1.00	0.5	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9047		0.975	1.00	-2.5	20.0
Pyridine	Ave	0.8277	0.8222		1.99	2.00	-0.7	20.0
Benzaldehyde	Qua		0.9530	0.0100	1.76	2.00	-11.8	20.0
Phenol	Ave	1.665	1.336	0.8000	0.803	1.00	-19.7	20.0
Aniline	Ave	2.721	2.806		1.03	1.00	3.1	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.885	0.7000	1.01	1.00	1.3	20.0
n-Decane	Ave	1.687	1.615		0.957	1.00	-4.3	20.0
2-Chlorophenol	Ave	1.501	1.387	0.8000	0.924	1.00	-7.6	20.0
1,3-Dichlorobenzene	Ave	1.632	1.667		1.02	1.00	2.1	20.0
1,4-Dichlorobenzene	Ave	1.687	1.730		1.03	1.00	2.6	20.0
Benzyl alcohol	Ave	1.105	1.195		1.08	1.00	8.2	20.0
1,2-Dichlorobenzene	Ave	1.681	1.731		1.03	1.00	3.0	20.0
2-Methylphenol	Ave	1.481	1.432	0.7000	0.967	1.00	-3.3	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	3.147		1.04	1.00	4.4	20.0
Indene	Ave	3.101	3.257		2.10	2.00	5.0	20.0
3 & 4 Methylphenol	Ave	1.453	1.508		1.04	1.00	3.8	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.521	0.5000	1.07	1.00	6.8	20.0
Acetophenone	Ave	2.490	2.734	0.0100	1.10	1.00	9.8	20.0
Hexachloroethane	Ave	0.6840	0.6812	0.3000	0.996	1.00	-0.4	20.0
Nitrobenzene	Ave	0.4110	0.4309	0.2000	1.05	1.00	4.8	20.0
Isophorone	Ave	0.7168	0.7598	0.4000	1.06	1.00	6.0	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3805	0.2000	1.15	1.00	15.3	20.0
2-Nitrophenol	Ave	0.1922	0.2106	0.1000	1.10	1.00	9.6	20.0
Benzoic acid	Lin1		0.1967		1.99	2.00	-0.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4407	0.3000	0.995	1.00	-0.5	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2622	0.2000	1.13	1.00	12.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3101		1.06	1.00	6.5	20.0
Naphthalene	Ave	1.097	1.135	0.7000	1.03	1.00	3.4	20.0
4-Chloroaniline	Ave	0.5536	0.5875	0.0100	1.06	1.00	6.1	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2998		1.14	1.00	13.9	20.0
Hexachlorobutadiene	Ave	0.1501	0.1671	0.0100	1.11	1.00	11.3	20.0
Caprolactam	Ave	0.1178	0.1197	0.0100	2.03	2.00	1.6	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3267	0.2000	1.16	1.00	16.3	20.0
2-Methylnaphthalene	Ave	0.7131	0.7638	0.4000	1.07	1.00	7.1	20.0
1-Methylnaphthalene	Ave	0.6864	0.7219		1.05	1.00	5.2	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3515	0.0500	1.05	1.00	5.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5873	0.0100	1.12	1.00	11.7	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.4055	0.2000	1.13	1.00	13.0	20.0
2,4,5-Trichlorophenol	Lin1		0.4162	0.2000	1.04	1.00	4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334308/2 | Calibration Date: 07/02/2018 07:22

Instrument ID: A4AG2 | Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 06/25/2018 11:07

Lab File ID: 80702002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.675	1.718	0.0100	1.03	1.00	2.6	20.0
2-Chloronaphthalene	Ave	1.265	1.301	0.8000	1.03	1.00	2.8	20.0
2-Nitroaniline	Ave	0.4445	0.4732	0.0100	1.06	1.00	6.5	20.0
Dimethyl phthalate	Ave	1.434	1.522	0.0100	1.06	1.00	6.1	20.0
1,3-Dinitrobenzene	Ave	0.2249	0.2515		1.12	1.00	11.8	20.0
2,6-Dinitrotoluene	Ave	0.3277	0.3496		1.07	1.00	6.7	20.0
Acenaphthylene	Ave	1.855	1.939	0.9000	1.05	1.00	4.5	20.0
3-Nitroaniline	Ave	0.3224	0.2655	0.0100	0.824	1.00	-17.6	20.0
2,4-Dinitrophenol	Lin1		0.2386	0.0100	2.19	2.00	9.5	20.0
Acenaphthene	Ave	1.341	1.386	0.9000	1.03	1.00	3.4	20.0
4-Nitrophenol	Ave	0.2054	0.2287		2.23	2.00	11.3	20.0
2,4-Dinitrotoluene	Ave	0.4095	0.4496	0.2000	1.10	1.00	9.8	20.0
Dibenzofuran	Ave	1.788	1.899	0.8000	1.06	1.00	6.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2963	0.3099	0.0100	1.05	1.00	4.6	20.0
Hexadecane	Ave	1.077	1.053		0.978	1.00	-2.2	20.0
Diethyl phthalate	Ave	1.504	1.549	0.0100	1.03	1.00	3.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6675	0.7163	0.4000	1.07	1.00	7.3	20.0
4-Nitroaniline	Ave	0.3012	0.3113	0.0100	1.03	1.00	3.4	20.0
Fluorene	Ave	1.500	1.570	0.9000	1.05	1.00	4.7	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1423	0.0100	1.90	2.00	-5.0	20.0
Diphenylamine	Ave	0.7132	0.7645		0.911	0.850	7.2	20.0
N-Nitrosodiphenylamine	Ave	0.6062	0.6498	0.0100	1.07	1.00	7.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9649	1.009		1.04	1.00	4.6	20.0
Azobenzene	Ave	0.9672	1.009		1.04	1.00	4.3	20.0
4-Bromophenyl phenyl ether	Ave	0.2153	0.2394	0.1000	1.11	1.00	11.2	20.0
Atrazine	Ave	0.2230	0.2587	0.0100	2.32	2.00	16.0	20.0
Hexachlorobenzene	Ave	0.2338	0.2698	0.1000	1.15	1.00	15.4	20.0
n-Octadecane	Ave	0.6395	0.6324		0.989	1.00	-1.1	20.0
Pentachlorophenol	Lin1		0.1675	0.0500	2.06	2.00	2.8	20.0
Phenanthrene	Ave	1.140	1.185	0.7000	1.04	1.00	3.9	20.0
Anthracene	Ave	1.176	1.228	0.7000	1.04	1.00	4.4	20.0
Carbazole	Ave	0.9905	1.042	0.0100	1.05	1.00	5.2	20.0
Di-n-butyl phthalate	Ave	1.399	1.463	0.0100	1.05	1.00	4.6	20.0
Fluoranthene	Ave	1.130	1.240	0.6000	1.10	1.00	9.7	20.0
Benzidine	Lin1		0.4340		1.52	2.00	-23.8*	20.0
Pyrene	Ave	1.259	1.268	0.6000	1.01	1.00	0.7	20.0
Butyl benzyl phthalate	Ave	0.6552	0.6453	0.0100	0.985	1.00	-1.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8953	0.8916	0.0100	0.996	1.00	-0.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4099	0.4115	0.0100	2.01	2.00	0.4	20.0
Benzo[a]anthracene	Ave	1.173	1.204	0.8000	1.03	1.00	2.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334308/2 Calibration Date: 07/02/2018 07:22

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80702002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.161	1.172	0.7000	1.01	1.00	0.9	20.0
Di-n-octyl phthalate	Ave	1.545	1.569	0.0100	1.02	1.00	1.5	20.0
Benzo[b]fluoranthene	Ave	1.187	1.264	0.7000	1.06	1.00	6.5	20.0
Benzo[k]fluoranthene	Ave	1.247	1.274	0.7000	1.02	1.00	2.2	20.0
Benzo[a]pyrene	Ave	1.125	1.187	0.7000	1.05	1.00	5.4	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.292	1.362	0.5000	1.05	1.00	5.4	20.0
Dibenz(a,h)anthracene	Ave	1.097	1.168	0.4000	1.06	1.00	6.5	20.0
Benzo[g,h,i]perylene	Ave	1.056	1.116	0.5000	1.06	1.00	5.7	20.0
2-Fluorophenol (Surr)	Ave	0.8449	0.8010		0.948	1.00	-5.2	20.0
Phenol-d5 (Surr)	Ave	1.504	1.223		0.813	1.00	-18.7	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4091	0.4271		1.04	1.00	4.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.412	1.473		1.04	1.00	4.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1709	0.1895		1.11	1.00	10.8	20.0
Terphenyl-d14 (Surr)	Ave	0.8480	0.8741		1.03	1.00	3.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80703001.D DFTPP Injection Date: 07/03/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:25

Analysis Batch No.: 334518

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.2	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	28.9	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.6	
442	40.0 - 110.0% of mass 198	71.8	
443	15.0 - 24.0% of mass 442	13.6	(19.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334518/2	80703002.D	07/03/2018	07:10
MSA-MW-51D-062718	240-97836-2	80703013.D	07/03/2018	12:42
MSA-MW-51I-062718	240-97836-3	80703014.D	07/03/2018	13:07
MSA-MW-51S-062718	240-97836-4	80703015.D	07/03/2018	13:33
MSA-MW-47S-062718	240-97836-5	80703016.D	07/03/2018	13:59
MSA-MW-47D-062718	240-97836-7	80703018.D	07/03/2018	14:50

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334518/2 Calibration Date: 07/03/2018 07:10

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80703002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.3104		1.10	1.00	9.7	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9653		1.04	1.00	4.0	20.0
Pyridine	Ave	0.8277	0.9331		2.25	2.00	12.7	20.0
Benzaldehyde	Qua		0.9681	0.0100	1.80	2.00	-10.0	20.0
Phenol	Ave	1.665	1.452	0.8000	0.872	1.00	-12.8	20.0
Aniline	Ave	2.721	2.589		0.951	1.00	-4.9	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.897	0.7000	1.02	1.00	2.0	20.0
2-Chlorophenol	Ave	1.501	1.418	0.8000	0.944	1.00	-5.6	20.0
n-Decane	Ave	1.687	1.766		1.05	1.00	4.7	20.0
1,3-Dichlorobenzene	Ave	1.632	1.739		1.07	1.00	6.5	20.0
1,4-Dichlorobenzene	Ave	1.687	1.769		1.05	1.00	4.9	20.0
Benzyl alcohol	Ave	1.105	1.139		1.03	1.00	3.0	20.0
1,2-Dichlorobenzene	Ave	1.681	1.735		1.03	1.00	3.2	20.0
2-Methylphenol	Ave	1.481	1.492	0.7000	1.01	1.00	0.7	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.894		0.960	1.00	-4.0	20.0
Indene	Ave	3.101	3.104		2.00	2.00	0.1	20.0
3 & 4 Methylphenol	Ave	1.453	1.559		1.07	1.00	7.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.418	0.5000	0.996	1.00	-0.4	20.0
Acetophenone	Ave	2.490	2.482	0.0100	0.997	1.00	-0.3	20.0
Hexachloroethane	Ave	0.6840	0.6881	0.3000	1.01	1.00	0.6	20.0
Nitrobenzene	Ave	0.4110	0.4384	0.2000	1.07	1.00	6.7	20.0
Isophorone	Ave	0.7168	0.7616	0.4000	1.06	1.00	6.2	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3647	0.2000	1.10	1.00	10.5	20.0
2-Nitrophenol	Ave	0.1922	0.2104	0.1000	1.09	1.00	9.5	20.0
Benzoic acid	Lin1		0.1748		1.78	2.00	-10.8	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4547	0.3000	1.03	1.00	2.7	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2700	0.2000	1.16	1.00	16.1	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3189		1.09	1.00	9.5	20.0
Naphthalene	Ave	1.097	1.174	0.7000	1.07	1.00	6.9	20.0
4-Chloroaniline	Ave	0.5536	0.6211	0.0100	1.12	1.00	12.2	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2977		1.13	1.00	13.1	20.0
Hexachlorobutadiene	Ave	0.1501	0.1703	0.0100	1.13	1.00	13.4	20.0
Caprolactam	Ave	0.1178	0.1211	0.0100	2.06	2.00	2.8	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3322	0.2000	1.18	1.00	18.3	20.0
2-Methylnaphthalene	Ave	0.7131	0.7900	0.4000	1.11	1.00	10.8	20.0
1-Methylnaphthalene	Ave	0.6864	0.7427		1.08	1.00	8.2	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3444	0.0500	1.03	1.00	3.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.6003	0.0100	1.14	1.00	14.2	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3977	0.2000	1.11	1.00	10.8	20.0
2,4,5-Trichlorophenol	Lin1		0.4130	0.2000	1.04	1.00	3.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334518/2 Calibration Date: 07/03/2018 07:10

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80703002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.675	1.749	0.0100	1.04	1.00	4.5	20.0
2-Chloronaphthalene	Ave	1.265	1.331	0.8000	1.05	1.00	5.3	20.0
2-Nitroaniline	Ave	0.4445	0.4799	0.0100	1.08	1.00	8.0	20.0
Dimethyl phthalate	Ave	1.434	1.521	0.0100	1.06	1.00	6.0	20.0
1,3-Dinitrobenzene	Ave	0.2249	0.2533		1.13	1.00	12.6	20.0
2,6-Dinitrotoluene	Ave	0.3277	0.3571		1.09	1.00	9.0	20.0
Acenaphthylene	Ave	1.855	1.963	0.9000	1.06	1.00	5.8	20.0
3-Nitroaniline	Ave	0.3224	0.3127	0.0100	0.970	1.00	-3.0	20.0
2,4-Dinitrophenol	Lin1		0.2275	0.0100	2.10	2.00	4.8	20.0
Acenaphthene	Ave	1.341	1.408	0.9000	1.05	1.00	5.0	20.0
4-Nitrophenol	Ave	0.2054	0.2208		2.15	2.00	7.5	20.0
2,4-Dinitrotoluene	Ave	0.4095	0.4394	0.2000	1.07	1.00	7.3	20.0
Dibenzofuran	Ave	1.788	1.901	0.8000	1.06	1.00	6.3	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2963	0.3056	0.0100	1.03	1.00	3.1	20.0
Hexadecane	Ave	1.077	1.107		1.03	1.00	2.8	20.0
Diethyl phthalate	Ave	1.504	1.566	0.0100	1.04	1.00	4.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.6675	0.7289	0.4000	1.09	1.00	9.2	20.0
4-Nitroaniline	Ave	0.3012	0.3053	0.0100	1.01	1.00	1.4	20.0
Fluorene	Ave	1.500	1.584	0.9000	1.06	1.00	5.6	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1381	0.0100	1.85	2.00	-7.7	20.0
Diphenylamine	Ave	0.7132	0.7686		0.916	0.850	7.8	20.0
N-Nitrosodiphenylamine	Ave	0.6062	0.6533	0.0100	1.08	1.00	7.8	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9649	1.015		1.05	1.00	5.2	20.0
Azobenzene	Ave	0.9672	1.016		1.05	1.00	5.0	20.0
4-Bromophenyl phenyl ether	Ave	0.2153	0.2403	0.1000	1.12	1.00	11.6	20.0
Atrazine	Ave	0.2230	0.2564	0.0100	2.30	2.00	15.0	20.0
Hexachlorobenzene	Ave	0.2338	0.2715	0.1000	1.16	1.00	16.1	20.0
n-Octadecane	Ave	0.6395	0.6541		1.02	1.00	2.3	20.0
Pentachlorophenol	Lin1		0.1594	0.0500	1.96	2.00	-2.0	20.0
Phenanthrene	Ave	1.140	1.195	0.7000	1.05	1.00	4.8	20.0
Anthracene	Ave	1.176	1.257	0.7000	1.07	1.00	6.9	20.0
Carbazole	Ave	0.9905	1.067	0.0100	1.08	1.00	7.7	20.0
Di-n-butyl phthalate	Ave	1.399	1.470	0.0100	1.05	1.00	5.1	20.0
Fluoranthene	Ave	1.130	1.234	0.6000	1.09	1.00	9.2	20.0
Benzidine	Lin1		0.5288		1.84	2.00	-7.9	20.0
Pyrene	Ave	1.259	1.237	0.6000	0.983	1.00	-1.7	20.0
Butyl benzyl phthalate	Ave	0.6552	0.6395	0.0100	0.976	1.00	-2.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8953	0.8797	0.0100	0.983	1.00	-1.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4099	0.4156	0.0100	2.03	2.00	1.4	20.0
Benzo[a]anthracene	Ave	1.173	1.208	0.8000	1.03	1.00	3.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334518/2 Calibration Date: 07/03/2018 07:10

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80703002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.161	1.167	0.7000	1.01	1.00	0.5	20.0
Di-n-octyl phthalate	Ave	1.545	1.526	0.0100	0.988	1.00	-1.2	20.0
Benzo[b]fluoranthene	Ave	1.187	1.220	0.7000	1.03	1.00	2.8	20.0
Benzo[k]fluoranthene	Ave	1.247	1.287	0.7000	1.03	1.00	3.2	20.0
Benzo[a]pyrene	Ave	1.125	1.188	0.7000	1.06	1.00	5.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.292	1.384	0.5000	1.07	1.00	7.2	20.0
Dibenz(a,h)anthracene	Ave	1.097	1.193	0.4000	1.09	1.00	8.8	20.0
Benzo[g,h,i]perylene	Ave	1.056	1.151	0.5000	1.09	1.00	9.0	20.0
2-Fluorophenol (Surr)	Ave	0.8449	0.9159		1.08	1.00	8.4	20.0
Phenol-d5 (Surr)	Ave	1.504	1.330		0.884	1.00	-11.6	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4091	0.4404		1.08	1.00	7.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.412	1.503		1.06	1.00	6.4	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1709	0.1769		1.04	1.00	3.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8480	0.8657		1.02	1.00	2.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80705001.D DFTPP Injection Date: 07/05/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:27

Analysis Batch No.: 334754

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	48.1	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.0	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	28.4	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.3	
442	40.0 - 110.0% of mass 198	69.9	
443	15.0 - 24.0% of mass 442	13.8	(19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-334754/2	80705002.D	07/05/2018	06:45
	STD6 240-334754/3	80705003.D	07/05/2018	07:10
MSA-MW-47I-062718	240-97836-6	80705022.D	07/05/2018	15:17

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334754/2 Calibration Date: 07/05/2018 06:45

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80705002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2829	0.2272		0.803	1.00	-19.7	20.0
N-Nitrosodimethylamine	Ave	0.9283	0.9121		0.983	1.00	-1.7	20.0
Pyridine	Ave	0.8277	0.7315		1.77	2.00	-11.6	20.0
Benzaldehyde	Qua		0.8859	0.0100	1.61	2.00	-19.6	20.0
Phenol	Ave	1.665	1.478	0.8000	0.888	1.00	-11.2	20.0
Aniline	Ave	2.721	2.582		0.949	1.00	-5.1	20.0
Bis(2-chloroethyl)ether	Ave	1.860	1.627	0.7000	0.874	1.00	-12.6	20.0
n-Decane	Ave	1.687	1.575		0.934	1.00	-6.6	20.0
2-Chlorophenol	Ave	1.501	1.416	0.8000	0.943	1.00	-5.7	20.0
1,3-Dichlorobenzene	Ave	1.632	1.653		1.01	1.00	1.3	20.0
1,4-Dichlorobenzene	Ave	1.687	1.718		1.02	1.00	1.9	20.0
Benzyl alcohol	Ave	1.105	1.059		0.959	1.00	-4.1	20.0
1,2-Dichlorobenzene	Ave	1.681	1.678		0.998	1.00	-0.2	20.0
2-Methylphenol	Ave	1.481	1.459	0.7000	0.985	1.00	-1.5	20.0
bis (2-chloroisopropyl) ether	Ave	3.015	2.561		0.849	1.00	-15.1	20.0
Indene	Ave	3.101	2.947		1.90	2.00	-5.0	20.0
3 & 4 Methylphenol	Ave	1.453	1.514		1.04	1.00	4.2	20.0
N-Nitrosodi-n-propylamine	Ave	1.423	1.252	0.5000	0.880	1.00	-12.0	20.0
Acetophenone	Ave	2.490	2.279	0.0100	0.915	1.00	-8.5	20.0
Hexachloroethane	Ave	0.6840	0.6673	0.3000	0.976	1.00	-2.4	20.0
Nitrobenzene	Ave	0.4110	0.4232	0.2000	1.03	1.00	3.0	20.0
Isophorone	Ave	0.7168	0.7239	0.4000	1.01	1.00	1.0	20.0
2,4-Dimethylphenol	Ave	0.3302	0.3715	0.2000	1.13	1.00	12.5	20.0
2-Nitrophenol	Ave	0.1922	0.2029	0.1000	1.06	1.00	5.6	20.0
Benzoic acid	Lin1		0.1352		1.41	2.00	-29.3*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4430	0.4335	0.3000	0.979	1.00	-2.1	20.0
2,4-Dichlorophenol	Ave	0.2326	0.2733	0.2000	1.18	1.00	17.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2913	0.3185		1.09	1.00	9.3	20.0
Naphthalene	Ave	1.097	1.125	0.7000	1.02	1.00	2.5	20.0
4-Chloroaniline	Ave	0.5536	0.5849	0.0100	1.06	1.00	5.6	20.0
2,6-Dichlorophenol	Ave	0.2632	0.2936		1.12	1.00	11.5	20.0
Hexachlorobutadiene	Ave	0.1501	0.1695	0.0100	1.13	1.00	12.9	20.0
Caprolactam	Ave	0.1178	0.1101	0.0100	1.87	2.00	-6.5	20.0
4-Chloro-3-methylphenol	Ave	0.2809	0.3100	0.2000	1.10	1.00	10.4	20.0
2-Methylnaphthalene	Ave	0.7131	0.7640	0.4000	1.07	1.00	7.1	20.0
1-Methylnaphthalene	Ave	0.6864	0.7129		1.04	1.00	3.9	20.0
Hexachlorocyclopentadiene	Ave	0.3335	0.3260	0.0500	0.978	1.00	-2.2	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5256	0.5899	0.0100	1.12	1.00	12.2	20.0
2,4,6-Trichlorophenol	Ave	0.3589	0.3780	0.2000	1.05	1.00	5.3	20.0
2,4,5-Trichlorophenol	Lin1		0.3887	0.2000	0.978	1.00	-2.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334754/2 Calibration Date: 07/05/2018 06:45

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80705002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.675	1.723	0.0100	1.03	1.00	2.9	20.0
2-Chloronaphthalene	Ave	1.265	1.310	0.8000	1.04	1.00	3.6	20.0
2-Nitroaniline	Ave	0.4445	0.4526	0.0100	1.02	1.00	1.8	20.0
Dimethyl phthalate	Ave	1.434	1.490	0.0100	1.04	1.00	3.9	20.0
1,3-Dinitrobenzene	Ave	0.2249	0.2482		1.10	1.00	10.3	20.0
2,6-Dinitrotoluene	Ave	0.3277	0.3471		1.06	1.00	5.9	20.0
Acenaphthylene	Ave	1.855	1.914	0.9000	1.03	1.00	3.1	20.0
3-Nitroaniline	Ave	0.3224	0.2998	0.0100	0.930	1.00	-7.0	20.0
2,4-Dinitrophenol	Lin1		0.2000	0.0100	1.86	2.00	-7.0	20.0
Acenaphthene	Ave	1.341	1.380	0.9000	1.03	1.00	2.9	20.0
4-Nitrophenol	Ave	0.2054	0.2079		2.02	2.00	1.2	20.0
2,4-Dinitrotoluene	Ave	0.4095	0.4332	0.2000	1.06	1.00	5.8	20.0
Dibenzofuran	Ave	1.788	1.852	0.8000	1.04	1.00	3.6	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2963	0.2750	0.0100	0.928	1.00	-7.2	20.0
Hexadecane	Ave	1.077	1.044		0.969	1.00	-3.1	20.0
Diethyl phthalate	Ave	1.504	1.511	0.0100	1.00	1.00	0.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6675	0.7122	0.4000	1.07	1.00	6.7	20.0
4-Nitroaniline	Ave	0.3012	0.3078	0.0100	1.02	1.00	2.2	20.0
Fluorene	Ave	1.500	1.534	0.9000	1.02	1.00	2.3	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1301	0.0100	1.75	2.00	-12.7	20.0
Diphenylamine	Ave	0.7132	0.7495		0.893	0.850	5.1	20.0
N-Nitrosodiphenylamine	Ave	0.6062	0.6371	0.0100	1.05	1.00	5.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9649	0.9667		0.999	1.00	0.2	20.0
Azobenzene	Ave	0.9672	0.9667		0.999	1.00	-0.0	20.0
4-Bromophenyl phenyl ether	Ave	0.2153	0.2355	0.1000	1.09	1.00	9.4	20.0
Atrazine	Ave	0.2230	0.2543	0.0100	2.28	2.00	14.0	20.0
Hexachlorobenzene	Ave	0.2338	0.2632	0.1000	1.13	1.00	12.6	20.0
n-Octadecane	Ave	0.6395	0.6068		0.949	1.00	-5.1	20.0
Pentachlorophenol	Lin1		0.1314	0.0500	1.63	2.00	-18.6	20.0
Phenanthrene	Ave	1.140	1.149	0.7000	1.01	1.00	0.8	20.0
Anthracene	Ave	1.176	1.212	0.7000	1.03	1.00	3.0	20.0
Carbazole	Ave	0.9905	0.9880	0.0100	0.998	1.00	-0.2	20.0
Di-n-butyl phthalate	Ave	1.399	1.415	0.0100	1.01	1.00	1.2	20.0
Fluoranthene	Ave	1.130	1.205	0.6000	1.07	1.00	6.7	20.0
Benzidine	Lin1		0.3629		1.29	2.00	-35.7*	20.0
Pyrene	Ave	1.259	1.250	0.6000	0.993	1.00	-0.7	20.0
Butyl benzyl phthalate	Ave	0.6552	0.6370	0.0100	0.972	1.00	-2.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8953	0.8706	0.0100	0.972	1.00	-2.8	20.0
3,3'-Dichlorobenzidine	Ave	0.4099	0.3775	0.0100	1.84	2.00	-7.9	20.0
Benzo[a]anthracene	Ave	1.173	1.195	0.8000	1.02	1.00	1.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-334754/2 Calibration Date: 07/05/2018 06:45

Instrument ID: A4AG2 Calib Start Date: 06/25/2018 07:50

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 06/25/2018 11:07

Lab File ID: 80705002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.161	1.155	0.7000	0.995	1.00	-0.5	20.0
Di-n-octyl phthalate	Ave	1.545	1.540	0.0100	0.996	1.00	-0.4	20.0
Benzo[b]fluoranthene	Ave	1.187	1.199	0.7000	1.01	1.00	1.0	20.0
Benzo[k]fluoranthene	Ave	1.247	1.322	0.7000	1.06	1.00	6.0	20.0
Benzo[a]pyrene	Ave	1.125	1.182	0.7000	1.05	1.00	5.0	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.292	1.353	0.5000	1.05	1.00	4.8	20.0
Dibenz(a,h)anthracene	Ave	1.097	1.130	0.4000	1.03	1.00	2.9	20.0
Benzo[g,h,i]perylene	Ave	1.056	1.112	0.5000	1.05	1.00	5.3	20.0
2-Fluorophenol (Surr)	Ave	0.8449	0.7868		0.931	1.00	-6.9	20.0
Phenol-d5 (Surr)	Ave	1.504	1.340		0.891	1.00	-10.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4091	0.4318		1.06	1.00	5.6	20.0
2-Fluorobiphenyl (Surr)	Ave	1.412	1.485		1.05	1.00	5.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1709	0.1640		0.959	1.00	-4.1	20.0
Terphenyl-d14 (Surr)	Ave	0.8480	0.8490		1.00	1.00	0.1	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80709001.D DFTPP Injection Date: 07/09/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:13

Analysis Batch No.: 335188

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.9	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.1	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.7	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.4	
442	40.0 - 110.0% of mass 198	72.4	
443	15.0 - 24.0% of mass 442	14.1	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-335188/2	80709002.D	07/09/2018	06:31
	STD8 240-335188/3	80709003.D	07/09/2018	06:55
	STD7 240-335188/4	80709004.D	07/09/2018	07:20
	STD6 240-335188/5	80709005.D	07/09/2018	07:44
	STD5 240-335188/6	80709006.D	07/09/2018	08:09
	STD4 240-335188/7	80709007.D	07/09/2018	08:33
	STD3 240-335188/8	80709008.D	07/09/2018	08:58
	STD2 240-335188/9	80709009.D	07/09/2018	09:23
	STD1 240-335188/10	80709010.D	07/09/2018	09:47
	ICV 240-335188/11	80709011.D	07/09/2018	10:12
	MB 240-334783/16-A	80709021.D	07/09/2018	14:21
	LCS 240-334783/17-A	80709022.D	07/09/2018	14:46
MSA-MW-49D-062818	240-97912-2	80709024.D	07/09/2018	17:41
MSA-MW-49I-062818	240-97912-3	80709025.D	07/09/2018	18:06

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-335188/10	80709010.D
Level 2	STD2 240-335188/9	80709009.D
Level 3	STD3 240-335188/8	80709008.D
Level 4	STD4 240-335188/7	80709007.D
Level 5	STD5 240-335188/6	80709006.D
Level 6	STD6 240-335188/5	80709005.D
Level 7	STD7 240-335188/4	80709004.D
Level 8	STD8 240-335188/3	80709003.D
Level 9	STD9 240-335188/2	80709002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2509	0.2904 0.2594	0.2756 0.3276	0.3009 0.3262	0.2334	Ave		0.2830				12.2		20.0			
N-Nitrosodimethylamine	0.9062	0.8581 0.8849	0.8607 0.9542	0.8504 0.9481	0.8751	Ave		0.8922				4.5		20.0			
Pyridine	0.6900 0.7841	0.7758 0.7723	0.7789 1.0259	0.8282 +++++	0.7163	Ave		0.7964				12.8		20.0			
Benzaldehyde	+++++ 0.8270	1.2803 0.7867	1.1772 +++++	1.1454 +++++	0.9521	Ave		1.0281			0.0100	19.7		20.0			
Phenol	1.2277	1.6091 1.6824	1.4696 1.6515	1.3241 1.6564	1.5251	Ave		1.5182			0.8000	11.0		20.0			
Aniline	2.3759	2.2289 2.8852	2.2107 2.7243	2.1642 2.4953	2.4630	Ave		2.4434				10.5		20.0			
Bis(2-chloroethyl)ether	1.7214	1.7321 1.7195	1.7076 1.6708	1.6389 1.6244	1.7663	Ave		1.6976			0.7000	2.9		20.0			
2-Chlorophenol	1.2892	1.3414 1.5022	1.3790 1.4740	1.2897 1.4914	1.5070	Ave		1.4092			0.8000	6.8		20.0			
n-Decane	1.6100	1.6149 1.6539	1.6398 1.7612	1.6842 1.6575	1.6400	Ave		1.6577				2.9		20.0			
1,3-Dichlorobenzene	1.6659	1.6507 1.6398	1.5771 1.6871	1.6175 1.6875	1.6348	Ave		1.6451				2.2		20.0			
1,4-Dichlorobenzene	1.6894	1.6847 1.6844	1.6331 1.7125	1.6627 1.7272	1.7023	Ave		1.6870				1.7		20.0			
Benzyl alcohol	1.0448	0.3650 1.1240	0.5236 1.0599	0.7441 1.0300	1.0040	Lin1	-44.80	1.0835							0.9980		0.9900
1,2-Dichlorobenzene	1.6522	1.6614 1.6938	1.6892 1.6977	1.5810 1.6801	1.6428	Ave		1.6623				2.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylphenol	1.4325	1.2031 1.6411	1.1583 1.5582	1.1664 1.4622	1.3682	Ave		1.3737			0.7000	13.3		20.0			
bis (2-chloroisopropyl) ether	2.6655	2.8256 2.7410	2.7320 2.6008	2.6666 2.4158	2.8234	Ave		2.6838				5.0		20.0			
Indene	2.9569	2.8950 3.0696	2.8287 2.9367	2.8662 2.7813	2.9952	Ave		2.9162				3.2		20.0			
3 & 4 Methylphenol	1.4554	1.0712 1.6018	0.9958 1.5948	1.1642 1.4749	1.3189	Ave		1.3346				17.6		20.0			
N-Nitrosodi-n-propylamine	1.2835	1.1119 1.3372	1.2126 1.2637	1.2885 1.2105	1.3478	Ave		1.2570			0.5000	6.1		20.0			
Acetophenone	2.2704	2.1684 2.4117	2.0350 2.3274	2.2333 2.2243	2.3925	Ave		2.2579			0.0100	5.5		20.0			
Hexachloroethane	0.6622	0.6524 0.6523	0.6509 0.6635	0.6375 0.6606	0.6516	Ave		0.6539			0.3000	1.3		20.0			
Nitrobenzene	0.4018	0.3965 0.4136	0.4069 0.4158	0.4075 0.4074	0.4316	Ave		0.4101			0.2000	2.6		20.0			
Isophorone	0.6909	0.6258 0.6908	0.6911 0.7116	0.7454 0.7010	0.7293	Ave		0.6982			0.4000	5.1		20.0			
2,4-Dimethylphenol	0.3477	0.2647 0.3619	0.2817 0.3795	0.3219 0.3674	0.3453	Ave		0.3338			0.2000	12.4		20.0			
2-Nitrophenol	0.1992	0.1580 0.2069	0.1684 0.2147	0.1790 0.2116	0.1956	Ave		0.1917			0.1000	10.9		20.0			
Benzoic acid	0.1691	+++++ 0.1854	0.0288 0.1981	0.0732 0.1879	0.1496	Lin1	-40.53	0.1984							0.9970		0.9900
Bis(2-chloroethoxy)methane	0.4141	0.4081 0.4228	0.4337 0.4303	0.4567 0.4252	0.4390	Ave		0.4287			0.3000	3.5		20.0			
2,4-Dichlorophenol	0.2620	0.1727 0.2717	0.1840 0.2852	0.2136 0.2823	0.2478	Ave		0.2399			0.2000	18.5		20.0			
1,2,4-Trichlorobenzene	0.2964	0.2923 0.3150	0.3003 0.3266	0.2871 0.3260	0.3064	Ave		0.3063				4.9		20.0			
Naphthalene	1.0741 1.0615	1.0761 1.0980	1.0710 1.1119	1.1046 1.1022	1.1140	Ave		1.0904			0.7000	1.8		20.0			
4-Chloroaniline	0.5147	0.4686 0.4623	0.4854 0.4400	0.5760 0.4632	0.5203	Ave		0.4913			0.0100	8.9		20.0			
2,6-Dichlorophenol	0.2766	0.2131 0.2882	0.2278 0.2992	0.2621 0.3003	0.2769	Ave		0.2680				12.0		20.0			
Hexachlorobutadiene	0.1599	0.1604 0.1672	0.1621 0.1744	0.1592 0.1765	0.1672	Ave		0.1659			0.0100	4.0		20.0			
Caprolactam	0.0701 0.1080	0.0888 0.1124	0.1075 0.1140	0.1175 0.1136	0.1125	Ave		0.1049			0.0100	14.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Chloro-3-methylphenol	0.2870	0.1715 0.2992	0.2315 0.3050	0.2697 0.2978	0.2970	Ave		0.2698			0.2000	17.2		20.0			
2-Methylnaphthalene	0.6809 0.7079	0.6883 0.7337	0.7079 0.7600	0.7651 0.7511	0.7418	Ave		0.7263			0.4000	4.3		20.0			
1-Methylnaphthalene	0.6556 0.6667	0.6230 0.7033	0.6579 0.7203	0.7092 0.7063	0.7066	Ave		0.6832				4.9		20.0			
Hexachlorocyclopentadiene	0.3680	0.2743 0.3890	0.2789 0.4060	0.3122 0.4215	0.3623	Ave		0.3515			0.0500	16.1		20.0			
1,2,4,5-Tetrachlorobenzene	0.5694	0.4972 0.5971	0.5077 0.6137	0.5496 0.6408	0.5762	Ave		0.5689			0.0100	8.7		20.0			
2,4,6-Trichlorophenol	0.3780	0.2673 0.3995	0.2892 0.4077	0.3470 0.4262	0.3863	Ave		0.3626			0.2000	15.8		20.0			
2,4,5-Trichlorophenol	0.3928	0.1657 0.4049	0.1837 0.4065	0.3024 0.4236	0.4021	Lin1	-17.16	0.4201			0.2000				0.9990		0.9900
1,1'-Biphenyl	1.6055 1.6478	1.5573 1.7006	1.6469 1.6906	1.6776 1.7400	1.7058	Ave		1.6635			0.0100	3.4		20.0			
2-Chloronaphthalene	1.2982 1.2456	1.1325 1.2815	1.1924 1.3105	1.2532 1.3504	1.3108	Ave		1.2639			0.8000	5.3		20.0			
2-Nitroaniline	0.4385	0.3768 0.4408	0.3822 0.4299	0.4227 0.4320	0.4611	Ave		0.4230			0.0100	6.9		20.0			
Dimethyl phthalate	1.3834	1.3982 1.4326	1.3818 1.4379	1.4118 1.4576	1.4535	Ave		1.4196			0.0100	2.1		20.0			
1,3-Dinitrobenzene	0.2311	0.1512 0.2435	0.1796 0.2400	0.2139 0.2467	0.2381	Ave		0.2180				16.0		20.0			
2,6-Dinitrotoluene	0.3222	0.2529 0.3309	0.2932 0.3378	0.3114 0.3389	0.3374	Ave		0.3156				9.5		20.0			
Acenaphthylene	1.4764 1.8274	1.6709 1.8787	1.7260 1.9063	1.7960 1.9337	1.8760	Ave		1.7879			0.9000	8.1		20.0			
3-Nitroaniline	0.2533	0.2279 0.2314	0.2870 0.2272	0.2822 0.2211	0.2433	Ave		0.2467			0.0100	10.4		20.0			
2,4-Dinitrophenol	0.1846	+++++ 0.2035	0.0680 0.2191	0.1090 0.2321	0.1700	Lin1	-40.52	0.2261			0.0100				0.9950		0.9900
Acenaphthene	1.2872 1.3154	1.3016 1.3598	1.2918 1.3577	1.3048 1.3880	1.3580	Ave		1.3294			0.9000	2.8		20.0			
4-Nitrophenol	0.1944	0.0870 0.2064	0.1385 0.2163	0.1691 0.2173	0.1797	Lin1	-15.54	0.2145							0.9980		0.9900
2,4-Dinitrotoluene	0.4028	0.3250 0.4148	0.3694 0.4260	0.4039 0.4298	0.4320	Ave		0.4005			0.2000	9.1		20.0			
Dibenzofuran	1.7112 1.7440	1.7911 1.8310	1.7639 1.8415	1.7702 1.9007	1.8170	Ave		1.7967			0.8000	3.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3,4,6-Tetrachlorophenol	0.2960	0.2287 0.3058	0.2740 0.3153	0.3009 0.3275	0.3091	Ave		0.2947			0.0100	10.5		20.0			
Hexadecane	1.0021	0.9766 0.9896	0.9961 0.9816	1.0434 0.9812	1.0647	Ave		1.0044				3.2		20.0			
Diethyl phthalate	1.4471	1.8548 1.4755	1.6739 1.4869	1.5101 1.5121	1.5607	Ave		1.5651			0.0100	8.7		20.0			
4-Chlorophenyl phenyl ether	0.6660	0.6378 0.6903	0.6427 0.7102	0.6597 0.7290	0.6807	Ave		0.6770			0.4000	4.7		20.0			
4-Nitroaniline	0.2663	0.2873 0.2676	0.3049 0.2451	0.3438 0.2390	0.2755	Ave		0.2787			0.0100	12.1		20.0			
Fluorene	1.5927 1.4612	1.4115 1.5009	1.3997 1.5054	1.4367 1.5417	1.4957	Ave		1.4828			0.9000	4.2		20.0			
4,6-Dinitro-2-methylphenol	0.1358	0.0553 0.1528	0.0801 0.1567	0.1006 0.1556	0.1215	Lin1	-14.18	0.1549			0.0100				0.9960		0.9900
Diphenylamine	0.7211	0.6392 0.7401	0.6579 0.7268	0.6714 0.7225	0.7284	Ave		0.7009				5.5		20.0			
N-Nitrosodiphenylamine	0.6130	0.5434 0.6291	0.5592 0.6178	0.5707 0.6142	0.6191	Ave		0.5958			0.0100	5.5		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	0.9716	0.8592 0.9872	0.8774 0.9358	0.9344 0.9220	0.9990	Ave		0.9358				5.3		20.0			
Azobenzene	0.9721	0.8592 0.9872	0.8791 0.9357	0.9324 0.9220	0.9988	Ave		0.9358				5.3		20.0			
4-Bromophenyl phenyl ether	0.2280	0.2087 0.2401	0.2033 0.2420	0.2064 0.2414	0.2258	Ave		0.2245			0.1000	7.3		20.0			
Atrazine	0.1731 0.2415	0.1830 0.2449	0.1973 0.2384	0.2012 0.2338	0.2300	Ave		0.2159			0.0100	12.7		20.0			
Hexachlorobenzene	0.2253 0.2613	0.2121 0.2803	0.2193 0.2768	0.2211 0.2822	0.2506	Ave		0.2477			0.1000	11.6		20.0			
n-Octadecane	0.6108	0.5052 0.6214	0.5460 0.6012	0.5690 0.5767	0.6195	Ave		0.5812				7.0		20.0			
Pentachlorophenol	0.1482	+++++ 0.1686	0.0881 0.1748	0.1109 0.1762	0.1304	Lin1	-23.81	0.1758			0.0500				0.9960		0.9900
Phenanthrene	1.1838 1.1059	1.0279 1.1616	1.0788 1.1822	1.0974 1.1810	1.1597	Ave		1.1309			0.7000	4.9		20.0			
Anthracene	0.9587 1.1687	1.0217 1.2326	1.0627 1.2218	1.1266 1.2451	1.1890	Ave		1.1363			0.7000	8.9		20.0			
Carbazole	0.9186	0.9329 0.9311	0.9569 0.9025	0.9034 0.8650	0.9126	Ave		0.9154			0.0100	3.0		20.0			
Di-n-butyl phthalate	1.3783	1.1373 1.4337	1.1798 1.3921	1.2119 1.3861	1.3536	Ave		1.3091			0.0100	8.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.0444 1.1694	0.9676 1.1834	0.9990 1.1941	1.0118 1.1831	1.1392	Ave		1.0991			0.6000	8.4		20.0			
Benzidine	 0.4505	0.2487 0.5072	0.3055 0.5196	0.3434 0.5575	0.4414	Lin1	-43.22	0.5286							0.9940		0.9900
Pyrene	1.1965 1.1676	1.1790 1.2182	1.1736 1.2189	1.1697 1.2510	1.2386	Ave		1.2015			0.6000	2.6		20.0			
Butyl benzyl phthalate	 0.6021	0.4239 0.6427	0.5038 0.6330	0.5540 0.6522	0.6159	Ave		0.5785			0.0100	13.8		20.0			
Bis(2-ethylhexyl) phthalate	 0.8354	0.5666 0.8987	0.6406 0.8928	0.7434 0.9051	0.8381	Ave		0.7901			0.0100	16.2		20.0			
3,3'-Dichlorobenzidine	 0.3891	0.3561 0.4153	0.3799 0.4158	0.4153 0.4247	0.4248	Ave		0.4026			0.0100	6.2		20.0			
Benzo[a]anthracene	0.9741 1.1481	1.0215 1.2057	1.0600 1.2056	1.1157 1.2192	1.1761	Ave		1.1251			0.8000	7.9		20.0			
Chrysene	1.1816 1.1008	1.0927 1.1598	1.0895 1.1523	1.1376 1.1649	1.1357	Ave		1.1350			0.7000	3.0		20.0			
Di-n-octyl phthalate	 1.4737	0.8227 1.5446	1.0422 1.5715	1.2334 1.5805	1.4265	Lin1	-48.52	1.5769			0.0100				0.9990		0.9900
Benzo[b]fluoranthene	0.9638 1.1638	1.0898 1.2601	1.0442 1.2726	1.0919 1.2278	1.2013	Ave		1.1461			0.7000	9.2		20.0			
Benzo[k]fluoranthene	1.0047 1.2156	1.0296 1.2730	1.2238 1.2793	1.2130 1.3318	1.2423	Ave		1.2015			0.7000	9.3		20.0			
Benzo[a]pyrene	0.8096 1.1201	0.9405 1.1893	1.0328 1.2002	1.0410 1.2040	1.1305	Ave		1.0742			0.7000	12.4		20.0			
Indeno[1,2,3-cd]pyrene	0.9762 1.2977	1.0142 1.3792	1.1629 1.3793	1.1970 1.3955	1.2963	Ave		1.2331			0.5000	12.7		20.0			
Dibenz(a,h)anthracene	0.7693 1.1142	0.8918 1.1787	0.9513 1.2012	1.0178 1.2154	1.1197	Ave		1.0510			0.4000	14.7		20.0			
Benzo[g,h,i]perylene	0.8885 1.0707	0.9238 1.1130	1.0046 1.1079	1.0293 1.1116	1.1170	Ave		1.0407			0.5000	8.3		20.0			
2-Fluorophenol (Surr)	 0.7563	0.8444 0.7264	0.8776 0.7795	0.8983 0.8366	0.8524	Ave		0.8214				7.4		20.0			
Phenol-d5 (Surr)	 1.1226	1.3426 1.5375	1.2916 1.5104	1.2081 1.5319	1.3692	Ave		1.3642				11.4		20.0			
Nitrobenzene-d5 (Surr)	0.4165 0.4054	0.3853 0.4086	0.4094 0.4194	0.4040 0.4137	0.4279	Ave		0.4100				2.9		20.0			
2-Fluorobiphenyl (Surr)	1.3653 1.4046	1.3835 1.4555	1.4027 1.4688	1.4520 1.4952	1.4940	Ave		1.4357				3.3		20.0			
2,4,6-Tribromophenol (Surr)	 0.1746	0.1381 0.1852	0.1568 0.1891	0.1738 0.1941	0.1804	Ave		0.1740				10.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Terphenyl-d14 (Surr)	0.8177 0.7972	0.7471 0.8706	0.7657 0.8786	0.8231 0.9081	0.8576	Ave		0.8295				6.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-335188/10	80709010.D
Level 2	STD2 240-335188/9	80709009.D
Level 3	STD3 240-335188/8	80709008.D
Level 4	STD4 240-335188/7	80709007.D
Level 5	STD5 240-335188/6	80709006.D
Level 6	STD6 240-335188/5	80709005.D
Level 7	STD7 240-335188/4	80709004.D
Level 8	STD8 240-335188/3	80709003.D
Level 9	STD9 240-335188/2	80709002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	84579	4338 122610	9009 219917	19439 278716	38430	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	305482	12818 418336	28133 640454	54940 810072	144117	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	3970 528602	23178 730205	50918 1377167	107006 +++++	235921	20.0 2000	100 3000	200 4000	400 +++++	1000
Benzaldehyde	DCBd 4	Ave	+++++ 557561	38251 743842	76958 +++++	147993 +++++	313590	+++++ 2000	100 3000	200 +++++	400 +++++	1000
Phenol	DCBd 4	Ave	413851	24036 795342	48036 1108480	85538 1415331	251157	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	800886	33295 1364004	72260 1828532	139810 2132099	405625	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	580250	25874 812881	55814 1121420	105874 1387977	290883	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	434561	20038 710181	45073 989358	83318 1274355	248177	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	542720	24123 781873	53599 1182087	108805 1416245	270087	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	561569	24658 775220	51550 1132363	104495 1441849	269235	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	569481	25165 796288	53381 1149461	107413 1475769	280353	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Lin1	352186	5453 531400	17116 711435	48070 880094	165338	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	556925	24818 800762	55215 1139515	102137 1435549	270554	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	482897	17972 775819	37859 1045876	75352 1249357	225322	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
bis (2-chloroisopropyl) ether	DCBd 4	Ave	898506	42208 1295833	89299 1745636	172267 2064136	464981	1000	50.0 1500	100 2000	200 2500	500
Indene	DCBd 4	Ave	1993498	86491 2902324	184918 3942266	370322 4753008	986525	2000	100 3000	200 4000	400 5000	1000
3 & 4 Methylphenol	DCBd 4	Ave	490599	16001 757271	32550 1070449	75208 1260251	217205	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodi-n-propylamine	DCBd 4	Ave	432664	16609 632179	39636 848196	83240 1034342	221963	1000	50.0 1500	100 2000	200 2500	500
Acetophenone	DCBd 4	Ave	765314	32391 1140147	66517 1562156	144278 1900538	394011	1000	50.0 1500	100 2000	200 2500	500
Hexachloroethane	DCBd 4	Ave	223216	9745 308398	21275 445336	41185 564442	107302	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene	NPT	Ave	636008	26020 948518	56419 1271358	113347 1533851	326488	1000	50.0 1500	100 2000	200 2500	500
Isophorone	NPT	Ave	1093741	41069 1584059	95830 2175962	207320 2639622	551741	1000	50.0 1500	100 2000	200 2500	500
2,4-Dimethylphenol	NPT	Ave	550396	17374 829898	39070 1160508	89541 1383457	261228	1000	50.0 1500	100 2000	200 2500	500
2-Nitrophenol	NPT	Ave	315334	10367 474543	23358 656447	49786 796771	147948	1000	50.0 1500	100 2000	200 2500	500
Benzoic acid	NPT	Lin1	535528	+++++ 850361	8001 1211705	40714 1415021	226380	2000	+++++ 3000	200 4000	400 5000	1000
Bis(2-chloroethoxy)methane	NPT	Ave	655487	26784 969574	60137 1315821	127015 1601032	332145	1000	50.0 1500	100 2000	200 2500	500
2,4-Dichlorophenol	NPT	Ave	414730	11334 622979	25521 871992	59419 1063147	187466	1000	50.0 1500	100 2000	200 2500	500
1,2,4-Trichlorobenzene	NPT	Ave	469222	19183 722375	41649 998614	79865 1227368	231768	1000	50.0 1500	100 2000	200 2500	500
Naphthalene	NPT	Ave	13822 1680366	70622 2517970	148520 3399859	307241 4150120	842756	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Chloroaniline	NPT	Ave	814778	30755 1060202	67310 1345340	160193 1744162	393591	1000	50.0 1500	100 2000	200 2500	500
2,6-Dichlorophenol	NPT	Ave	437904	13983 660929	31585 914854	72891 1130699	209500	1000	50.0 1500	100 2000	200 2500	500
Hexachlorobutadiene	NPT	Ave	253108	10525 383452	22480 533134	44286 664512	126470	1000	50.0 1500	100 2000	200 2500	500
Caprolactam	NPT	Ave	1803 342050	11650 515689	29818 696885	65369 855154	170154	20.0 2000	100 3000	200 4000	400 5000	1000
4-Chloro-3-methylphenol	NPT	Ave	454373	11256 686115	32100 932687	75010 1121183	224674	1000	50.0 1500	100 2000	200 2500	500
2-Methylnaphthalene	NPT	Ave	8762 1120584	45173 1682458	98166 2323719	212804 2828091	561206	10.0 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1-Methylnaphthalene	NPT	Ave	8437 1055478	40888 1612733	91235 2202383	197255 2659425	534532	10.0 1000	50.0 1500	100 2000	200 2500	500
Hexachlorocyclopentadiene	ANT	Ave	 292661	9326 453272	20227 644285	46278 795244	137373	 1000	50.0 1500	100 2000	200 2500	500
1,2,4,5-Tetrachlorobenzene	ANT	Ave	 452751	16901 695722	36814 973960	81464 1208989	218485	 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Trichlorophenol	ANT	Ave	 300585	9087 465446	20970 646939	51440 804078	146470	 1000	50.0 1500	100 2000	200 2500	500
2,4,5-Trichlorophenol	ANT	Lin1	 312364	5633 471750	13320 645026	44825 799150	152477	 1000	50.0 1500	100 2000	200 2500	500
1,1'-Biphenyl	ANT	Ave	9891 1310319	52938 1981362	119430 2682890	248673 3282777	646821	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Chloronaphthalene	ANT	Ave	7998 990465	38497 1493133	86468 2079755	185761 2547728	497066	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Nitroaniline	ANT	Ave	 348688	12810 513536	27713 682186	62664 814984	174847	 1000	50.0 1500	100 2000	200 2500	500
Dimethyl phthalate	ANT	Ave	 1100112	47530 1669190	100205 2281901	209279 2749933	551167	 1000	50.0 1500	100 2000	200 2500	500
1,3-Dinitrobenzene	ANT	Ave	 183738	5139 283658	13025 380930	31714 465355	90274	 1000	50.0 1500	100 2000	200 2500	500
2,6-Dinitrotoluene	ANT	Ave	 256207	8596 385591	21262 536001	46161 639375	127953	 1000	50.0 1500	100 2000	200 2500	500
Acenaphthylene	ANT	Ave	9096 1453143	56800 2188871	125165 3025168	266224 3648230	711387	10.0 1000	50.0 1500	100 2000	200 2500	500
3-Nitroaniline	ANT	Ave	 201435	7747 269617	20812 360515	41835 417133	92249	 1000	50.0 1500	100 2000	200 2500	500
2,4-Dinitrophenol	ANT	Lin1	 293648	+++++ 474225	9864 695296	32315 875662	128957	 2000	+++++ 3000	200 4000	400 5000	1000
Acenaphthene	ANT	Ave	7930 1046045	44247 1584290	93680 2154579	193417 2618745	514936	10.0 1000	50.0 1500	100 2000	200 2500	500
4-Nitrophenol	ANT	Lin1	 309219	5913 481007	20087 686482	50122 820139	136310	 2000	100 3000	200 4000	400 5000	1000
2,4-Dinitrotoluene	ANT	Ave	 320347	11049 483285	26790 675977	59873 810978	163823	 1000	50.0 1500	100 2000	200 2500	500
Dibenzofuran	ANT	Ave	10542 1386808	60887 2133379	127914 2922422	262407 3585954	689012	10.0 1000	50.0 1500	100 2000	200 2500	500
2,3,4,6-Tetrachlorophenol	ANT	Ave	 235348	7773 356304	19871 500379	44605 617872	117205	 1000	50.0 1500	100 2000	200 2500	500
Hexadecane	ANT	Ave	 796842	33199 1152983	72236 1557720	154668 1851216	403746	 1000	50.0 1500	100 2000	200 2500	500
Diethyl phthalate	ANT	Ave	 1150757	63054 1719132	121386 2359615	223851 2852863	591812	 1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chlorophenyl phenyl ether	ANT	Ave	529606	21681 804272	46610 1127054	97782 1375334	258132	1000	50.0 1500	100 2000	200 2500	500
4-Nitroaniline	ANT	Ave	211747	9765 311730	22114 388987	50967 450865	104477	1000	50.0 1500	100 2000	200 2500	500
Fluorene	ANT	Ave	9812 1161974	47983 1748729	101501 2389023	212969 2908743	567183	10.0 1000	50.0 1500	100 2000	200 2500	500
4,6-Dinitro-2-methylphenol	PHN	Lin1	355649	6997 583985	21152 837006	53210 1016412	157853	2000	100 3000	200 4000	400 5000	1000
Diphenylamine	PHN	Ave	802483	34359 1201792	73825 1649787	150881 2005946	402052	850	42.5 1275	85.0 1700	170 2125	425
N-Nitrosodiphenylamine	PHN	Ave	802483	34359 1201792	73825 1649787	150881 2005946	402052	1000	50.0 1500	100 2000	200 2500	500
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1271979	54329 1885978	115822 2498920	247036 3011494	648767	1000	50.0 1500	100 2000	200 2500	500
Azobenzene	PHN	Ave	1272709	54329 1885978	116053 2498673	246496 3011494	648659	1000	50.0 1500	100 2000	200 2500	500
4-Bromophenyl phenyl ether	PHN	Ave	298475	13197 458749	26844 646321	54568 788532	146643	1000	50.0 1500	100 2000	200 2500	500
Atrazine	PHN	Ave	4144 632385	23147 935555	52098 1272997	106400 1527529	298736	20.0 2000	100 3000	200 4000	400 5000	1000
Hexachlorobenzene	PHN	Ave	2697 342142	13414 535477	28954 739246	58442 921658	162716	10.0 1000	50.0 1500	100 2000	200 2500	500
n-Octadecane	PHN	Ave	799664	31948 1187134	72075 1605466	150438 1883549	402338	1000	50.0 1500	100 2000	200 2500	500
Pentachlorophenol	PHN	Lin1	388030	+++++ 644376	23272 933422	58648 1151291	169404	2000	+++++ 3000	200 4000	400 5000	1000
Phenanthrene	PHN	Ave	14174 1447878	64998 2219200	142414 3156737	290118 3857302	753117	10.0 1000	50.0 1500	100 2000	200 2500	500
Anthracene	PHN	Ave	11479 1530045	64605 2354722	140295 3262491	297845 4066732	772148	10.0 1000	50.0 1500	100 2000	200 2500	500
Carbazole	PHN	Ave	1202638	58993 1778724	126328 2410104	238837 2825116	592632	1000	50.0 1500	100 2000	200 2500	500
Di-n-butyl phthalate	PHN	Ave	1804416	71916 2738978	155749 3717469	320409 4527115	879037	1000	50.0 1500	100 2000	200 2500	500
Fluoranthene	PHN	Ave	12505 1530982	61188 2260706	131873 3188624	267495 3864194	739805	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzidine	CRY	Lin1	1154165	25949 1912459	68881 2746539	158782 3504616	532309	2000	100 3000	200 4000	400 5000	1000
Pyrene	CRY	Ave	11085 1495805	61513 2296582	132295 3221725	270420 3931934	746820	10.0 1000	50.0 1500	100 2000	200 2500	500
Butyl benzyl phthalate	CRY	Ave	771308	22120 1211706	56788 1673142	128092 2049818	371381	1000	50.0 1500	100 2000	200 2500	500

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1070176	29564 1694172	72208 2359850	171870 2844794	505342	1000	50.0 1500	100 2000	200 2500	500
3,3'-Dichlorobenzidine	CRY	Ave	997009	37155 1565830	85642 2198010	192031 2669666	512229	2000	100 3000	200 4000	400 5000	1000
Benzo[a]anthracene	CRY	Ave	9024 1470831	53300 2273114	119490 3186507	257941 3831812	709113	10.0 1000	50.0 1500	100 2000	200 2500	500
Chrysene	CRY	Ave	10947 1410250	57013 2186484	122812 3045702	263007 3661341	684757	10.0 1000	50.0 1500	100 2000	200 2500	500
Di-n-octyl phthalate	PRY	Lin1	1778372	40771 2764617	108454 3924716	268885 4822211	811343	1000	50.0 1500	100 2000	200 2500	500
Benzo[b]fluoranthene	PRY	Ave	8917 1404368	54008 2255440	108656 3178225	238035 3746127	683294	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[k]fluoranthene	PRY	Ave	9295 1466932	51027 2278440	127353 3194885	264449 4063328	706590	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[a]pyrene	PRY	Ave	7490 1351682	46612 2128631	107479 2997210	226940 3673499	643002	10.0 1000	50.0 1500	100 2000	200 2500	500
Indeno[1,2,3-cd]pyrene	PRY	Ave	9031 1565922	50263 2468514	121009 3444556	260962 4257573	737304	10.0 1000	50.0 1500	100 2000	200 2500	500
Dibenz(a,h)anthracene	PRY	Ave	7117 1344549	44197 2109682	98988 2999927	221876 3708132	636854	10.0 1000	50.0 1500	100 2000	200 2500	500
Benzo[g,h,i]perylene	PRY	Ave	8220 1292083	45782 1992183	104543 2766862	224399 3391626	635330	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorophenol (Surr)	DCBd 4	Ave	254955	12613 343419	28685 523214	58030 714870	140373	1000	50.0 1500	100 2000	200 2500	500
Phenol-d5 (Surr)	DCBd 4	Ave	378415	20055 726884	42216 1013769	78048 1308935	225488	1000	50.0 1500	100 2000	200 2500	500
Nitrobenzene-d5 (Surr)	NPT	Ave	5360 641842	25286 936988	56776 1282259	112380 1557644	323750	10.0 1000	50.0 1500	100 2000	200 2500	500
2-Fluorobiphenyl (Surr)	ANT	Ave	8411 1116937	47032 1695794	101719 2330878	215234 2820951	566510	10.0 1000	50.0 1500	100 2000	200 2500	500
2,4,6-Tribromophenol (Surr)	ANT	Ave	138878	4693 215788	11373 300074	25764 366235	68411	1000	50.0 1500	100 2000	200 2500	500
Terphenyl-d14 (Surr)	CRY	Ave	7575 1021224	38982 1641239	86310 2322121	190296 2854119	517079	10.0 1000	50.0 1500	100 2000	200 2500	500

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335188/11 Calibration Date: 07/09/2018 10:12

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80709011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2611		0.922	1.00	-7.8	30.0
N-Nitrosodimethylamine	Ave	0.8922	0.9075		1.02	1.00	1.7	30.0
Pyridine	Ave	0.7964	0.8353		2.10	2.00	4.9	30.0
Benzaldehyde	Ave	1.028	0.8564	0.0100	1.67	2.00	-16.7	30.0
Phenol	Ave	1.518	1.438	0.8000	0.947	1.00	-5.3	30.0
Aniline	Ave	2.443	2.357		0.964	1.00	-3.6	30.0
Bis(2-chloroethyl)ether	Ave	1.698	1.684	0.7000	0.992	1.00	-0.8	30.0
2-Chlorophenol	Ave	1.409	1.413	0.8000	1.00	1.00	0.3	30.0
n-Decane	Ave	1.658	1.613		0.973	1.00	-2.7	30.0
1,3-Dichlorobenzene	Ave	1.645	1.592		0.968	1.00	-3.2	30.0
1,4-Dichlorobenzene	Ave	1.687	1.674		0.992	1.00	-0.8	30.0
Benzyl alcohol	Lin1		0.9469		0.915	1.00	-8.5	30.0
1,2-Dichlorobenzene	Ave	1.662	1.616		0.972	1.00	-2.8	30.0
2-Methylphenol	Ave	1.374	1.341	0.7000	0.976	1.00	-2.4	30.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.402		0.895	1.00	-10.5	30.0
Indene	Ave	2.916	2.691		1.85	2.00	-7.7	30.0
3 & 4 Methylphenol	Ave	1.335	1.312		0.983	1.00	-1.7	30.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.211	0.5000	0.963	1.00	-3.7	30.0
Acetophenone	Ave	2.258	2.158	0.0100	0.956	1.00	-4.4	30.0
Hexachloroethane	Ave	0.6539	0.6283	0.3000	0.961	1.00	-3.9	30.0
Nitrobenzene	Ave	0.4101	0.4197	0.2000	1.02	1.00	2.3	30.0
Isophorone	Ave	0.6982	0.7280	0.4000	1.04	1.00	4.3	30.0
2,4-Dimethylphenol	Ave	0.3338	0.3470	0.2000	1.04	1.00	4.0	30.0
2-Nitrophenol	Ave	0.1917	0.1989	0.1000	1.04	1.00	3.8	30.0
Benzoic acid	Lin1		0.1524		1.74	2.00	-13.0	30.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4208	0.3000	0.982	1.00	-1.8	30.0
2,4-Dichlorophenol	Ave	0.2399	0.2508	0.2000	1.05	1.00	4.5	30.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3024		0.987	1.00	-1.3	30.0
Naphthalene	Ave	1.090	1.085	0.7000	0.995	1.00	-0.5	30.0
4-Chloroaniline	Ave	0.4913	0.5429	0.0100	1.11	1.00	10.5	30.0
2,6-Dichlorophenol	Ave	0.2680	0.2796		1.04	1.00	4.3	30.0
Hexachlorobutadiene	Ave	0.1659	0.1695	0.0100	1.02	1.00	2.2	30.0
Caprolactam	Ave	0.1049	0.1061	0.0100	2.02	2.00	1.1	30.0
4-Chloro-3-methylphenol	Ave	0.2698	0.3006	0.2000	1.11	1.00	11.4	30.0
2-Methylnaphthalene	Ave	0.7263	0.7320	0.4000	1.01	1.00	0.8	30.0
1-Methylnaphthalene	Ave	0.6832	0.6787		0.993	1.00	-0.7	30.0
Hexachlorocyclopentadiene	Ave	0.3515	0.4036	0.0500	1.15	1.00	14.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5709	0.0100	1.00	1.00	0.3	30.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3890	0.2000	1.07	1.00	7.3	30.0
2,4,5-Trichlorophenol	Lin1		0.3975	0.2000	0.987	1.00	-1.3	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335188/11 Calibration Date: 07/09/2018 10:12

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80709011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.671	0.0100	1.00	1.00	0.5	30.0
2-Chloronaphthalene	Ave	1.264	1.265	0.8000	1.00	1.00	0.0	30.0
2-Nitroaniline	Ave	0.4230	0.4499	0.0100	1.06	1.00	6.4	30.0
Dimethyl phthalate	Ave	1.420	1.418	0.0100	0.999	1.00	-0.1	30.0
1,3-Dinitrobenzene	Ave	0.2180	0.2333		1.07	1.00	7.0	30.0
2,6-Dinitrotoluene	Ave	0.3156	0.3261		1.03	1.00	3.3	30.0
Acenaphthylene	Ave	1.788	2.024	0.9000	1.13	1.00	13.2	30.0
3-Nitroaniline	Ave	0.2467	0.2661	0.0100	1.08	1.00	7.9	30.0
2,4-Dinitrophenol	Lin1		0.1808	0.0100	1.78	2.00	-11.1	30.0
Acenaphthene	Ave	1.329	1.338	0.9000	1.01	1.00	0.6	30.0
4-Nitrophenol	Lin1		0.2085		2.02	2.00	0.8	30.0
2,4-Dinitrotoluene	Ave	0.4005	0.4018	0.2000	1.00	1.00	0.3	30.0
Dibenzofuran	Ave	1.797	1.781	0.8000	0.991	1.00	-0.9	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.2947	0.2945	0.0100	0.999	1.00	-0.0	30.0
Hexadecane	Ave	1.004	1.035		1.03	1.00	3.0	30.0
Diethyl phthalate	Ave	1.565	1.488	0.0100	0.951	1.00	-4.9	30.0
4-Chlorophenyl phenyl ether	Ave	0.6770	0.6699	0.4000	0.989	1.00	-1.1	30.0
4-Nitroaniline	Ave	0.2787	0.2639	0.0100	0.947	1.00	-5.3	30.0
Fluorene	Ave	1.483	1.510	0.9000	1.02	1.00	1.8	30.0
4,6-Dinitro-2-methylphenol	Lin1		0.1516	0.0100	2.05	2.00	2.4	30.0
Diphenylamine	Ave	0.7009	0.7177		0.870	0.850	2.4	30.0
N-Nitrosodiphenylamine	Ave	0.5958	0.6100	0.0100	1.02	1.00	2.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9358	0.998		1.07	1.00	6.7	30.0
Azobenzene	Ave	0.9358	0.998		1.07	1.00	6.7	30.0
4-Bromophenyl phenyl ether	Ave	0.2245	0.2276	0.1000	1.01	1.00	1.4	30.0
Atrazine	Ave	0.2159	0.2389	0.0100	2.21	2.00	10.7	30.0
Hexachlorobenzene	Ave	0.2477	0.2667	0.1000	1.08	1.00	7.7	30.0
n-Octadecane	Ave	0.5812	0.6260		1.08	1.00	7.7	30.0
Pentachlorophenol	Lin1		0.1547	0.0500	1.90	2.00	-5.2	30.0
Phenanthrene	Ave	1.131	1.127	0.7000	0.997	1.00	-0.3	30.0
Anthracene	Ave	1.136	1.166	0.7000	1.03	1.00	2.6	30.0
Carbazole	Ave	0.9154	0.9142	0.0100	0.999	1.00	-0.1	30.0
Di-n-butyl phthalate	Ave	1.309	1.376	0.0100	1.05	1.00	5.1	30.0
Fluoranthene	Ave	1.099	1.161	0.6000	1.06	1.00	5.6	30.0
Benzidine	Lin1		0.4457		1.77	2.00	-11.6	30.0
Pyrene	Ave	1.201	1.172	0.6000	0.975	1.00	-2.5	30.0
Butyl benzyl phthalate	Ave	0.5785	0.6010	0.0100	1.04	1.00	3.9	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7901	0.8238	0.0100	1.04	1.00	4.3	30.0
3,3'-Dichlorobenzidine	Ave	0.4026	0.3949	0.0100	1.96	2.00	-1.9	30.0
Benzo[a]anthracene	Ave	1.125	1.142	0.8000	1.02	1.00	1.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-335188/11 Calibration Date: 07/09/2018 10:12

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80709011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.135	1.132	0.7000	0.997	1.00	-0.3	30.0
Di-n-octyl phthalate	Lin1		1.403	0.0100	0.921	1.00	-7.9	30.0
Benzo[b]fluoranthene	Ave	1.146	1.165	0.7000	1.02	1.00	1.7	30.0
Benzo[k]fluoranthene	Ave	1.201	1.247	0.7000	1.04	1.00	3.8	30.0
Benzo[a]pyrene	Ave	1.074	1.118	0.7000	1.04	1.00	4.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.233	1.261	0.5000	1.02	1.00	2.3	30.0
Dibenz(a,h)anthracene	Ave	1.051	1.089	0.4000	1.04	1.00	3.6	30.0
Benzo[g,h,i]perylene	Ave	1.041	1.032	0.5000	0.991	1.00	-0.9	30.0
2-Fluorophenol (Surr)	Ave	0.8214	0.8304		1.01	1.00	1.1	30.0
Phenol-d5 (Surr)	Ave	1.364	1.363		0.999	1.00	-0.1	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4100	0.4389		1.07	1.00	7.0	30.0
2-Fluorobiphenyl (Surr)	Ave	1.436	1.511		1.05	1.00	5.3	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1740	0.1851		1.06	1.00	6.4	30.0
Terphenyl-d14 (Surr)	Ave	0.8295	0.8676		1.05	1.00	4.6	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80710001.D DFTPP Injection Date: 07/10/2018

Instrument ID: A4AG2 DFTPP Injection Time: 09:04

Analysis Batch No.: 335396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.0	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.5	
70	Less than 2.0% of mass 69	0.2	(0.4) 1
127	25.0 - 75.0% of mass 198	53.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	29.1	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	71.5	
443	15.0 - 24.0% of mass 442	13.8	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-335396/2	80710002.D	07/10/2018	09:54
	STD6 240-335396/3	80710003.D	07/10/2018	10:19
MSA-MW-49S-062818	240-97912-4	80710016.D	07/10/2018	15:46
MSA-MW-46S-062818	240-97912-5	80710017.D	07/10/2018	16:11
MSA-MW-46I-062818	240-97912-6	80710018.D	07/10/2018	16:36
MSA-MW-46D-062818	240-97912-7	80710019.D	07/10/2018	17:01
MSA-MW-48D-062918	240-97969-2	80710023.D	07/10/2018	18:43
MSA-MW-48S-062918	240-97969-4	80710025.D	07/10/2018	19:33
DMW-4S-062918	240-97969-5	80710026.D	07/10/2018	19:58
DMW-4I-062918	240-97969-6	80710027.D	07/10/2018	20:22
DMW-4D-062918	240-97969-7	80710028.D	07/10/2018	20:47

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335396/2 Calibration Date: 07/10/2018 09:54

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80710002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2523		0.891	1.00	-10.9	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.8712		0.976	1.00	-2.4	20.0
Pyridine	Ave	0.7964	0.8016		2.01	2.00	0.7	20.0
Benzaldehyde	Ave	1.028	0.8747	0.0100	1.70	2.00	-14.9	20.0
Phenol	Ave	1.518	1.541	0.8000	1.02	1.00	1.5	20.0
Aniline	Ave	2.443	2.359		0.966	1.00	-3.4	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.781	0.7000	1.05	1.00	4.9	20.0
2-Chlorophenol	Ave	1.409	1.380	0.8000	0.979	1.00	-2.1	20.0
n-Decane	Ave	1.658	1.633		0.985	1.00	-1.5	20.0
1,3-Dichlorobenzene	Ave	1.645	1.586		0.964	1.00	-3.6	20.0
1,4-Dichlorobenzene	Ave	1.687	1.617		0.958	1.00	-4.2	20.0
Benzyl alcohol	Lin1		1.005		0.969	1.00	-3.1	20.0
1,2-Dichlorobenzene	Ave	1.662	1.565		0.941	1.00	-5.9	20.0
2-Methylphenol	Ave	1.374	1.426	0.7000	1.04	1.00	3.8	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.644		0.985	1.00	-1.5	20.0
Indene	Ave	2.916	2.855		1.96	2.00	-2.1	20.0
3 & 4 Methylphenol	Ave	1.335	1.390		1.04	1.00	4.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.245	0.5000	0.990	1.00	-1.0	20.0
Acetophenone	Ave	2.258	2.202	0.0100	0.975	1.00	-2.5	20.0
Hexachloroethane	Ave	0.6539	0.6283	0.3000	0.961	1.00	-3.9	20.0
Nitrobenzene	Ave	0.4101	0.4148	0.2000	1.01	1.00	1.1	20.0
Isophorone	Ave	0.6982	0.7127	0.4000	1.02	1.00	2.1	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3513	0.2000	1.05	1.00	5.3	20.0
2-Nitrophenol	Ave	0.1917	0.1964	0.1000	1.02	1.00	2.4	20.0
Benzoic acid	Lin1		0.2371		2.59	2.00	29.7*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4202	0.3000	0.980	1.00	-2.0	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2626	0.2000	1.09	1.00	9.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3028		0.989	1.00	-1.1	20.0
Naphthalene	Ave	1.090	1.086	0.7000	0.996	1.00	-0.4	20.0
4-Chloroaniline	Ave	0.4913	0.5595	0.0100	1.14	1.00	13.9	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2787		1.04	1.00	4.0	20.0
Hexachlorobutadiene	Ave	0.1659	0.1627	0.0100	0.981	1.00	-1.9	20.0
Caprolactam	Ave	0.1049	0.1027	0.0100	1.96	2.00	-2.1	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.2973	0.2000	1.10	1.00	10.2	20.0
2-Methylnaphthalene	Ave	0.7263	0.7252	0.4000	0.999	1.00	-0.1	20.0
1-Methylnaphthalene	Ave	0.6832	0.6752		0.988	1.00	-1.2	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3595	0.0500	1.02	1.00	2.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5624	0.0100	0.989	1.00	-1.1	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3858	0.2000	1.06	1.00	6.4	20.0
2,4,5-Trichlorophenol	Lin1		0.3967	0.2000	0.985	1.00	-1.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335396/2 | Calibration Date: 07/10/2018 09:54

Instrument ID: A4AG2 | Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 07/09/2018 09:47

Lab File ID: 80710002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.658	0.0100	0.997	1.00	-0.3	20.0
2-Chloronaphthalene	Ave	1.264	1.241	0.8000	0.982	1.00	-1.8	20.0
2-Nitroaniline	Ave	0.4230	0.4506	0.0100	1.07	1.00	6.5	20.0
Dimethyl phthalate	Ave	1.420	1.412	0.0100	0.995	1.00	-0.5	20.0
1,3-Dinitrobenzene	Ave	0.2180	0.2341		1.07	1.00	7.4	20.0
2,6-Dinitrotoluene	Ave	0.3156	0.3318		1.05	1.00	5.1	20.0
Acenaphthylene	Ave	1.788	1.841	0.9000	1.03	1.00	3.0	20.0
3-Nitroaniline	Ave	0.2467	0.2494	0.0100	1.01	1.00	1.1	20.0
2,4-Dinitrophenol	Lin1		0.2381	0.0100	2.29	2.00	14.3	20.0
Acenaphthene	Ave	1.329	1.329	0.9000	1.00	1.00	-0.0	20.0
4-Nitrophenol	Lin1		0.2006		1.94	2.00	-2.9	20.0
2,4-Dinitrotoluene	Ave	0.4005	0.4091	0.2000	1.02	1.00	2.1	20.0
Dibenzofuran	Ave	1.797	1.775	0.8000	0.988	1.00	-1.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2947	0.2966	0.0100	1.01	1.00	0.7	20.0
Hexadecane	Ave	1.004	1.033		1.03	1.00	2.8	20.0
Diethyl phthalate	Ave	1.565	1.465	0.0100	0.936	1.00	-6.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6770	0.6767	0.4000	1.00	1.00	-0.0	20.0
4-Nitroaniline	Ave	0.2787	0.2847	0.0100	1.02	1.00	2.1	20.0
Fluorene	Ave	1.483	1.465	0.9000	0.988	1.00	-1.2	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1367	0.0100	1.86	2.00	-7.2	20.0
Diphenylamine	Ave	0.7009	0.7276		0.882	0.850	3.8	20.0
N-Nitrosodiphenylamine	Ave	0.5958	0.6185	0.0100	1.04	1.00	3.8	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9358	0.9881		1.06	1.00	5.6	20.0
Azobenzene	Ave	0.9358	0.9878		1.06	1.00	5.6	20.0
4-Bromophenyl phenyl ether	Ave	0.2245	0.2272	0.1000	1.01	1.00	1.2	20.0
Atrazine	Ave	0.2159	0.2444	0.0100	2.26	2.00	13.2	20.0
Hexachlorobenzene	Ave	0.2477	0.2621	0.1000	1.06	1.00	5.8	20.0
n-Octadecane	Ave	0.5812	0.6409		1.10	1.00	10.3	20.0
Pentachlorophenol	Lin1		0.1996	0.0500	2.41	2.00	20.4*	20.0
Phenanthrene	Ave	1.131	1.119	0.7000	0.989	1.00	-1.1	20.0
Anthracene	Ave	1.136	1.173	0.7000	1.03	1.00	3.2	20.0
Carbazole	Ave	0.9154	0.9246	0.0100	1.01	1.00	1.0	20.0
Di-n-butyl phthalate	Ave	1.309	1.401	0.0100	1.07	1.00	7.0	20.0
Fluoranthene	Ave	1.099	1.165	0.6000	1.06	1.00	6.0	20.0
Benzidine	Lin1		0.3588		1.44	2.00	-28.0*	20.0
Pyrene	Ave	1.201	1.190	0.6000	0.991	1.00	-0.9	20.0
Butyl benzyl phthalate	Ave	0.5785	0.6150	0.0100	1.06	1.00	6.3	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7901	0.8551	0.0100	1.08	1.00	8.2	20.0
3,3'-Dichlorobenzidine	Ave	0.4026	0.3853	0.0100	1.91	2.00	-4.3	20.0
Benzo[a]anthracene	Ave	1.125	1.153	0.8000	1.02	1.00	2.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335396/2 Calibration Date: 07/10/2018 09:54

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80710002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.135	1.112	0.7000	0.979	1.00	-2.1	20.0
Di-n-octyl phthalate	Lin1		1.508	0.0100	0.987	1.00	-1.3	20.0
Benzo[b]fluoranthene	Ave	1.146	1.196	0.7000	1.04	1.00	4.4	20.0
Benzo[k]fluoranthene	Ave	1.201	1.225	0.7000	1.02	1.00	2.0	20.0
Benzo[a]pyrene	Ave	1.074	1.116	0.7000	1.04	1.00	3.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.233	1.252	0.5000	1.02	1.00	1.5	20.0
Dibenz(a,h)anthracene	Ave	1.051	1.071	0.4000	1.02	1.00	1.9	20.0
Benzo[g,h,i]perylene	Ave	1.041	1.015	0.5000	0.975	1.00	-2.5	20.0
2-Fluorophenol (Surr)	Ave	0.8214	0.8531		1.04	1.00	3.9	20.0
Phenol-d5 (Surr)	Ave	1.364	1.411		1.03	1.00	3.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4100	0.4155		1.01	1.00	1.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.436	1.412		0.984	1.00	-1.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1740	0.1784		1.03	1.00	2.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8295	0.7939		0.957	1.00	-4.3	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab File ID: 80711001.D DFTPP Injection Date: 07/11/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:34

Analysis Batch No.: 335590

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	50.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.6	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	27.7	
365	Greater than 0.75% of mass 198	3.3	
441	Present, but less than mass 443	9.7	
442	40.0 - 110.0% of mass 198	64.1	
443	15.0 - 24.0% of mass 442	12.6	(19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-335590/2	80711002.D	07/11/2018	06:52
MSA-MW-48I-062918	240-97969-3	80711012.D	07/11/2018	10:58

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335590/2 | Calibration Date: 07/11/2018 06:52

Instrument ID: A4AG2 | Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 07/09/2018 09:47

Lab File ID: 80711002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2272		0.803	1.00	-19.7	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.9079		1.02	1.00	1.8	20.0
Pyridine	Ave	0.7964	0.6832		1.72	2.00	-14.2	20.0
Benzaldehyde	Ave	1.028	1.009	0.0100	1.96	2.00	-1.9	20.0
Phenol	Ave	1.518	0.9794	0.8000	0.645	1.00	-35.5*	20.0
Aniline	Ave	2.443	2.374		0.972	1.00	-2.8	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.898	0.7000	1.12	1.00	11.8	20.0
2-Chlorophenol	Ave	1.409	1.310	0.8000	0.929	1.00	-7.1	20.0
n-Decane	Ave	1.658	1.566		0.945	1.00	-5.5	20.0
1,3-Dichlorobenzene	Ave	1.645	1.576		0.958	1.00	-4.2	20.0
1,4-Dichlorobenzene	Ave	1.687	1.633		0.968	1.00	-3.2	20.0
Benzyl alcohol	Lin1		1.002		0.966	1.00	-3.4	20.0
1,2-Dichlorobenzene	Ave	1.662	1.639		0.986	1.00	-1.4	20.0
2-Methylphenol	Ave	1.374	1.132	0.7000	0.824	1.00	-17.6	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	3.071		1.14	1.00	14.4	20.0
Indene	Ave	2.916	3.172		2.18	2.00	8.8	20.0
3 & 4 Methylphenol	Ave	1.335	1.241		0.930	1.00	-7.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.454	0.5000	1.16	1.00	15.7	20.0
Acetophenone	Ave	2.258	2.612	0.0100	1.16	1.00	15.7	20.0
Hexachloroethane	Ave	0.6539	0.6544	0.3000	1.00	1.00	0.0	20.0
Nitrobenzene	Ave	0.4101	0.4209	0.2000	1.03	1.00	2.6	20.0
Isophorone	Ave	0.6982	0.7273	0.4000	1.04	1.00	4.2	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3648	0.2000	1.09	1.00	9.3	20.0
2-Nitrophenol	Ave	0.1917	0.2033	0.1000	1.06	1.00	6.1	20.0
Benzoic acid	Lin1		0.1940		2.16	2.00	8.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4325	0.3000	1.01	1.00	0.9	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2421	0.2000	1.01	1.00	0.9	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.2895		0.945	1.00	-5.5	20.0
Naphthalene	Ave	1.090	1.099	0.7000	1.01	1.00	0.8	20.0
4-Chloroaniline	Ave	0.4913	0.5874	0.0100	1.20	1.00	19.6	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2828		1.06	1.00	5.5	20.0
Hexachlorobutadiene	Ave	0.1659	0.1565	0.0100	0.944	1.00	-5.6	20.0
Caprolactam	Ave	0.1049	0.1062	0.0100	2.02	2.00	1.2	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.2986	0.2000	1.11	1.00	10.7	20.0
2-Methylnaphthalene	Ave	0.7263	0.7297	0.4000	1.00	1.00	0.5	20.0
1-Methylnaphthalene	Ave	0.6832	0.6855		1.00	1.00	0.3	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3643	0.0500	1.04	1.00	3.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5849	0.0100	1.03	1.00	2.8	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3960	0.2000	1.09	1.00	9.2	20.0
2,4,5-Trichlorophenol	Lin1		0.3865	0.2000	0.961	1.00	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335590/2 Calibration Date: 07/11/2018 06:52

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80711002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1'-Biphenyl	Ave	1.664	1.705	0.0100	1.03	1.00	2.5	20.0
2-Chloronaphthalene	Ave	1.264	1.273	0.8000	1.01	1.00	0.7	20.0
2-Nitroaniline	Ave	0.4230	0.4516	0.0100	1.07	1.00	6.8	20.0
Dimethyl phthalate	Ave	1.420	1.425	0.0100	1.00	1.00	0.4	20.0
1,3-Dinitrobenzene	Ave	0.2180	0.2388		1.10	1.00	9.5	20.0
2,6-Dinitrotoluene	Ave	0.3156	0.3326		1.05	1.00	5.4	20.0
Acenaphthylene	Ave	1.788	1.883	0.9000	1.05	1.00	5.3	20.0
3-Nitroaniline	Ave	0.2467	0.3031	0.0100	1.23	1.00	22.9*	20.0
2,4-Dinitrophenol	Lin1		0.1940	0.0100	1.89	2.00	-5.3	20.0
Acenaphthene	Ave	1.329	1.363	0.9000	1.03	1.00	2.5	20.0
4-Nitrophenol	Lin1		0.2180		2.10	2.00	5.2	20.0
2,4-Dinitrotoluene	Ave	0.4005	0.4092	0.2000	1.02	1.00	2.2	20.0
Dibenzofuran	Ave	1.797	1.801	0.8000	1.00	1.00	0.2	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.2947	0.2950	0.0100	1.00	1.00	0.1	20.0
Hexadecane	Ave	1.004	1.051		1.05	1.00	4.6	20.0
Diethyl phthalate	Ave	1.565	1.487	0.0100	0.950	1.00	-5.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6770	0.6766	0.4000	0.999	1.00	-0.0	20.0
4-Nitroaniline	Ave	0.2787	0.3067	0.0100	1.10	1.00	10.1	20.0
Fluorene	Ave	1.483	1.503	0.9000	1.01	1.00	1.3	20.0
4,6-Dinitro-2-methylphenol	Lin1		0.1381	0.0100	1.88	2.00	-6.2	20.0
Diphenylamine	Ave	0.7009	0.7198		0.873	0.850	2.7	20.0
N-Nitrosodiphenylamine	Ave	0.5958	0.6119	0.0100	1.03	1.00	2.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.9358	0.995		1.06	1.00	6.4	20.0
Azobenzene	Ave	0.9358	0.995		1.06	1.00	6.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2245	0.2293	0.1000	1.02	1.00	2.2	20.0
Atrazine	Ave	0.2159	0.2527	0.0100	2.34	2.00	17.0	20.0
Hexachlorobenzene	Ave	0.2477	0.2576	0.1000	1.04	1.00	4.0	20.0
n-Octadecane	Ave	0.5812	0.6457		1.11	1.00	11.1	20.0
Pentachlorophenol	Lin1		0.1518	0.0500	1.86	2.00	-6.9	20.0
Phenanthrene	Ave	1.131	1.148	0.7000	1.01	1.00	1.5	20.0
Anthracene	Ave	1.136	1.194	0.7000	1.05	1.00	5.1	20.0
Carbazole	Ave	0.9154	0.9945	0.0100	1.09	1.00	8.6	20.0
Di-n-butyl phthalate	Ave	1.309	1.424	0.0100	1.09	1.00	8.8	20.0
Fluoranthene	Ave	1.099	1.206	0.6000	1.10	1.00	9.8	20.0
Benzidine	Lin1		0.4479		1.78	2.00	-11.2	20.0
Pyrene	Ave	1.201	1.230	0.6000	1.02	1.00	2.3	20.0
Butyl benzyl phthalate	Ave	0.5785	0.6346	0.0100	1.10	1.00	9.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7901	0.8905	0.0100	1.13	1.00	12.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4026	0.4142	0.0100	2.06	2.00	2.9	20.0
Benzo[a]anthracene	Ave	1.125	1.149	0.8000	1.02	1.00	2.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: STD6 240-335590/2 Calibration Date: 07/11/2018 06:52

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80711002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chrysene	Ave	1.135	1.120	0.7000	0.987	1.00	-1.3	20.0
Di-n-octyl phthalate	Lin1		1.543	0.0100	1.01	1.00	1.0	20.0
Benzo[b]fluoranthene	Ave	1.146	1.142	0.7000	0.996	1.00	-0.4	20.0
Benzo[k]fluoranthene	Ave	1.201	1.230	0.7000	1.02	1.00	2.3	20.0
Benzo[a]pyrene	Ave	1.074	1.121	0.7000	1.04	1.00	4.4	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.233	1.281	0.5000	1.04	1.00	3.9	20.0
Dibenz(a,h)anthracene	Ave	1.051	1.083	0.4000	1.03	1.00	3.1	20.0
Benzo[g,h,i]perylene	Ave	1.041	1.056	0.5000	1.01	1.00	1.4	20.0
2-Fluorophenol (Surr)	Ave	0.8214	0.6673		0.812	1.00	-18.8	20.0
Phenol-d5 (Surr)	Ave	1.364	0.8817		0.646	1.00	-35.4*	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4100	0.4153		1.01	1.00	1.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.436	1.431		0.997	1.00	-0.3	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1740	0.1742		1.00	1.00	0.1	20.0
Terphenyl-d14 (Surr)	Ave	0.8295	0.8227		0.992	1.00	-0.8	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-333230/5 Date Analyzed: 06/25/2018 09:04

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80625005.D Heated Purge: (Y/N) N

Calibration ID: 45715

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		114358	6.82	562534	7.89	288693	9.39
UPPER LIMIT		228716	7.32	1125068	8.39	577386	9.89
LOWER LIMIT		57179	6.32	281267	7.39	144347	8.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-333230/11		117482	6.81	601686	7.88	307584	9.39
STD6 240-334308/2 CCVIS		122074	6.81	636479	7.88	331532	9.37
STD6 240-334518/2 CCVIS		126654	6.81	595888	7.87	311476	9.37
STD6 240-334754/2 CCVIS		139422	6.80	616504	7.87	315837	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-333230/5 Date Analyzed: 06/25/2018 09:04

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80625005.D Heated Purge: (Y/N) N

Calibration ID: 45715

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		490467	10.67	467623	13.63	445495	16.00
UPPER LIMIT		980934	11.17	935246	14.13	890990	16.50
LOWER LIMIT		245234	10.17	233812	13.13	222748	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-333230/11		514811	10.68	493744	13.63	466700	16.01
STD6 240-334308/2 CCVIS		572751	10.65	548720	13.65	499109	16.08
STD6 240-334518/2 CCVIS		534742	10.66	536224	13.65	508215	16.08
STD6 240-334754/2 CCVIS		547098	10.65	537147	13.64	500314	16.07

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334308/2 Date Analyzed: 07/02/2018 07:22

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		122074	6.81	636479	7.88	331532	9.37
UPPER LIMIT		244148	7.31	1272958	8.38	663064	9.87
LOWER LIMIT		61037	6.31	318240	7.38	165766	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-334070/9-A		154118	6.81	735603	7.87	420549	9.37
LCS 240-334070/10-A		113551	6.81	627976	7.87	333109	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334308/2 Date Analyzed: 07/02/2018 07:22

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80702002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		572751	10.65	548720	13.65	499109	16.08
UPPER LIMIT		1145502	11.15	1097440	14.15	998218	16.58
LOWER LIMIT		286376	10.15	274360	13.15	249555	15.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-334070/9-A		771669	10.65	644292	13.65	618974	16.07
LCS 240-334070/10-A		569609	10.65	562602	13.65	497533	16.07

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334518/2 Date Analyzed: 07/03/2018 07:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80703002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		126654	6.81	595888	7.87	311476	9.37
UPPER LIMIT		253308	7.31	1191776	8.37	622952	9.87
LOWER LIMIT		63327	6.31	297944	7.37	155738	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97836-2	MSA-MW-51D-062718	130949	6.81	631145	7.87	334874	9.37
240-97836-3	MSA-MW-51I-062718	122948	6.81	593018	7.87	313858	9.37
240-97836-4	MSA-MW-51S-062718	128977	6.81	569209	7.87	301002	9.37
240-97836-5	MSA-MW-47S-062718	117675	6.81	582930	7.87	308504	9.37
240-97836-7	MSA-MW-47D-062718	122426	6.81	575559	7.87	320042	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334518/2 Date Analyzed: 07/03/2018 07:10

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80703002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		534742	10.66	536224	13.65	508215	16.08
UPPER LIMIT		1069484	11.16	1072448	14.15	1016430	16.58
LOWER LIMIT		267371	10.16	268112	13.15	254108	15.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97836-2	MSA-MW-51D-062718	643950	10.65	551180	13.65	526093	16.08
240-97836-3	MSA-MW-51I-062718	604634	10.65	538436	13.65	522002	16.07
240-97836-4	MSA-MW-51S-062718	587874	10.65	514996	13.65	497502	16.07
240-97836-5	MSA-MW-47S-062718	604580	10.65	548762	13.65	521923	16.08
240-97836-7	MSA-MW-47D-062718	627163	10.65	552473	13.65	543319	16.07

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12
Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334754/2 Date Analyzed: 07/05/2018 06:45

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80705002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		139422	6.80	616504	7.87	315837	9.37
UPPER LIMIT		278844	7.30	1233008	8.37	631674	9.87
LOWER LIMIT		69711	6.30	308252	7.37	157919	8.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-334754/3 CCV		141065	6.80	649355	7.87	320575	9.37
240-97836-6	MSA-MW-47I-062718	116942	6.80	575741	7.87	279849	9.37

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-334754/2 Date Analyzed: 07/05/2018 06:45

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80705002.D Heated Purge: (Y/N) N

Calibration ID: 45745

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		547098	10.65	537147	13.64	500314	16.07
UPPER LIMIT		1094196	11.15	1074294	14.14	1000628	16.57
LOWER LIMIT		273549	10.15	268574	13.14	250157	15.57
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-334754/3 CCV		577641	10.65	497538	13.64	485765	16.07
240-97836-6	MSA-MW-47I-062718	550700	10.65	474134	13.64	444317	16.07

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335188/5 Date Analyzed: 07/09/2018 07:44

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80709005.D Heated Purge: (Y/N) N

Calibration ID: 45872

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		134836	6.78	633232	7.85	318081	9.35
UPPER LIMIT		269672	7.28	1266464	8.35	636162	9.85
LOWER LIMIT		67418	6.28	316616	7.35	159041	8.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335188/11		144601	6.78	623410	7.85	317839	9.35
MB 240-334783/16-A		107589	6.78	580926	7.85	298229	9.35
LCS 240-334783/17-A		114741	6.78	518818	7.85	262239	9.35
240-97912-2	MSA-MW-49D-062818	127131	6.78	546959	7.85	302738	9.35
240-97912-3	MSA-MW-49I-062818	122906	6.78	523949	7.85	292012	9.35
STD6 240-335396/2 CCVIS		136667	6.76	605905	7.83	305136	9.33
STD6 240-335590/2 CCVIS		114901	6.76	588375	7.82	295902	9.32

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335188/5 Date Analyzed: 07/09/2018 07:44

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80709005.D Heated Purge: (Y/N) N

Calibration ID: 45872

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		523669	10.63	512436	13.62	482691	16.04
UPPER LIMIT		1047338	11.13	1024872	14.12	965382	16.54
LOWER LIMIT		261835	10.13	256218	13.12	241346	15.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335188/11		532128	10.63	531106	13.63	498409	16.05
MB 240-334783/16-A		561357	10.63	462951	13.62	439079	16.05
LCS 240-334783/17-A		443333	10.63	444284	13.63	396167	16.05
240-97912-2	MSA-MW-49D-062818	553125	10.63	486549	13.62	459276	16.05
240-97912-3	MSA-MW-49I-062818	547652	10.63	476967	13.62	444465	16.05
STD6 240-335396/2 CCVIS		507257	10.62	495653	13.60	459179	16.01
STD6 240-335590/2 CCVIS		497198	10.61	480977	13.59	452560	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335396/2 Date Analyzed: 07/10/2018 09:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80710002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		136667	6.76	605905	7.83	305136	9.33
UPPER LIMIT		273334	7.26	1211810	8.33	610272	9.83
LOWER LIMIT		68334	6.26	302953	7.33	152568	8.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-335396/3 CCV		125741	6.76	568160	7.83	293346	9.33
240-97912-4	MSA-MW-49S-062818	113254	6.76	562515	7.83	271160	9.33
240-97912-5	MSA-MW-46S-062818	119359	6.76	501121	7.84	256355	9.33
240-97912-6	MSA-MW-46I-062818	122249	6.76	544381	7.84	284037	9.33
240-97912-7	MSA-MW-46D-062818	124980	6.76	559523	7.84	269031	9.33
240-97969-2	MSA-MW-48D-062918	121121	6.76	542205	7.84	279013	9.33
240-97969-4	MSA-MW-48S-062918	116886	6.76	568442	7.83	270961	9.33
240-97969-5	DMW-4S-062918	118721	6.77	532844	7.84	269215	9.33
240-97969-6	DMW-4I-062918	112050	6.76	529918	7.83	281737	9.33
240-97969-7	DMW-4D-062918	100197	6.76	583134	7.83	291661	9.33

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335396/2 Date Analyzed: 07/10/2018 09:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80710002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		507257	10.62	495653	13.60	459179	16.01
UPPER LIMIT		1014514	11.12	991306	14.10	918358	16.51
LOWER LIMIT		253629	10.12	247827	13.10	229590	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-335396/3 CCV		507640	10.62	452173	13.59	424467	16.01
240-97912-4	MSA-MW-49S-062818	535135	10.62	472805	13.59	435957	16.01
240-97912-5	MSA-MW-46S-062818	510151	10.62	462265	13.59	428137	16.01
240-97912-6	MSA-MW-46I-062818	571166	10.62	489366	13.60	456724	16.01
240-97912-7	MSA-MW-46D-062818	542378	10.62	461872	13.59	441797	16.01
240-97969-2	MSA-MW-48D-062918	545545	10.62	463047	13.60	429662	16.01
240-97969-4	MSA-MW-48S-062918	549751	10.62	472038	13.60	440742	16.01
240-97969-5	DMW-4S-062918	549121	10.62	487272	13.60	447254	16.01
240-97969-6	DMW-4I-062918	545036	10.62	472528	13.59	433245	16.01
240-97969-7	DMW-4D-062918	564716	10.62	490372	13.60	465529	16.01

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335590/2 Date Analyzed: 07/11/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80711002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		114901	6.76	588375	7.82	295902	9.32
UPPER LIMIT		229802	7.26	1176750	8.32	591804	9.82
LOWER LIMIT		57451	6.26	294188	7.32	147951	8.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97969-3	MSA-MW-48I-062918	99522	6.76	536454	7.82	285037	9.32

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD6 240-335590/2 Date Analyzed: 07/11/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80711002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		497198	10.61	480977	13.59	452560	16.00
UPPER LIMIT		994396	11.11	961954	14.09	905120	16.50
LOWER LIMIT		248599	10.11	240489	13.09	226280	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-97969-3	MSA-MW-48I-062918	534428	10.61	467867	13.59	440765	15.99

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
PRY = Perylene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

SAMPLE CALC	SAMPLE ID	MSA-MW-51S-062718				
IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION PPB
128977	1	120381	400	5	0.2829	25.38
		Amt Injected (uL)		VOLUME OF SAMPLE (mL)		
		5		260		

FORM VI

GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA

CURVE EVALUATION

Sample Calculation - Page 2

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 333230

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2018 07:50 Calibration End Date: 06/25/2018 11:07 Calibration ID: 45715

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-333230/10	80625010.D
Level 2	STD2 240-333230/9	80625009.D
Level 3	STD3 240-333230/8	80625008.D
Level 4	STD4 240-333230/7	80625007.D
Level 5	STD5 240-333230/6	80625006.D
Level 6	STD6 240-333230/5	80625005.D
Level 7	STD7 240-333230/4	80625004.D
Level 8	STD8 240-333230/3	80625003.D
Level 9	STD9 240-333230/2	80625002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.3100	0.2865 0.2963	0.2886 0.2676	0.2549 0.2920	0.2670	Ave		0.2829				6.4		20.0			
N-Nitrosodimethylamine	0.9674	0.8659 1.0138	0.8703 0.9298	0.8585 1.0033	0.9175	Ave		0.9283				6.7		20.0			
Pyridine	0.8555 0.9368	0.7398 0.9468	0.6864 0.8794	0.6769 0.9909	0.7369	Ave		0.8277				14.5		20.0			
Benzaldehyde	+++++ 1.0100	1.5420 0.9381	1.5422 0.8000	1.4312 0.7136	1.3486	Qua	92.758	1.2134	-0.000105		0.0100				0.9970		0.9900
Phenol	1.4468	1.8920 1.4787	1.8795 1.5606	1.6271 1.5201	1.9146	Ave		1.6649			0.8000	11.9		20.0			
Aniline	2.6313	2.7201 2.6653	2.7910 2.6003	2.8268 2.4928	3.0410	Ave		2.7211				6.2		20.0			
Bis(2-chloroethyl)ether	1.7557	1.7794 1.8187	1.9195 1.8395	1.9029 1.8471	2.0209	Ave		1.8604			0.7000	4.6		20.0			
n-Decane	1.7925	1.6370 1.7253	1.6757 1.6357	1.6647 1.6941	1.6715	Ave		1.6871				3.1		20.0			
2-Chlorophenol	1.3636	1.4500 1.4855	1.5639 1.5030	1.4920 1.4584	1.6911	Ave		1.5009			0.8000	6.4		20.0			
1,3-Dichlorobenzene	1.6189	1.5923 1.6752	1.6115 1.6187	1.6246 1.6515	1.6662	Ave		1.6324				1.8		20.0			
1,4-Dichlorobenzene	1.6583	1.7090 1.7388	1.6635 1.6717	1.6617 1.6640	1.7286	Ave		1.6869				2.0		20.0			
Benzyl alcohol	1.1178	0.9988 1.1713	1.1036 1.1332	1.0582 1.1491	1.1078	Ave		1.1050				4.9		20.0			
1,2-Dichlorobenzene	1.6387	1.6534 1.7054	1.7041 1.6630	1.6818 1.6277	1.7769	Ave		1.6814				2.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-51S-062718 | Lab Sample ID: 240-97836-4

Matrix: Water | Lab File ID: 80703015.D

Analysis Method: 8270D | Date Collected: 06/27/2018 13:50

Extract. Method: 3510C | Date Extracted: 06/29/2018 06:47

Sample wt/vol: 260(mL) | Date Analyzed: 07/03/2018 13:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334518 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	25		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	57		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-120
367-12-4	2-Fluorophenol (Surr)	80		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	49		33-120

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\A4AG2\20180703-77592.b\80703015.D
Lims ID: 240-97836-F-4-A
Client ID: MSA-MW-51S-062718
Sample Type: Client
Inject. Date: 03-Jul-2018 13:33:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 240-0077592-015
Misc. Info.: 240-97836-F-4-A
Operator ID: Instrument ID: A4AG2

Method: \\ChromNA\Canton\ChromData\A4AG2\20180703-77592.b\LVI AG2 8270.m
Limit Group: MSS 8270D ICAL
Last Update: 05-Jul-2018 05:41:49 Calib Date: 26-Jun-2018 12:22:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\A4AG2\20180626-77341.b\80626014.D

Column 1 : 5% phenyl (0.18 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: hulat Date: 05-Jul-2018 05:39:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	6.806	6.806	0.000	97	128977	400.0	a
* 2 Naphthalene-d8	136	7.871	7.871	0.000	100	569209	400.0	
* 3 Acenaphthene-d10	164	9.371	9.371	0.000	96	301002	400.0	
* 4 Phenanthrene-d10	188	10.653	10.659	-0.006	98	587874	400.0	
* 5 Chrysene-d12	240	13.647	13.653	-0.006	99	514996	400.0	
* 6 Perylene-d12	264	16.070	16.076	-0.006	98	497502	400.0	
$ 7 2-Fluorophenol	112	5.741	5.742	-0.001	94	346714	1272.7	
$ 8 Phenol-d5	99	6.453	6.409	0.000	0	440362	908.3	
$ 9 Nitrobenzene-d5	82	7.253	7.253	0.000	93	671371	1153.4	
$ 10 2-Fluorobiphenyl (Surr)	172	8.759	8.759	0.000	100	1183253	1113.4	
$ 11 2,4,6-Tribromophenol	330	10.047	10.047	0.000	93	101686	790.5	
$ 12 Terphenyl-d14	244	12.165	12.165	-0.006	99	1358890	1244.7	
26 1,4-Dioxane	88	4.336	4.312	-0.006	97	120381	1319.9	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

SMIS80PPMW_00017 Amount Added: 5.00 Units: uL Run Reagent

Method RSK-175

Dissolved Gases (GC) by Method RSK_175

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MSA-MW-48D-062918	240-97969-2	120
MSA-MW-48I-062918	240-97969-3	116
MSA-MW-48S-062918	240-97969-4	116
	MB 240-335947/4	118
	LCS 240-335947/5	115
	LCSD 240-335947/6	116

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	60-140

Column to be used to flag recovery values

FORM II RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: MB 240-335947/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0071204.D Lab File ID:(2)

Date Analyzed:(1) 07/12/2018 14:25 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-335947/5	07/12/2018 14:42	
	LCSD 240-335947/6	07/12/2018 14:59	
MSA-MW-48D-062918	240-97969-2	07/12/2018 17:51	
MSA-MW-48I-062918	240-97969-3	07/12/2018 18:08	
MSA-MW-48S-062918	240-97969-4	07/12/2018 18:25	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335947/4

Matrix: Water Lab File ID: Z0071204.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 23(mL) Date Analyzed: 07/12/2018 14:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335947 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.17	U	1.0	0.17
74-84-0	Ethane	0.10	U	1.0	0.10
74-85-1	Ethylene	0.11	U	1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	118		60-140

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0071205.D

Lab ID: LCS 240-335947/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	285	317	111	80-120	
Ethane	536	547	102	80-120	
Ethylene	501	518	103	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0071206.D

Lab ID: LCSD 240-335947/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	285	289	101	9	35	80-120	
Ethane	536	497	93	10	35	80-120	
Ethylene	501	474	95	9	35	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVRT 240-335947/3 Date Analyzed: 07/12/2018 14:07

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0071203.D Heated Purge: (Y/N) N

Calibration ID: 45555

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.35		
UPPER LIMIT				3.40		
LOWER LIMIT				3.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-335947/3		07/12/2018 14:07	Z0071203.D	3.35		
MB 240-335947/4		07/12/2018 14:25	Z0071204.D	3.35		
LCS 240-335947/5		07/12/2018 14:42	Z0071205.D	3.35		
LCSD 240-335947/6		07/12/2018 14:59	Z0071206.D	3.35		
240-97969-2	MSA-MW-48D-062918	07/12/2018 17:51	Z0071216.D	3.35		
240-97969-3	MSA-MW-48I-062918	07/12/2018 18:08	Z0071217.D	3.35		
240-97969-4	MSA-MW-48S-062918	07/12/2018 18:25	Z0071218.D	3.35		
CCV 240-335947/19		07/12/2018 18:42	Z0071219.D	3.35		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.185	1.186	1.186	1.184	1.185	1.185					1.135 - 1.235	1.185
Ethylene	1.885	1.885	1.884	1.884	1.883	1.880					1.830 - 1.930	1.884
Acetylene	2.000	2.000	1.999	1.998	1.998	1.995					1.945 - 2.045	1.998
Ethane	2.207	2.206	2.206	2.206	2.205	2.198					1.998 - 2.398	2.205
Propane	4.555	4.556	4.556	4.554	4.551	4.532					4.482 - 4.582	4.551
1,1,1-Trifluoroethane	3.354	3.355	3.352	3.351	3.348						3.252 - 3.452	3.352

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	7282.2 5561.5	6249.9 5513.0	5889.1	5770.1	Ave		6044.29415				10.9		20.0			
Ethylene	6624.5 5964.4	5960.5 5857.9	5827.0	5726.3	Ave		5993.41403				5.4		20.0			
Acetylene	2494.2 3606.7	2427.9 3574.8	2790.8	3206.7	Ave		3016.84656				17.3		30.0			
Ethane	7041.7 6329.9	6168.8 6267.0	6020.7	5967.3	Ave		6299.22755				6.2		20.0			
Propane	6701.5 6683.3	6072.4 6713.1	6073.3	6012.9	Ave		6376.09197				5.6		20.0			
1,1,1-Trifluoroethane	2336.7 1945.7	2237.2	2110.2	2217.2	Ave		2169.39000				6.9		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	2077 23578965	12478	58789	576004	2378625	0.285 4277	2.00	9.98	99.8	428
Ethylene	Ave	3318 44002878	20898	102149	1003846	4480284	0.501 7512	3.51	17.5	175	751
Acetylene	Ave	1156 24845661	7877	45272	520180	2506714	0.463 6950	3.24	16.2	162	695
Ethane	Ave	3778 50427702	23168	113058	1120550	5093368	0.537 8047	3.76	18.8	188	805
Propane	Ave	5268 79143040	33414	167095	1654322	7879231	0.786 11789	5.50	27.5	275	1179
1,1,1-Trifluoroethane	Ave	699612	1172180	5528422	11617250	21845316	299	524	2620	5240	11228

Curve Type Legend:
Ave = Average

Calibration / Methane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

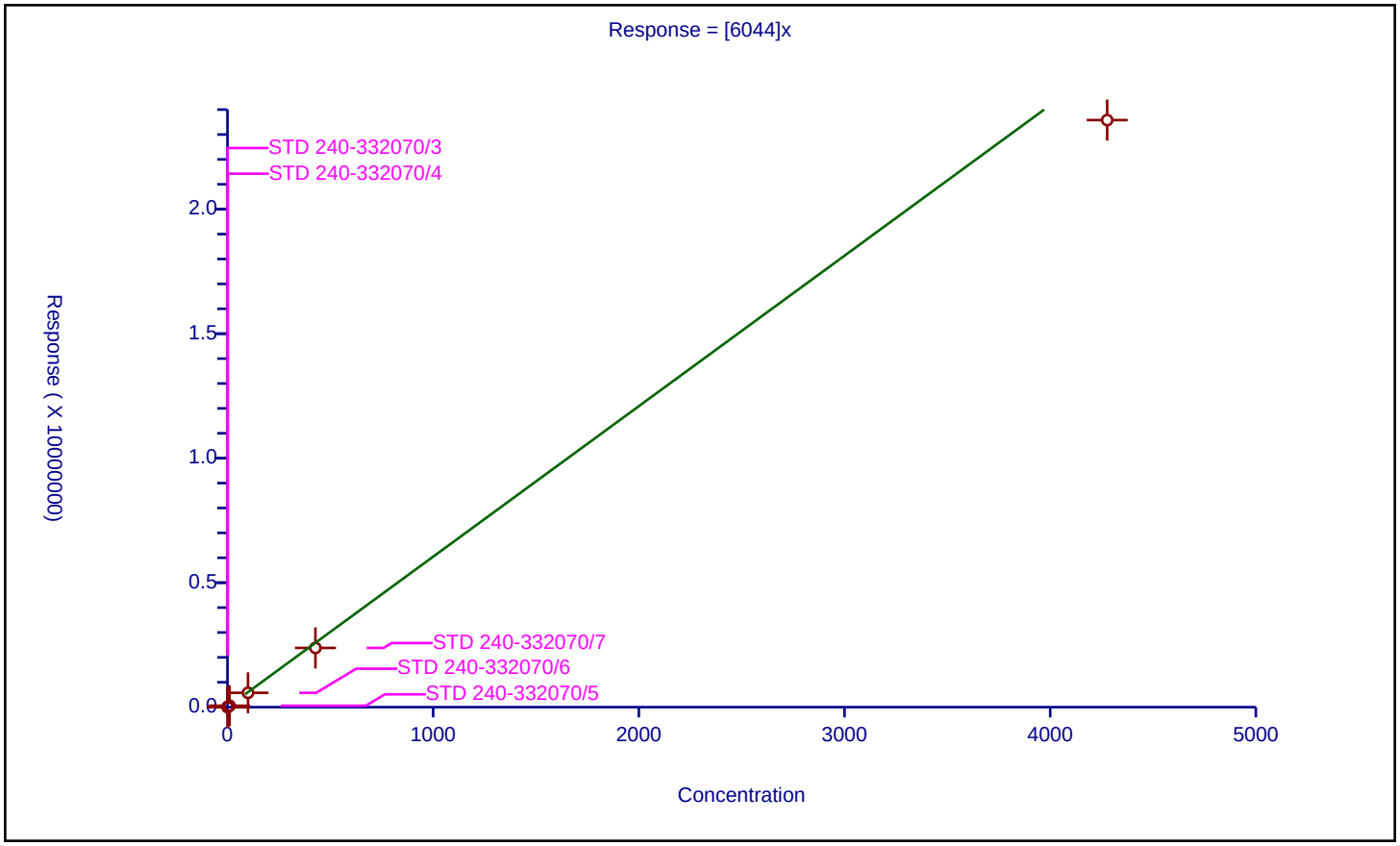
Curve Coefficients

Intercept:	0
Slope:	6044

Error Coefficients

Standard Error:	1020000
Relative Standard Error:	10.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	0.285217	2077.0			7282.164634	Y
2	STD 240-332070/4	1.996522	12478.0			6249.869338	Y
3	STD 240-332070/5	9.982609	58789.0			5889.141986	Y
4	STD 240-332070/6	99.826087	576004.0			5770.074913	Y
5	STD 240-332070/7	427.695652	2378625.0			5561.489783	Y
6	STD 240-332070/8	4276.956522	23578965.0			5513.024245	Y



Calibration / Ethylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

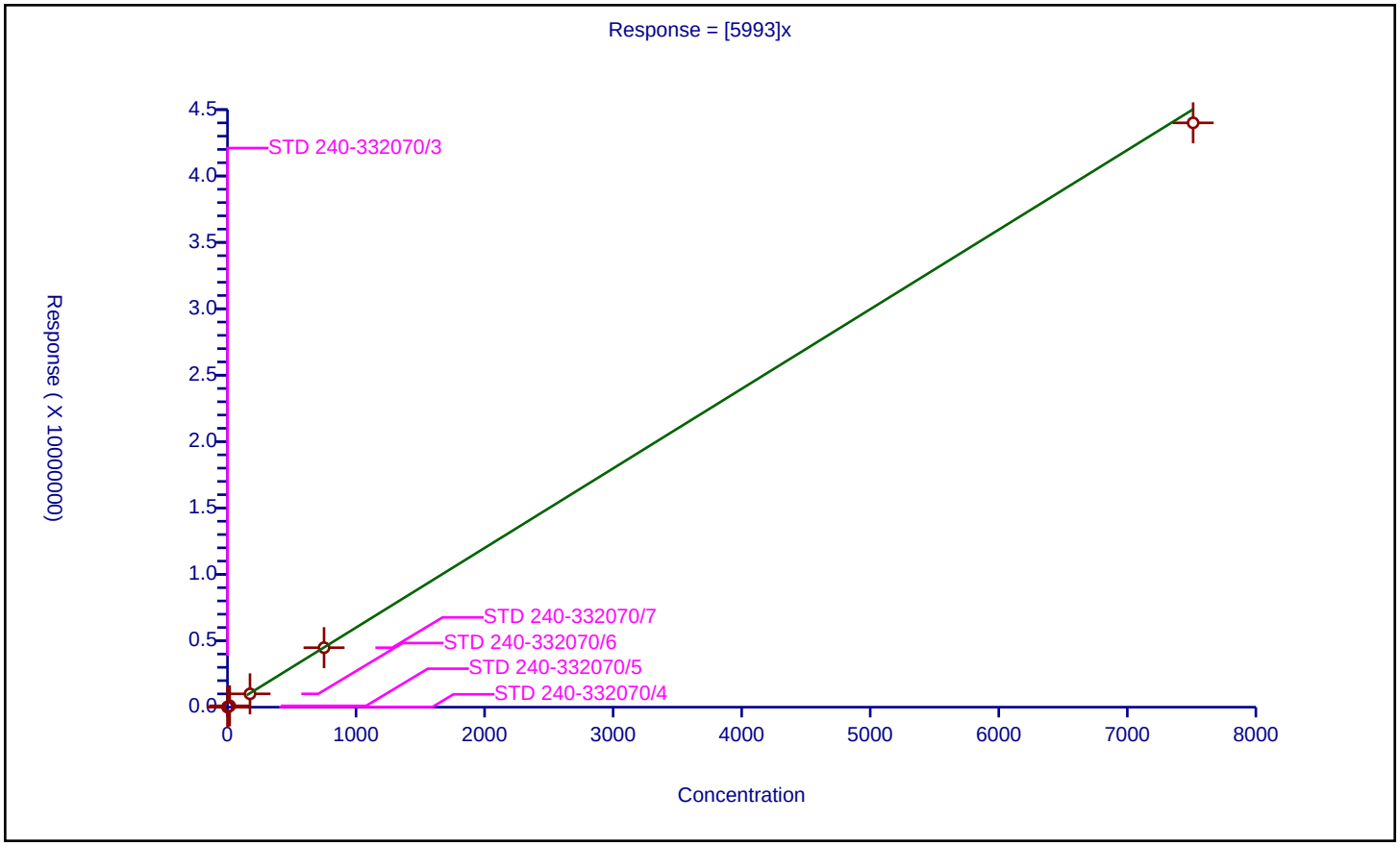
Curve Coefficients

Intercept:	0
Slope:	5993

Error Coefficients

Standard Error:	456000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	0.50087	3318.0			6624.479167	Y
2	STD 240-332070/4	3.506087	20898.0			5960.491071	Y
3	STD 240-332070/5	17.530435	102149.0			5826.951885	Y
4	STD 240-332070/6	175.304348	1003846.0			5726.304067	Y
5	STD 240-332070/7	751.173913	4480284.0			5964.376454	Y
6	STD 240-332070/8	7511.73913	44002878.0			5857.881542	Y



Calibration / Acetylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

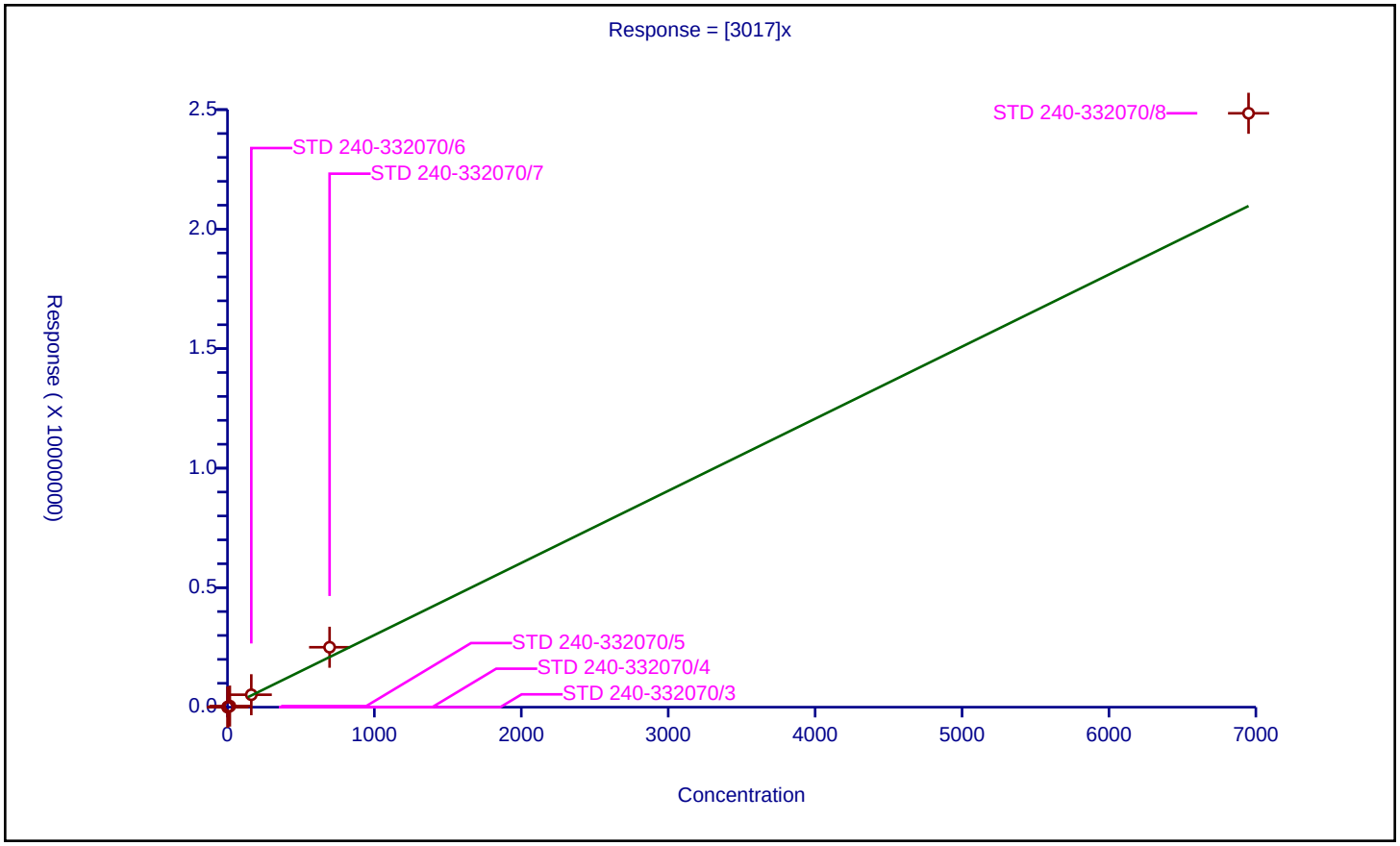
Curve Coefficients

Intercept:	0
Slope:	3017

Error Coefficients

Standard Error:	1740000
Relative Standard Error:	17.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.971

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	0.463478	1156.0			2494.183865	Y
2	STD 240-332070/4	3.244348	7877.0			2427.914768	Y
3	STD 240-332070/5	16.221739	45272.0			2790.822836	Y
4	STD 240-332070/6	162.217391	520180.0			3206.684535	Y
5	STD 240-332070/7	695.021739	2506714.0			3606.66992	Y
6	STD 240-332070/8	6950.217391	24845661.0			3574.803434	Y



Calibration / Ethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

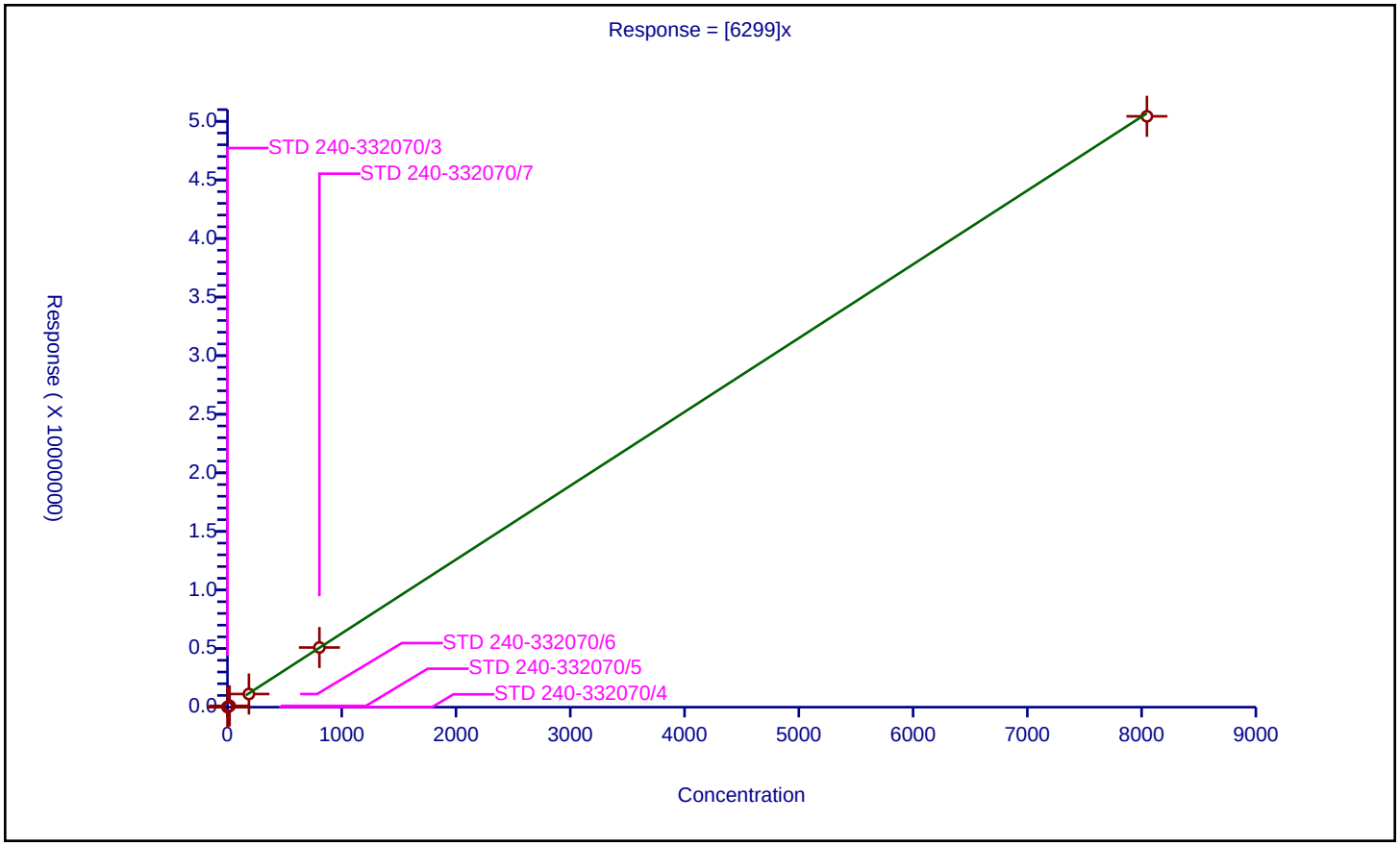
Curve Coefficients

Intercept:	0
Slope:	6299

Error Coefficients

Standard Error:	120000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	0.536522	3778.0			7041.653161	Y
2	STD 240-332070/4	3.755652	23168.0			6168.835379	Y
3	STD 240-332070/5	18.778261	113058.0			6020.685344	Y
4	STD 240-332070/6	187.782609	1120550.0			5967.272517	Y
5	STD 240-332070/7	804.652174	5093368.0			6329.900254	Y
6	STD 240-332070/8	8046.521739	50427702.0			6267.018674	Y



Calibration / 1,1,1-Trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

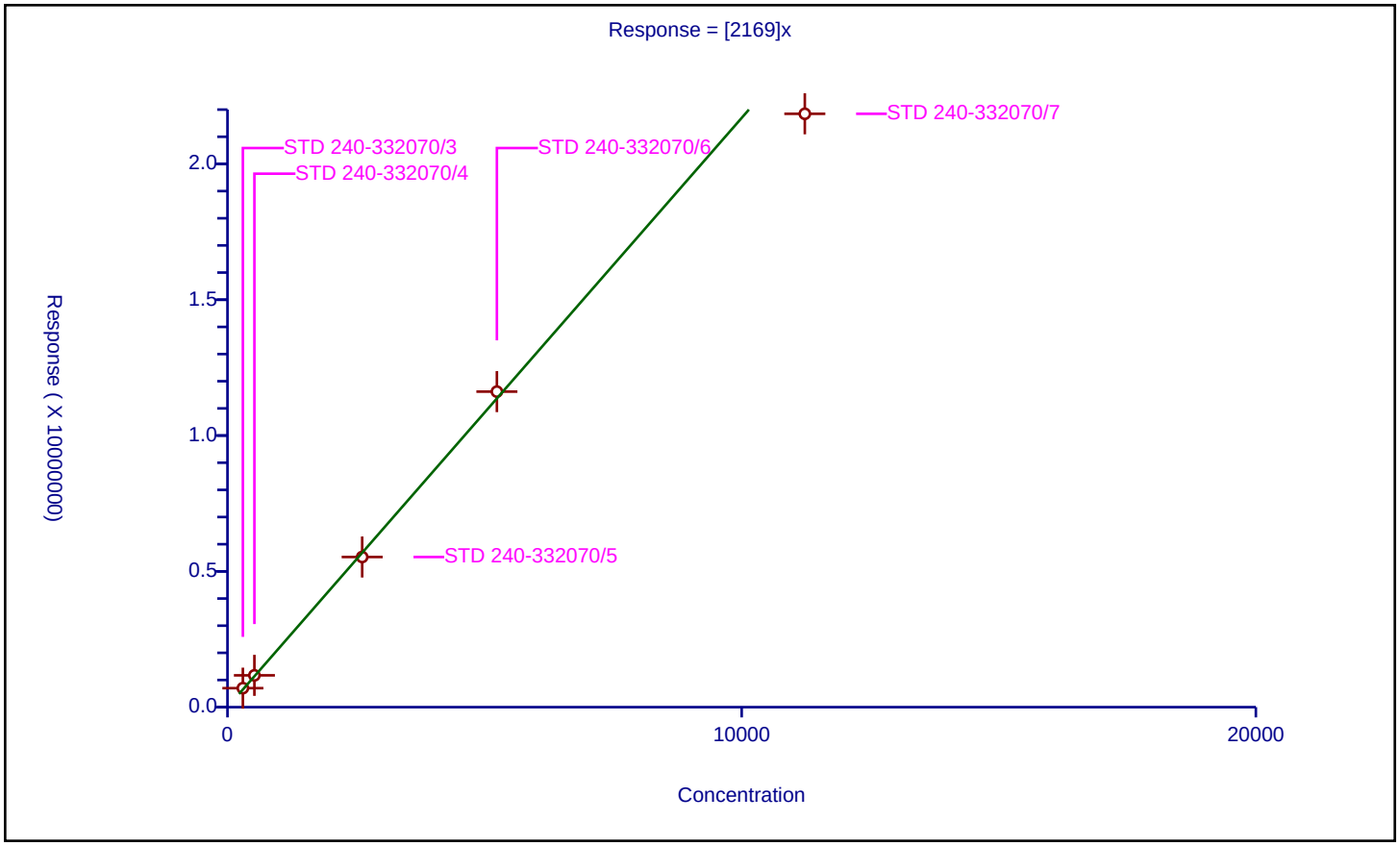
Curve Coefficients

Intercept:	0
Slope:	2169

Error Coefficients

Standard Error:	1260000
Relative Standard Error:	6.9
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	299.405217	699612.0			2336.672708	Y
2	STD 240-332070/4	523.95913	1172180.0			2237.159221	Y
3	STD 240-332070/5	2619.795652	5528422.0			2110.249322	Y
4	STD 240-332070/6	5239.591304	11617250.0			2217.205374	Y
5	STD 240-332070/7	11227.695652	21845316.0			1945.663356	Y



Calibration / Propane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

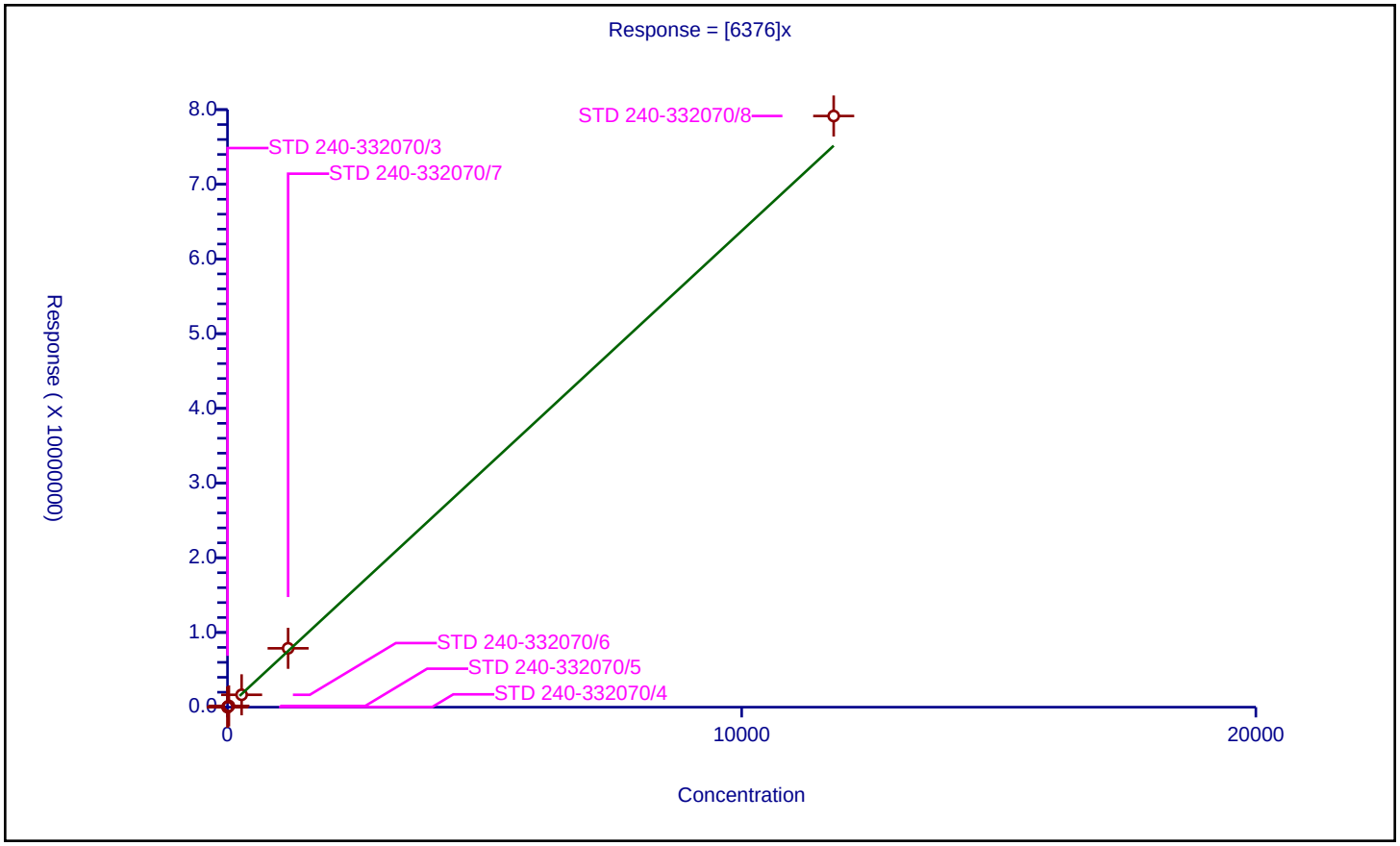
Curve Coefficients

Intercept:	0
Slope:	6376

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD 240-332070/3	0.786087	5268.0			6701.548673	Y
2	STD 240-332070/4	5.502609	33414.0			6072.392541	Y
3	STD 240-332070/5	27.513043	167095.0			6073.301201	Y
4	STD 240-332070/6	275.130435	1654322.0			6012.864412	Y
5	STD 240-332070/7	1178.934783	7879231.0			6683.347642	Y
6	STD 240-332070/8	11789.347826	79143040.0			6713.09738	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332070/9 Calibration Date: 06/18/2018 10:38

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0061809.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	5299		250	285	-12.3	20.0
Ethylene	Ave	5993	5712		477	501	-4.7	20.0
Acetylene	Ave	3017	3272		503	463	8.5	30.0
Ethane	Ave	6299	6090		519	536	-3.3	20.0
Propane	Ave	6376	6557		806	784	2.8	20.0
1,1,1-Trifluoroethane	Ave	2169	2622		11200	9240	20.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-332070/9 Calibration Date: 06/18/2018 10:38

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0061809.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.14	1.24
Ethylene	1.88	1.83	1.93
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.00	2.40
Propane	4.55	4.48	4.58
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-335947/3 Calibration Date: 07/12/2018 14:07

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071203.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	6444		304	285	6.6	20.0
Ethylene	Ave	5993	6008		502	501	0.2	20.0
Acetylene	Ave	3017	3719		571	463	23.3	30.0
Ethane	Ave	6299	6160		525	536	-2.2	20.0
Propane	Ave	6376	6221		767	786	-2.4	20.0
1,1,1-Trifluoroethane	Ave	2169	2600		11100	9240	19.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-335947/3 Calibration Date: 07/12/2018 14:07

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071203.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.89	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.01	2.41
Propane	4.56	4.51	4.61
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335947/19 Calibration Date: 07/12/2018 18:42

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071219.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	6685		315	285	10.6	20.0
Ethylene	Ave	5993	6141		513	501	2.5	20.0
Acetylene	Ave	3017	3681		565	463	22.0	30.0
Ethane	Ave	6299	6315		538	536	0.3	20.0
Propane	Ave	6376	6294		776	786	-1.3	20.0
1,1,1-Trifluoroethane	Ave	2169	2540		10800	9240	17.1	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335947/19 Calibration Date: 07/12/2018 18:42

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071219.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.14	1.24
Ethylene	1.88	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.01	2.41
Propane	4.55	4.51	4.61
1,1,1-Trifluoroethane	3.35	3.25	3.45

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: ZPID Start Date: 06/18/2018 08:53

Analysis Batch Number: 332070 End Date: 06/18/2018 10:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD 240-332070/3 IC		06/18/2018 08:53	1	Z0061803.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/4 IC		06/18/2018 09:10	1	Z0061804.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/5 IC		06/18/2018 09:28	1	Z0061805.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/6 IC		06/18/2018 09:45	1	Z0061806.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/7 IC		06/18/2018 10:02	1	Z0061807.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/8 IC		06/18/2018 10:20	1	Z0061808.D	HP-PLOT/Q 0.53(mm)
ICV 240-332070/9		06/18/2018 10:38	1	Z0061809.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: ZPID Start Date: 07/12/2018 14:07

Analysis Batch Number: 335947 End Date: 07/12/2018 18:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-335947/3		07/12/2018 14:07	1	Z0071203.D	HP-PLOT/Q 0.53(mm)
MB 240-335947/4		07/12/2018 14:25	1	Z0071204.D	HP-PLOT/Q 0.53(mm)
LCS 240-335947/5		07/12/2018 14:42	1	Z0071205.D	HP-PLOT/Q 0.53(mm)
LCSD 240-335947/6		07/12/2018 14:59	1	Z0071206.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 15:16	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 15:33	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 15:51	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 16:08	5		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 16:25	10		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 16:42	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 16:59	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 17:17	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/12/2018 17:34	1		HP-PLOT/Q 0.53(mm)
240-97969-2		07/12/2018 17:51	1	Z0071216.D	HP-PLOT/Q 0.53(mm)
240-97969-3		07/12/2018 18:08	1	Z0071217.D	HP-PLOT/Q 0.53(mm)
240-97969-4		07/12/2018 18:25	1	Z0071218.D	HP-PLOT/Q 0.53(mm)
CCV 240-335947/19		07/12/2018 18:42	1	Z0071219.D	HP-PLOT/Q 0.53(mm)

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
MSA-MW-51S-062718	240-97836-4	73
MSA-MW-47S-062718	240-97836-5	88
MSA-MW-49S-062818	240-97912-4	93
MSA-MW-46S-062818	240-97912-5	80
MSA-MW-48S-062918	240-97969-4	83
DMW-4S-062918	240-97969-5	86
	MB 240-334451/9-A	78
	MB 240-334809/13-A	66
	LCS 240-334451/10-A	84
	LCS 240-334809/14-A	84

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: MB 240-334451/9-A

Matrix: Water Date Extracted: 07/02/2018 13:49

Lab File ID:(1) R070508.D Lab File ID:(2)

Date Analyzed:(1) 07/05/2018 21:18 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334451/10-A	07/05/2018 21:45	
MSA-MW-51S-062718	240-97836-4	07/05/2018 22:13	
MSA-MW-47S-062718	240-97836-5	07/05/2018 22:40	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334451/9-A

Matrix: Water | Lab File ID: R070508.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/02/2018 13:49

Sample wt/vol: 250(mL) | Date Analyzed: 07/05/2018 21:18

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 334903 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R070509.D

Lab ID: LCS 240-334451/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1640	82	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: MB 240-334809/13-A

Matrix: Water Date Extracted: 07/05/2018 09:50

Lab File ID:(1) R070908.D Lab File ID:(2)

Date Analyzed:(1) 07/09/2018 17:08 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334809/14-A	07/09/2018 17:35	
MSA-MW-49S-062818	240-97912-4	07/09/2018 18:03	
MSA-MW-46S-062818	240-97912-5	07/09/2018 18:31	
MSA-MW-48S-062918	240-97969-4	07/09/2018 18:58	
DMW-4S-062918	240-97969-5	07/09/2018 19:26	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334809/13-A

Matrix: Water | Lab File ID: R070908.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 250(mL) | Date Analyzed: 07/09/2018 17:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	66		37-130

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R070909.D

Lab ID: LCS 240-334809/14-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1390	69	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCV 240-334903/7 Date Analyzed: 07/05/2018 20:50

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R070507.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-334903/7 CCVRT		07/05/2018 20:50	R070507.D	8.42		
MB 240-334451/9-A		07/05/2018 21:18	R070508.D	8.42		
LCS 240-334451/10-A		07/05/2018 21:45	R070509.D	8.42		
240-97836-4	MSA-MW-51S-062718	07/05/2018 22:13	R070510.D	8.42		
240-97836-5	MSA-MW-47S-062718	07/05/2018 22:40	R070511.D	8.42		
CCV 240-334903/14		07/06/2018 00:03	R070514.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCV 240-335290/7 Date Analyzed: 07/09/2018 16:40

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R070907.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-335290/7 CCVRT		07/09/2018 16:40	R070907.D	8.42		
MB 240-334809/13-A		07/09/2018 17:08	R070908.D	8.42		
LCS 240-334809/14-A		07/09/2018 17:35	R070909.D	8.42		
240-97912-4	MSA-MW-49S-062818	07/09/2018 18:03	R070910.D	8.42		
240-97912-5	MSA-MW-46S-062818	07/09/2018 18:31	R070911.D	8.42		
240-97969-4	MSA-MW-48S-062918	07/09/2018 18:58	R070912.D	8.42		
240-97969-5	DMW-4S-062918	07/09/2018 19:26	R070913.D	8.42		
CCV 240-335290/17		07/09/2018 21:16	R070917.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334903/7 Calibration Date: 07/05/2018 20:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070507.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	839504		98700	100000	-1.3	20.0
o-Terphenyl (Surr)	Ave	998632	950571		7610	8000	-4.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334903/7 Calibration Date: 07/05/2018 20:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070507.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334903/14 Calibration Date: 07/06/2018 00:03

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070514.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	880515		104000	100000	3.5	20.0
o-Terphenyl (Surr)	Ave	998632	1062893		8510	8000	6.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334903/14 Calibration Date: 07/06/2018 00:03

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070514.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335290/7 Calibration Date: 07/09/2018 16:40

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070907.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	834285		98100	100000	-1.9	20.0
o-Terphenyl (Surr)	Ave	998632	1026587		8220	8000	2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335290/7 Calibration Date: 07/09/2018 16:40

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070907.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335290/17 Calibration Date: 07/09/2018 21:16

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070917.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	857169		101000	100000	0.8	20.0
o-Terphenyl (Surr)	Ave	998632	1068522		8560	8000	7.0	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-335290/17 Calibration Date: 07/09/2018 21:16

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070917.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: RTC 240-334903/6 Date Analyzed: 07/05/2018 20:22

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R070506.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: RTC 240-335290/6 Date Analyzed: 07/09/2018 16:13

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R070906.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/05/2018 20:22

Analysis Batch Number: 334903 End Date: 07/06/2018 00:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-334903/6		07/05/2018 20:22	1	R070506.D	Rxi-5HT 0.53(mm)
CCV 240-334903/7 CCVRT		07/05/2018 20:50	1	R070507.D	Rxi-5HT 0.53(mm)
MB 240-334451/9-A		07/05/2018 21:18	1	R070508.D	Rxi-5HT 0.53(mm)
LCS 240-334451/10-A		07/05/2018 21:45	1	R070509.D	Rxi-5HT 0.53(mm)
240-97836-4		07/05/2018 22:13	1	R070510.D	Rxi-5HT 0.53(mm)
240-97836-5		07/05/2018 22:40	1	R070511.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/05/2018 23:08	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/05/2018 23:35	1		Rxi-5HT 0.53(mm)
CCV 240-334903/14		07/06/2018 00:03	1	R070514.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/09/2018 16:13

Analysis Batch Number: 335290 End Date: 07/10/2018 01:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-335290/6		07/09/2018 16:13	1	R070906.D	Rxi-5HT 0.53(mm)
CCV 240-335290/7 CCVRT		07/09/2018 16:40	1	R070907.D	Rxi-5HT 0.53(mm)
MB 240-334809/13-A		07/09/2018 17:08	1	R070908.D	Rxi-5HT 0.53(mm)
LCS 240-334809/14-A		07/09/2018 17:35	1	R070909.D	Rxi-5HT 0.53(mm)
240-97912-4		07/09/2018 18:03	1	R070910.D	Rxi-5HT 0.53(mm)
240-97912-5		07/09/2018 18:31	1	R070911.D	Rxi-5HT 0.53(mm)
240-97969-4		07/09/2018 18:58	1	R070912.D	Rxi-5HT 0.53(mm)
240-97969-5		07/09/2018 19:26	1	R070913.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 19:53	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 20:21	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 20:48	1		Rxi-5HT 0.53(mm)
CCV 240-335290/17		07/09/2018 21:16	1	R070917.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 21:43	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 22:11	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 22:38	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 23:06	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 23:33	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 00:01	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 00:28	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 00:55	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 01:23	1		Rxi-5HT 0.53(mm)
CCV 240-335290/27		07/10/2018 01:50	1		Rxi-5HT 0.53(mm)

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
MSA-MW-51S-062718	240-97836-4	77
MSA-MW-47S-062718	240-97836-5	80
MSA-MW-49S-062818	240-97912-4	83
MSA-MW-46S-062818	240-97912-5	83
MSA-MW-48S-062918	240-97969-4	84
DMW-4S-062918	240-97969-5	85
	MB 240-334079/13	77
	MB 240-334522/5	83
	LCS 240-334079/14	86
	LCS 240-334522/6	93
MSA-MW-47S-062718 MS	240-97836-5 MS	88
DMW-4S-062918 MS	240-97969-5 MS	94
MSA-MW-47S-062718 MSD	240-97836-5 MSD	83
DMW-4S-062918 MSD	240-97969-5 MSD	97

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: MB 240-334079/13

Matrix: Water Date Extracted: 06/29/2018 19:21

Lab File ID:(1) A0062913.D Lab File ID:(2)

Date Analyzed:(1) 06/29/2018 19:21 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334079/14	06/29/2018 20:02	
MSA-MW-51S-062718	240-97836-4	06/29/2018 22:02	
MSA-MW-47S-062718	240-97836-5	06/29/2018 22:40	
MSA-MW-47S-062718 MS	240-97836-5 MS	06/29/2018 23:19	
MSA-MW-47S-062718 MSD	240-97836-5 MSD	06/29/2018 23:59	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334079/13

Matrix: Water | Lab File ID: A0062913.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2018 19:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334079 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062914.D

Lab ID: LCS 240-334079/14 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	919	115	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062919.D

Lab ID: 240-97836-5 MS Client ID: MSA-MW-47S-062718 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	49 U	933	117	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0062920.D

Lab ID: 240-97836-5 MSD Client ID: MSA-MW-47S-062718 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Gasoline Range Organics [C6 - C10]	800	914	114	2	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: MB 240-334522/5

Matrix: Water Date Extracted: 07/03/2018 11:44

Lab File ID:(1) A0070305.D Lab File ID:(2)

Date Analyzed:(1) 07/03/2018 11:44 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334522/6	07/03/2018 12:30	
MSA-MW-49S-062818	240-97912-4	07/03/2018 13:14	
MSA-MW-46S-062818	240-97912-5	07/03/2018 13:59	
MSA-MW-48S-062918	240-97969-4	07/03/2018 14:43	
DMW-4S-062918	240-97969-5	07/03/2018 15:26	
DMW-4S-062918 MS	240-97969-5 MS	07/03/2018 16:11	
DMW-4S-062918 MSD	240-97969-5 MSD	07/03/2018 16:54	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334522/5

Matrix: Water | Lab File ID: A0070305.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 11:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070306.D

Lab ID: LCS 240-334522/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	874	109	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070311.D

Lab ID: 240-97969-5 MS Client ID: DMW-4S-062918 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	520	1410	111	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070312.D

Lab ID: 240-97969-5 MSD Client ID: DMW-4S-062918 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	1370	106	3	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVRT 240-334079/4 Date Analyzed: 06/29/2018 13:18

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0062904.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-334079/4		06/29/2018 13:18	A0062904.D	10.40		
CCV 240-334079/12		06/29/2018 18:42	A0062912.D	10.40		
MB 240-334079/13		06/29/2018 19:21	A0062913.D	10.40		
LCS 240-334079/14		06/29/2018 20:02	A0062914.D	10.40		
240-97836-4	MSA-MW-51S-062718	06/29/2018 22:02	A0062917.D	10.40		
240-97836-5	MSA-MW-47S-062718	06/29/2018 22:40	A0062918.D	10.40		
240-97836-5 MS	MSA-MW-47S-062718 MS	06/29/2018 23:19	A0062919.D	10.40		
240-97836-5 MSD	MSA-MW-47S-062718 MSD	06/29/2018 23:59	A0062920.D	10.40		
CCV 240-334079/21		06/30/2018 00:37	A0062921.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Sample No.: CCVRT 240-334522/4 Date Analyzed: 07/03/2018 11:03

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0070304.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-334522/4		07/03/2018 11:03	A0070304.D	10.40		
MB 240-334522/5		07/03/2018 11:44	A0070305.D	10.40		
LCS 240-334522/6		07/03/2018 12:30	A0070306.D	10.39		
240-97912-4	MSA-MW-49S-062818	07/03/2018 13:14	A0070307.D	10.40		
240-97912-5	MSA-MW-46S-062818	07/03/2018 13:59	A0070308.D	10.40		
240-97969-4	MSA-MW-48S-062918	07/03/2018 14:43	A0070309.D	10.40		
240-97969-5	DMW-4S-062918	07/03/2018 15:26	A0070310.D	10.40		
240-97969-5 MS	DMW-4S-062918 MS	07/03/2018 16:11	A0070311.D	10.40		
240-97969-5 MSD	DMW-4S-062918 MSD	07/03/2018 16:54	A0070312.D	10.40		
CCV 240-334522/13		07/03/2018 17:37	A0070313.D	10.41		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-97836-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

Calibration / Trifluorotoluene (Surr)

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

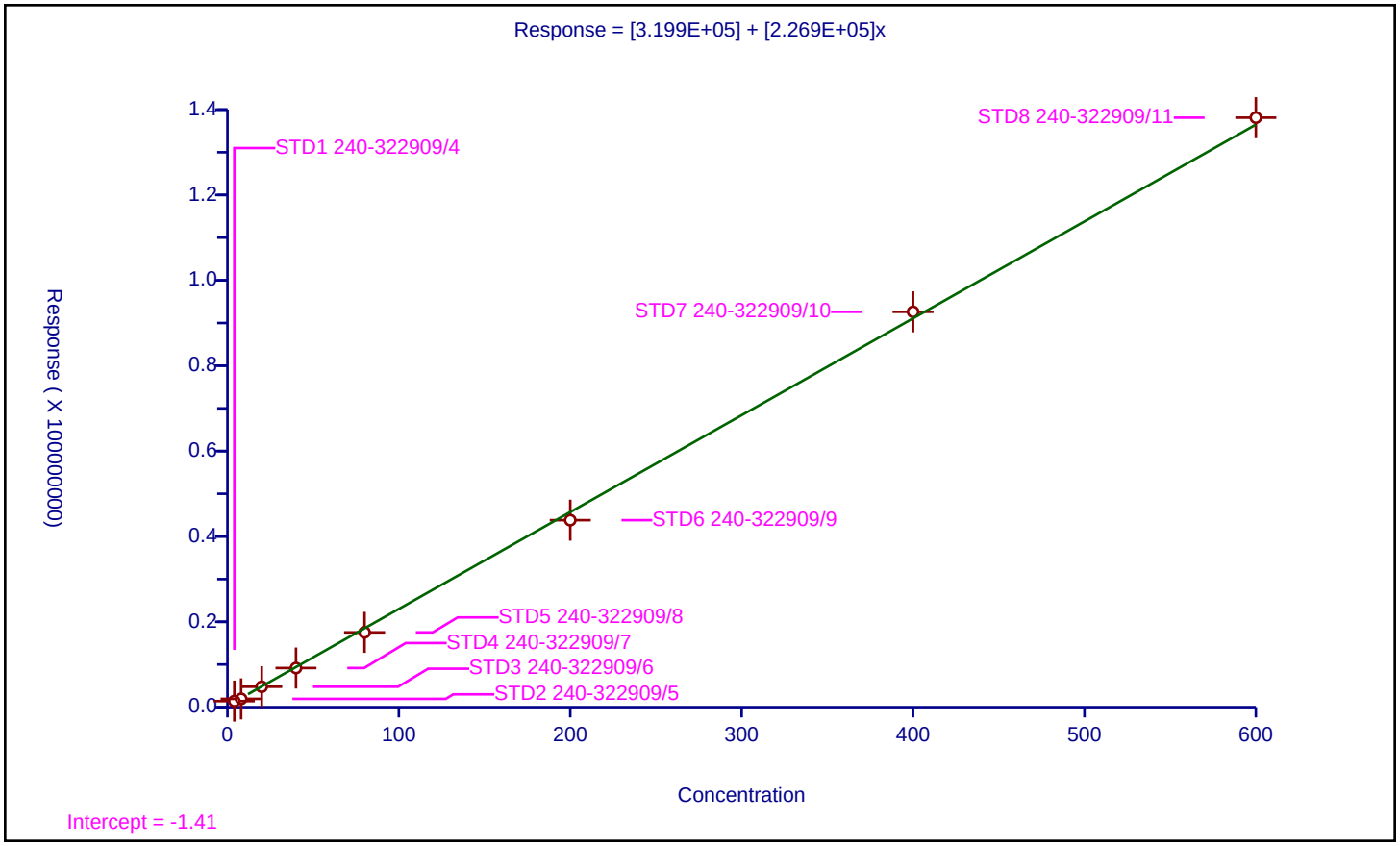
Curve Coefficients

Intercept:	3.199E+05
Slope:	2.269E+05

Error Coefficients

Standard Error:	1270000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD1 240-322909/4	4.0	1420776.0			355194.0	Y
2	STD2 240-322909/5	8.0	1944745.0			243093.125	Y
3	STD3 240-322909/6	20.0	4781241.0			239062.05	Y
4	STD4 240-322909/7	40.0	9170418.0			229260.45	Y
5	STD5 240-322909/8	80.0	17522730.0			219034.125	Y
6	STD6 240-322909/9	200.0	43807262.0			219036.31	Y
7	STD7 240-322909/10	400.0	92627018.0			231567.545	Y
8	STD8 240-322909/11	600.0	138110563.0			230184.271667	Y



Calibration / C6-C10

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

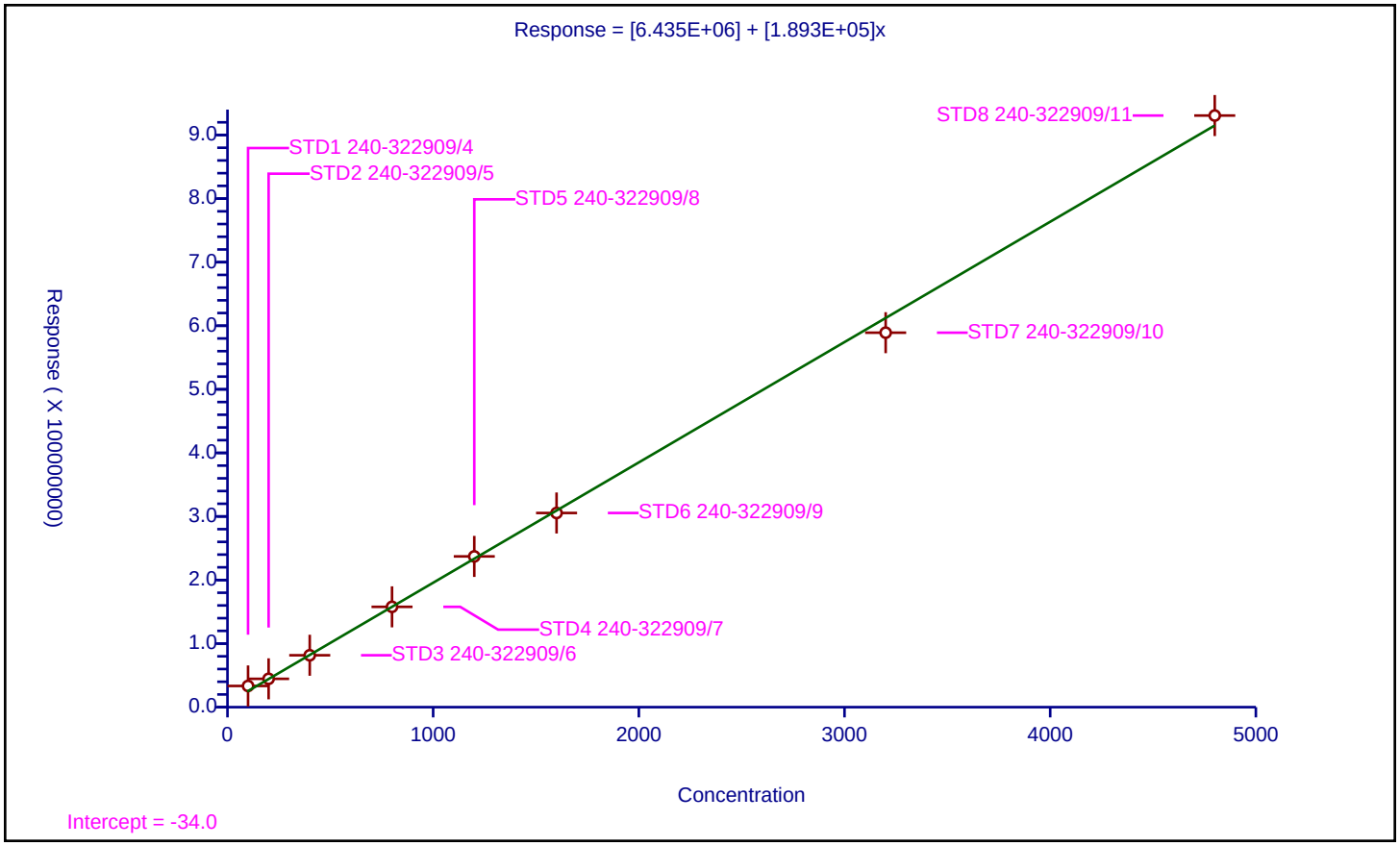
Curve Coefficients

Intercept:	6.435E+06
Slope:	1.893E+05

Error Coefficients

Standard Error:	12000000
Relative Standard Error:	17.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD1 240-322909/4	100.0	33354301.0			333543.01	Y
2	STD2 240-322909/5	200.0	44591278.0			222956.39	Y
3	STD3 240-322909/6	400.0	81639195.0			204097.9875	Y
4	STD4 240-322909/7	800.0	157804371.0			197255.46375	Y
5	STD5 240-322909/8	1200.0	237127867.0			197606.555833	Y
6	STD6 240-322909/9	1600.0	305456948.0			190910.5925	Y
7	STD7 240-322909/10	3200.0	589106674.0			184095.835625	Y
8	STD8 240-322909/11	4800.0	930667774.0			193889.119583	Y



Calibration / C6-C12

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	
RF Rounding:	0

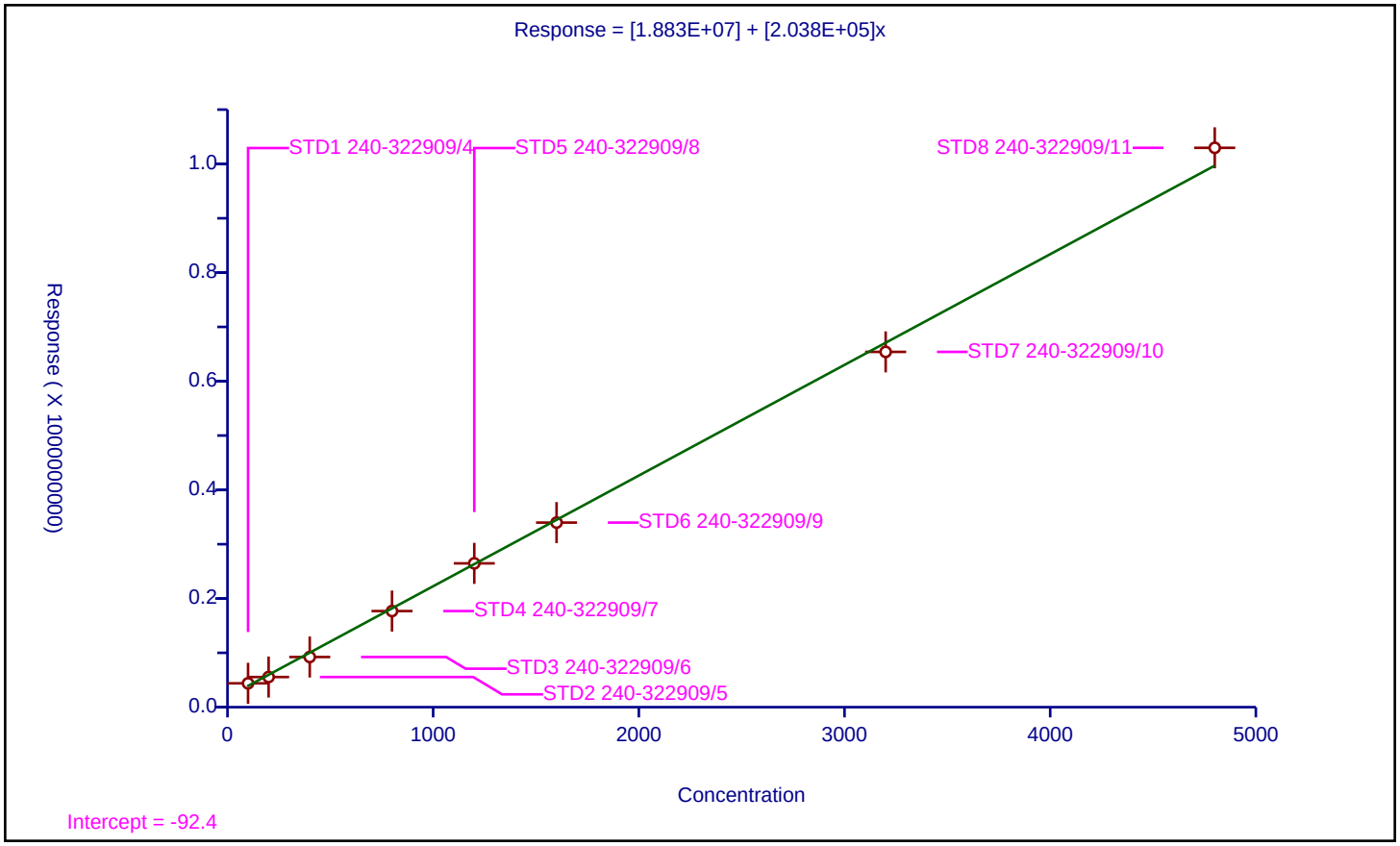
Curve Coefficients

Intercept:	1.883E+07
Slope:	2.038E+05

Error Coefficients

Standard Error:	15900000
Relative Standard Error:	11.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	STD1 240-322909/4	100.0	43920328.0			439203.28	Y
2	STD2 240-322909/5	200.0	55463455.0			277317.275	Y
3	STD3 240-322909/6	400.0	92308420.0			230771.05	Y
4	STD4 240-322909/7	800.0	176920348.0			221150.435	Y
5	STD5 240-322909/8	1200.0	264739378.0			220616.148333	Y
6	STD6 240-322909/9	1600.0	339760877.0			212350.548125	Y
7	STD7 240-322909/10	3200.0	654009953.0			204378.110313	Y
8	STD8 240-322909/11	4800.0	1029672698.0			214515.145417	Y



FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-334079/4 Calibration Date: 06/29/2018 13:18

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062904.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		210536		856	800	7.0	20.0
C6-C12	Lin1		238767		845	800	5.6	20.0
Trifluorotoluene (Surr)	Lin1		194101		32.8	40.0	-18.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-334079/4 Calibration Date: 06/29/2018 13:18

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062904.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334079/12 Calibration Date: 06/29/2018 18:42

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062912.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		212427		864	800	8.0	20.0
C6-C12	Lin1		239332		847	800	5.9	20.0
Trifluorotoluene (Surr)	Lin1		207957		35.2	40.0	-11.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334079/12 Calibration Date: 06/29/2018 18:42

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062912.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334079/21 Calibration Date: 06/30/2018 00:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062921.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		216787		882	800	10.3	20.0
C6-C12	Lin1		246195		874	800	9.3	20.0
Trifluorotoluene (Surr)	Lin1		203446		34.4	40.0	-13.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334079/21 Calibration Date: 06/30/2018 00:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0062921.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.02
C6-C12	13.25	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-334522/4 Calibration Date: 07/03/2018 11:03

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070304.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		217956		887	800	10.9	20.0
C6-C12	Lin1		245621		872	800	9.0	20.0
Trifluorotoluene (Surr)	Lin1		207701		35.2	40.0	-12.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVRT 240-334522/4 Calibration Date: 07/03/2018 11:03

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070304.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.03
C6-C12	13.24	6.97	19.51
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334522/13 Calibration Date: 07/03/2018 17:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070313.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		216612		881	800	10.2	20.0
C6-C12	Lin1		246541		876	800	9.4	20.0
Trifluorotoluene (Surr)	Lin1		217738		37.0	40.0	-7.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 240-334522/13 Calibration Date: 07/03/2018 17:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070313.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.03
C6-C12	13.24	6.97	19.51
Trifluorotoluene (Surr)	10.41	10.35	10.45

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: AFID Start Date: 04/18/2018 08:10

Analysis Batch Number: 322909 End Date: 04/18/2018 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-322909/4 IC		04/18/2018 08:10	1	A0041804.D	RTX-VRX 0.45(mm)
STD2 240-322909/5 IC		04/18/2018 08:47	1	A0041805.D	RTX-VRX 0.45(mm)
STD3 240-322909/6 IC		04/18/2018 09:24	1	A0041806.D	RTX-VRX 0.45(mm)
STD4 240-322909/7 ICRT		04/18/2018 10:02	1	A0041807.D	RTX-VRX 0.45(mm)
STD5 240-322909/8 IC		04/18/2018 10:39	1	A0041808.D	RTX-VRX 0.45(mm)
STD6 240-322909/9 IC		04/18/2018 11:17	1	A0041809.D	RTX-VRX 0.45(mm)
STD7 240-322909/10 IC		04/18/2018 11:54	1	A0041810.D	RTX-VRX 0.45(mm)
STD8 240-322909/11 IC		04/18/2018 12:32	1	A0041811.D	RTX-VRX 0.45(mm)
ICV 240-322909/12		04/18/2018 13:09	1	A0041812.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: AFID Start Date: 06/29/2018 13:18

Analysis Batch Number: 334079 End Date: 06/30/2018 00:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-334079/4		06/29/2018 13:18	1	A0062904.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 13:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 14:38	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 15:18	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 15:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 16:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 17:21	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 18:02	1		RTX-VRX 0.45(mm)
CCV 240-334079/12		06/29/2018 18:42	1	A0062912.D	RTX-VRX 0.45(mm)
MB 240-334079/13		06/29/2018 19:21	1	A0062913.D	RTX-VRX 0.45(mm)
LCS 240-334079/14		06/29/2018 20:02	1	A0062914.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 20:41	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2018 21:22	1		RTX-VRX 0.45(mm)
240-97836-4		06/29/2018 22:02	1	A0062917.D	RTX-VRX 0.45(mm)
240-97836-5		06/29/2018 22:40	1	A0062918.D	RTX-VRX 0.45(mm)
240-97836-5 MS		06/29/2018 23:19	1	A0062919.D	RTX-VRX 0.45(mm)
240-97836-5 MSD		06/29/2018 23:59	1	A0062920.D	RTX-VRX 0.45(mm)
CCV 240-334079/21		06/30/2018 00:37	1	A0062921.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: AFID Start Date: 07/03/2018 11:03

Analysis Batch Number: 334522 End Date: 07/03/2018 17:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-334522/4		07/03/2018 11:03	1	A0070304.D	RTX-VRX 0.45(mm)
MB 240-334522/5		07/03/2018 11:44	1	A0070305.D	RTX-VRX 0.45(mm)
LCS 240-334522/6		07/03/2018 12:30	1	A0070306.D	RTX-VRX 0.45(mm)
240-97912-4		07/03/2018 13:14	1	A0070307.D	RTX-VRX 0.45(mm)
240-97912-5		07/03/2018 13:59	1	A0070308.D	RTX-VRX 0.45(mm)
240-97969-4		07/03/2018 14:43	1	A0070309.D	RTX-VRX 0.45(mm)
240-97969-5		07/03/2018 15:26	1	A0070310.D	RTX-VRX 0.45(mm)
240-97969-5 MS		07/03/2018 16:11	1	A0070311.D	RTX-VRX 0.45(mm)
240-97969-5 MSD		07/03/2018 16:54	1	A0070312.D	RTX-VRX 0.45(mm)
CCV 240-334522/13		07/03/2018 17:37	1	A0070313.D	RTX-VRX 0.45(mm)

SAMPLE CALC	SAMPLE ID	MSA-MW-49S-062818				
	DILUTION	COMPOUND OF INTEREST AREA		Sample Volume (ML)	AVE RRF	CONCENTRATION PPB
	1	96759289		5	189290.1940	477.17
			Final Volume (ML)	Y-INTERCEPT		
			5	6434878.01		

FORM VI

GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA

CURVE EVALUATION

Sample Calculation - Page 2

Lab Name: TestAmerica Canton Job No.: 240-96479-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Client Sample ID: MSA-MW-49S-062818 | Lab Sample ID: 240-97912-4

Matrix: Water | Lab File ID: A0070307.D

Analysis Method: 8015C | Date Collected: 06/28/2018 14:05

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2018 13:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 334522 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	480		100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		56-120

TestAmerica Canton
Target Compound Quantitation Report

Data File: \\ChromNA\Canton\ChromData\AFID\20180703-77593.b\A0070307.D
Lims ID: 240-97912-A-4
Client ID: MSA-MW-49S-062818
Sample Type: Client
Inject. Date: 03-Jul-2018 13:14:57 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0077593-007
Operator ID: Instrument ID: AFID

Method: \\ChromNA\Canton\ChromData\AFID\20180703-77593.b\A80218015.m
Limit Group: GCV 8015C GRO ICAL
Last Update: 05-Jul-2018 06:44:37 Calib Date: 18-Apr-2018 12:32:11
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Canton\ChromData\AFID\20180418-75011.b\A0041811.D

Column 1 : Det: GC FID1A
Process Host: XAWRK019

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	10.395	10.395	0.000	7864271	33.2	
A 5 C6-C10	11.998	(6.970-17.025)		96759289	477.2	

Reagents:

VGGASURROGATE_00046 Amount Added: 1.00 Units: uL Run Reagent

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
MSA-MW-51D-062718	240-97836-2
MSA-MW-51I-062718	240-97836-3
MSA-MW-51S-062718	240-97836-4
MSA-MW-47S-062718	240-97836-5
MSA-MW-47I-062718	240-97836-6
MSA-MW-47D-062718	240-97836-7
MSA-MW-49D-062818	240-97912-2
MSA-MW-49I-062818	240-97912-3
MSA-MW-49S-062818	240-97912-4
MSA-MW-46S-062818	240-97912-5
MSA-MW-46I-062818	240-97912-6
MSA-MW-46D-062818	240-97912-7
MSA-MW-48D-062918	240-97969-2
MSA-MW-48I-062918	240-97969-3
MSA-MW-48S-062918	240-97969-4
DMW-4S-062918	240-97969-5
DMW-4I-062918	240-97969-6
DMW-4D-062918	240-97969-7

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MT6500ICV_00045 Concentration Units: ug/L

CCV Source: MTICPCCV_00130

Analyte	ICV 240-335034/4 07/06/2018 10:19				CCV 240-335034/42 07/06/2018 13:28				CCV 240-335034/55 07/06/2018 14:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25600		25000	102	51900		50000	104	49900		50000	100
Magnesium	25700		25000	103	52000		50000	104	49900		50000	100
Potassium	24800		25000	99	50300		50000	101	49800		50000	100
SiO2, Silica	11600		10700	108	11400		10700	107	11400		10700	106
Sodium	25100		25000	100	51100		50000	102	49800		50000	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MT6500ICV_00045 Concentration Units: ug/L

CCV Source: MTICPCCV_00130

Analyte	CCV 240-335034/67 07/06/2018 15:51				CCV 240-335034/74 07/06/2018 16:24							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49600		50000	99	48400		50000	97				
Magnesium	49600		50000	99	48400		50000	97				
Potassium	49400		50000	99	48600		50000	97				
SiO2, Silica	11400		10700	106	11200		10700	104				
Sodium	49800		50000	100	48800		50000	98				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTTRCRIC_00059 Concentration Units: ug/L

CCV Source: MTTRCRIC_00059

Analyte	ICVL 240-335034/6 07/06/2018 10:28				CCVL 240-335034/76 07/06/2018 16:33							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4860	J	5000	97	4760	J	5000	95				
Magnesium	4950	J	5000	99	4830	J	5000	97				
Potassium	4660	J	5000	93	4810	J	5000	96				
SiO2, Silica	1020	J	1070	95	1070	J	1070	100				
Sodium	4730	J	5000	95	4760	J	5000	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-334578/7 07/02/2018 11:34				CCV 240-334578/19 07/02/2018 12:31				CCV 240-334578/31 07/02/2018 13:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	37.9		40.0	95	50.3		50.0	101	49.8		50.0	100
Arsenic	38.1		40.0	95	52.2		50.0	104	51.7		50.0	103
Barium	38.3		40.0	96	49.8		50.0	100	48.0		50.0	96
Beryllium	40.3		40.0	101	50.3		50.0	101	46.4		50.0	93
Cadmium	37.5		40.0	94	50.0		50.0	100	49.6		50.0	99
Chromium	38.0		40.0	95	51.4		50.0	103	51.6		50.0	103
Cobalt	38.1		40.0	95	50.9		50.0	102	51.3		50.0	103
Copper	39.6		40.0	99	51.5		50.0	103	52.3		50.0	105
Dissolved Iron	9430		10000	94	12700		12500	101	12900		12500	103
Dissolved Lead	38.3		40.0	96	51.3		50.0	103	54.4		50.0	109
Dissolved Manganese	191		200	96	253		250	101	255		250	102
Dissolved Molybdenum	35.8		40.0	90	51.6		50.0	103	52.3		50.0	105
Dissolved Nickel	37.9		40.0	95	51.0		50.0	102	51.1		50.0	102
Dissolved Selenium	38.0		40.0	95	50.0		50.0	100	50.5		50.0	101
Dissolved Silver	36.1		40.0	90	50.4		50.0	101	50.2		50.0	100
Dissolved Thallium	37.7		40.0	94	51.2		50.0	102	54.5		50.0	109
Dissolved Vanadium	37.6		40.0	94	50.9		50.0	102	51.1		50.0	102
Zinc	38.6		40.0	97	51.3		50.0	103	51.9		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-334578/36 07/02/2018 13:48				CCV 240-334578/48 07/02/2018 14:42							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	47.9		50.0	96	50.0		50.0	100				
Arsenic	50.2		50.0	100	53.9		50.0	108				
Barium	46.4		50.0	93	48.9		50.0	98				
Beryllium	46.4		50.0	93	49.4		50.0	99				
Cadmium	47.4		50.0	95	49.8		50.0	100				
Chromium	49.7		50.0	99	51.2		50.0	102				
Cobalt	49.7		50.0	99	51.1		50.0	102				
Copper	51.3		50.0	103	52.4		50.0	105				
Dissolved Iron	12400		12500	99	12800		12500	102				
Dissolved Lead	48.4		50.0	97	52.0		50.0	104				
Dissolved Manganese	245		250	98	255		250	102				
Dissolved Molybdenum	49.1		50.0	98	52.7		50.0	105				
Dissolved Nickel	49.6		50.0	99	51.5		50.0	103				
Dissolved Selenium	50.0		50.0	100	50.5		50.0	101				
Dissolved Silver	47.0		50.0	94	50.6		50.0	101				
Dissolved Thallium	48.2		50.0	96	51.6		50.0	103				
Dissolved Vanadium	49.7		50.0	99	50.7		50.0	101				
Zinc	49.6		50.0	99	51.6		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-334578/9 07/02/2018 11:43				CCVL 240-334578/87 07/02/2018 17:38							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.94	J	2.00	97	2.00		2.00	100				
Arsenic	5.47		5.00	109	4.87	J	5.00	97				
Barium	4.85	J	5.00	97	5.24		5.00	105				
Beryllium	0.758	J	1.00	76	0.723	J	1.00	72				
Cadmium	0.979	J	1.00	98	1.04		1.00	104				
Chromium	2.15		2.00	107	2.12		2.00	106				
Cobalt	1.08		1.00	108	1.05		1.00	105				
Copper	2.13		2.00	106	2.32		2.00	116				
Dissolved Iron	104		100	104	105		100	105				
Dissolved Lead	1.08		1.00	108	1.15		1.00	115				
Dissolved Manganese	5.36		5.00	107	5.51		5.00	110				
Dissolved Molybdenum	5.25		5.00	105	5.11		5.00	102				
Dissolved Nickel	1.95	J	2.00	98	1.98	J	2.00	99				
Dissolved Selenium	5.57		5.00	111	6.36		5.00	127				
Dissolved Silver	1.01		1.00	101	0.956	J	1.00	96				
Dissolved Thallium	1.11		1.00	111	1.10		1.00	110				
Dissolved Vanadium	5.10		5.00	102	5.21		5.00	104				
Zinc	22.0		20.0	110	22.1		20.0	110				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-334818/7 07/03/2018 12:50				CCV 240-334818/152 07/04/2018 00:24				CCV 240-334818/164 07/04/2018 01:18			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.8		40.0	104	50.2		50.0	100	50.8		50.0	102
Arsenic	42.1		40.0	105	51.7		50.0	103	51.4		50.0	103
Barium	41.3		40.0	103	51.9		50.0	104	53.9		50.0	108
Beryllium	40.3		40.0	101	50.4		50.0	101	50.1		50.0	100
Cadmium	41.5		40.0	104	49.0		50.0	98	49.0		50.0	98
Chromium	41.2		40.0	103	50.2		50.0	100	49.7		50.0	99
Cobalt	41.6		40.0	104	50.6		50.0	101	50.5		50.0	101
Copper	43.4		40.0	108	50.8		50.0	102	50.7		50.0	101
Dissolved Iron	10100		10000	101	12600		12500	101	12700		12500	102
Dissolved Lead	41.3		40.0	103	52.8		50.0	106	53.9		50.0	108
Dissolved Manganese	200		200	100	251		250	100	251		250	100
Dissolved Molybdenum	41.0		40.0	102	50.9		50.0	102	51.0		50.0	102
Dissolved Nickel	40.9		40.0	102	47.0		50.0	94	47.1		50.0	94
Dissolved Selenium	42.0		40.0	105	55.0		50.0	110	53.6		50.0	107
Dissolved Silver	40.7		40.0	102	49.8		50.0	100	51.0		50.0	102
Dissolved Thallium	40.7		40.0	102	53.3		50.0	107	55.2		50.0	110
Dissolved Vanadium	41.2		40.0	103	49.4		50.0	99	49.9		50.0	100
Zinc	41.9		40.0	105	50.9		50.0	102	50.5		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-334818/176 07/04/2018 02:11				CCV 240-334818/181 07/04/2018 02:34							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.2		50.0	100	50.7		50.0	101				
Arsenic	50.8		50.0	102	51.6		50.0	103				
Barium	52.9		50.0	106	52.7		50.0	105				
Beryllium	50.4		50.0	101	50.0		50.0	100				
Cadmium	48.8		50.0	98	49.0		50.0	98				
Chromium	49.0		50.0	98	49.5		50.0	99				
Cobalt	49.5		50.0	99	50.1		50.0	100				
Copper	49.8		50.0	100	49.8		50.0	100				
Dissolved Iron	12200		12500	98	12500		12500	100				
Dissolved Lead	52.5		50.0	105	53.1		50.0	106				
Dissolved Manganese	244		250	97	248		250	99				
Dissolved Molybdenum	50.5		50.0	101	50.8		50.0	102				
Dissolved Nickel	47.3		50.0	95	46.9		50.0	94				
Dissolved Selenium	53.0		50.0	106	52.9		50.0	106				
Dissolved Silver	49.5		50.0	99	50.1		50.0	100				
Dissolved Thallium	53.8		50.0	108	53.8		50.0	108				
Dissolved Vanadium	48.5		50.0	97	49.1		50.0	98				
Zinc	49.6		50.0	99	49.8		50.0	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-334818/9 07/03/2018 12:59				CCVL 240-334818/183 07/04/2018 02:43							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.09		2.00	104	1.95	J	2.00	98				
Arsenic	5.22		5.00	104	5.43		5.00	109				
Barium	5.13		5.00	103	5.42		5.00	108				
Beryllium	0.803	J	1.00	80	0.889	J	1.00	89				
Cadmium	1.06		1.00	106	0.997	J	1.00	100				
Chromium	2.11		2.00	106	2.02		2.00	101				
Cobalt	1.07		1.00	107	1.07		1.00	107				
Copper	2.19		2.00	110	2.10		2.00	105				
Dissolved Iron	115		100	115	113		100	113				
Dissolved Lead	1.02		1.00	102	1.05		1.00	105				
Dissolved Manganese	5.20		5.00	104	5.40		5.00	108				
Dissolved Molybdenum	5.30		5.00	106	5.01		5.00	100				
Dissolved Nickel	2.01		2.00	101	1.88	J	2.00	94				
Dissolved Selenium	5.24		5.00	105	6.42		5.00	128				
Dissolved Silver	1.03		1.00	103	0.964	J	1.00	96				
Dissolved Thallium	1.06		1.00	106	1.10		1.00	110				
Dissolved Vanadium	5.15		5.00	103	4.95	J	5.00	99				
Zinc	21.4		20.0	107	20.7		20.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-336230/7 07/13/2018 13:20				CCV 240-336230/167 07/14/2018 02:03				CCV 240-336230/179 07/14/2018 02:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	42.3		40.0	106	45.1		50.0	90	46.2		50.0	92
Arsenic	41.8		40.0	104	49.2		50.0	98	50.0		50.0	100
Barium	39.5		40.0	99	47.1		50.0	94	48.5		50.0	97
Cadmium	40.3		40.0	101	46.0		50.0	92	47.6		50.0	95
Chromium	40.3		40.0	101	45.2		50.0	90	45.7		50.0	91
Cobalt	39.9		40.0	100	44.8		50.0	90	45.4		50.0	91
Copper	42.6		40.0	106	45.8		50.0	92	46.1		50.0	92
Dissolved Iron	10100		10000	101	11900		12500	95	11900		12500	95
Dissolved Lead	41.4		40.0	104	45.4		50.0	91	45.7		50.0	91
Dissolved Manganese	206		200	103	236		250	94	244		250	97
Dissolved Molybdenum	40.4		40.0	101	48.0		50.0	96	49.4		50.0	99
Dissolved Nickel	41.5		40.0	104	45.9		50.0	92	46.8		50.0	94
Dissolved Selenium	41.6		40.0	104	49.0		50.0	98	50.6		50.0	101
Dissolved Silver	39.7		40.0	99	46.0		50.0	92	47.3		50.0	95
Dissolved Thallium	40.8		40.0	102	45.5		50.0	91	44.8		50.0	90
Dissolved Vanadium	40.3		40.0	101	47.5		50.0	95	48.1		50.0	96
Beryllium	40.8		40.0	102	48.1		50.0	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336230/7 07/13/2018 13:20				CCV 240-336230/155 07/14/2018 01:09				CCV 240-336230/187 07/14/2018 03:32			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	42.3		40.0	106	47.5		50.0	95	47.7		50.0	95
Arsenic	41.8		40.0	104	49.4		50.0	99	49.7		50.0	99
Barium	39.5		40.0	99	47.3		50.0	95	49.2		50.0	98
Cadmium	40.3		40.0	101	46.2		50.0	92	46.9		50.0	94
Chromium	40.3		40.0	101	45.5		50.0	91	45.8		50.0	92
Cobalt	39.9		40.0	100	45.1		50.0	90	45.4		50.0	91
Copper	42.6		40.0	106	45.9		50.0	92	46.0		50.0	92
Dissolved Iron	10100		10000	101	11600		12500	93	11900		12500	96
Dissolved Lead	41.4		40.0	104	46.0		50.0	92	46.6		50.0	93
Dissolved Manganese	206		200	103	237		250	95	239		250	96
Dissolved Molybdenum	40.4		40.0	101	48.2		50.0	96	48.7		50.0	97
Dissolved Nickel	41.5		40.0	104	46.2		50.0	92	46.4		50.0	93
Dissolved Selenium	41.6		40.0	104	49.6		50.0	99	50.8		50.0	102
Dissolved Silver	39.7		40.0	99	45.9		50.0	92	46.4		50.0	93
Dissolved Thallium	40.8		40.0	102	45.1		50.0	90	46.2		50.0	92
Dissolved Vanadium	40.3		40.0	101	47.2		50.0	94	48.3		50.0	97
Beryllium	40.8		40.0	102					52.3		50.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336230/9 07/13/2018 13:29				CCVL 240-336230/189 07/14/2018 03:41							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.03		2.00	102	1.74	J	2.00	87				
Arsenic	5.25		5.00	105	5.22		5.00	104				
Barium	5.12		5.00	102	4.73	J	5.00	95				
Cadmium	1.01		1.00	101	0.931	J	1.00	93				
Chromium	1.96	J	2.00	98	1.77	J	2.00	88				
Cobalt	1.03		1.00	103	0.975	J	1.00	98				
Copper	2.09		2.00	104	1.84	J	2.00	92				
Dissolved Iron	113		100	113	105		100	105				
Dissolved Lead	1.04		1.00	104	0.927	J	1.00	93				
Dissolved Manganese	4.36	J	5.00	87	4.25	J	5.00	85				
Dissolved Molybdenum	5.12		5.00	102	4.75	J	5.00	95				
Dissolved Nickel	2.09		2.00	104	1.91	J	2.00	95				
Dissolved Selenium	5.48		5.00	110	5.82		5.00	116				
Dissolved Silver	1.01		1.00	101	0.941	J	1.00	94				
Dissolved Thallium	1.02		1.00	102	0.932	J	1.00	93				
Dissolved Vanadium	4.99	J	5.00	100	4.81	J	5.00	96				
Beryllium	0.845	J	1.00	85	1.09		1.00	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-336326/7 07/14/2018 10:17				CCV 240-336326/41 07/14/2018 12:49				CCV 240-336326/53 07/14/2018 13:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	38.9		40.0	97	47.9		50.0	96	49.2		50.0	98
Zinc	41.0		40.0	102	49.6		50.0	99	50.0		50.0	100
Antimony	40.2		40.0	101	48.9		50.0	98	49.3		50.0	99
Arsenic	41.5		40.0	104	50.0		50.0	100	50.7		50.0	101
Barium	38.8		40.0	97	48.0		50.0	96	48.1		50.0	96
Cadmium	39.3		40.0	98	48.0		50.0	96	47.9		50.0	96
Chromium	42.0		40.0	105	51.4		50.0	103	51.6		50.0	103
Cobalt	41.2		40.0	103	49.5		50.0	99	50.3		50.0	101
Copper	43.0		40.0	107	51.7		50.0	103	52.2		50.0	104
Iron	10500		10000	105	12900		12500	103	13000		12500	104
Lead	42.5		40.0	106	50.4		50.0	101	50.3		50.0	101
Manganese	213		200	106	261		250	104	264		250	106
Molybdenum	40.7		40.0	102	50.8		50.0	102	50.3		50.0	101
Nickel	40.9		40.0	102	50.2		50.0	100	48.9		50.0	98
Selenium	42.0		40.0	105	50.6		50.0	101	50.9		50.0	102
Silver	40.2		40.0	101	48.8		50.0	98	48.9		50.0	98
Thallium	41.7		40.0	104	50.2		50.0	100	50.5		50.0	101
Vanadium	41.4		40.0	104	50.6		50.0	101	50.9		50.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-336326/65 07/14/2018 14:36											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	51.4		50.0	103								
Zinc	50.2		50.0	100								
Antimony	50.5		50.0	101								
Arsenic	51.7		50.0	103								
Barium	49.5		50.0	99								
Cadmium	48.4		50.0	97								
Chromium	52.2		50.0	104								
Cobalt	50.8		50.0	102								
Copper	52.6		50.0	105								
Iron	13000		12500	104								
Lead	50.8		50.0	102								
Manganese	264		250	105								
Molybdenum	51.3		50.0	103								
Nickel	49.8		50.0	100								
Selenium	52.0		50.0	104								
Silver	50.0		50.0	100								
Thallium	50.9		50.0	102								
Vanadium	51.3		50.0	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336326/7 07/14/2018 10:17				CCV 240-336326/70 07/14/2018 14:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	38.9		40.0	97	51.1		50.0	102				
Zinc	41.0		40.0	102	49.8		50.0	100				
Antimony	40.2		40.0	101	50.9		50.0	102				
Arsenic	41.5		40.0	104	51.9		50.0	104				
Barium	38.8		40.0	97	49.7		50.0	99				
Cadmium	39.3		40.0	98	48.6		50.0	97				
Chromium	42.0		40.0	105	52.2		50.0	104				
Cobalt	41.2		40.0	103	50.7		50.0	101				
Copper	43.0		40.0	107	52.0		50.0	104				
Iron	10500		10000	105	13100		12500	105				
Lead	42.5		40.0	106	50.5		50.0	101				
Manganese	213		200	106	267		250	107				
Molybdenum	40.7		40.0	102	51.1		50.0	102				
Nickel	40.9		40.0	102	49.6		50.0	99				
Selenium	42.0		40.0	105	52.3		50.0	105				
Silver	40.2		40.0	101	50.1		50.0	100				
Thallium	41.7		40.0	104	50.6		50.0	101				
Vanadium	41.4		40.0	104	51.5		50.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336326/9 07/14/2018 10:26				CCVL 240-336326/72 07/14/2018 15:07							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.817	J	1.00	82	0.834	J	1.00	83				
Zinc	18.8	J	20.0	94	18.1	J	20.0	91				
Antimony	1.97	J	2.00	98	1.91	J	2.00	96				
Arsenic	5.12		5.00	102	5.10		5.00	102				
Barium	4.80	J	5.00	96	4.86	J	5.00	97				
Cadmium	0.977	J	1.00	98	0.962	J	1.00	96				
Chromium	2.06		2.00	103	2.08		2.00	104				
Cobalt	1.05		1.00	105	1.05		1.00	105				
Copper	2.16		2.00	108	2.14		2.00	107				
Iron	115		100	115	113		100	113				
Lead	1.07		1.00	107	1.01		1.00	101				
Manganese	4.70	J	5.00	94	4.75	J	5.00	95				
Molybdenum	5.20		5.00	104	4.95	J	5.00	99				
Nickel	2.06		2.00	103	1.93	J	2.00	96				
Selenium	5.29		5.00	106	5.28		5.00	106				
Silver	1.03		1.00	103	0.968	J	1.00	97				
Thallium	1.09		1.00	109	1.04		1.00	104				
Vanadium	5.08		5.00	102	4.93	J	5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-336575/7 07/16/2018 09:48				CCV 240-336575/67 07/16/2018 14:15				CCV 240-336575/88 07/16/2018 15:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Antimony	41.5		40.0	104	50.8		50.0	102	49.7		50.0	99
Dissolved Arsenic	39.9		40.0	100	49.4		50.0	99	48.1		50.0	96
Dissolved Barium	39.9		40.0	100	47.6		50.0	95	46.6		50.0	93
Dissolved Beryllium	39.4		40.0	99	46.1		50.0	92	45.5		50.0	91
Dissolved Cadmium	40.2		40.0	101	49.8		50.0	100	49.0		50.0	98
Dissolved Chromium	39.9		40.0	100	50.0		50.0	100	49.3		50.0	99
Dissolved Cobalt	40.2		40.0	100	49.6		50.0	99	48.6		50.0	97
Dissolved Copper	41.5		40.0	104	49.8		50.0	100	51.6		50.0	103
Dissolved Iron	9940		10000	99	12600		12500	100	12500		12500	100
Dissolved Lead	41.3		40.0	103	49.5		50.0	99	48.4		50.0	97
Dissolved Manganese	199		200	100	251		250	100	241		250	96
Dissolved Molybdenum	40.8		40.0	102	51.4		50.0	103	52.1		50.0	104
Dissolved Nickel	39.8		40.0	99	49.7		50.0	99	48.5		50.0	97
Dissolved Selenium	40.2		40.0	101	48.3		50.0	97	47.4		50.0	95
Dissolved Silver	40.1		40.0	100	49.5		50.0	99	50.1		50.0	100
Dissolved Thallium	40.9		40.0	102	49.3		50.0	99	48.3		50.0	97
Dissolved Vanadium	39.7		40.0	99	49.6		50.0	99	48.9		50.0	98
Zinc	40.0		40.0	100	49.4		50.0	99	47.8		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336575/7 07/16/2018 09:48				CCV 240-336575/76 07/16/2018 14:56							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Antimony	41.5		40.0	104	50.2		50.0	100				
Dissolved Arsenic	39.9		40.0	100	48.9		50.0	98				
Dissolved Barium	39.9		40.0	100	47.8		50.0	96				
Dissolved Beryllium	39.4		40.0	99	46.2		50.0	92				
Dissolved Cadmium	40.2		40.0	101	49.2		50.0	98				
Dissolved Chromium	39.9		40.0	100	49.4		50.0	99				
Dissolved Cobalt	40.2		40.0	100	49.3		50.0	99				
Dissolved Copper	41.5		40.0	104	49.9		50.0	100				
Dissolved Iron	9940		10000	99	12400		12500	99				
Dissolved Lead	41.3		40.0	103	48.8		50.0	98				
Dissolved Manganese	199		200	100	247		250	99				
Dissolved Molybdenum	40.8		40.0	102	50.9		50.0	102				
Dissolved Nickel	39.8		40.0	99	48.8		50.0	98				
Dissolved Selenium	40.2		40.0	101	48.6		50.0	97				
Dissolved Silver	40.1		40.0	100	49.2		50.0	98				
Dissolved Thallium	40.9		40.0	102	48.5		50.0	97				
Dissolved Vanadium	39.7		40.0	99	49.2		50.0	98				
Zinc	40.0		40.0	100	48.4		50.0	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336575/14 07/16/2018 10:20				CCVL 240-336575/78 07/16/2018 15:05							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Antimony	1.97	J	2.00	98	1.97	J	2.00	98				
Dissolved Arsenic	5.07		5.00	101	4.91	J	5.00	98				
Dissolved Barium	4.76	J	5.00	95	4.76	J	5.00	95				
Dissolved Beryllium	0.744	J	1.00	74	0.722	J	1.00	72				
Dissolved Cadmium	0.927	J	1.00	93	0.983	J	1.00	98				
Dissolved Chromium	1.93	J	2.00	96	1.91	J	2.00	95				
Dissolved Cobalt	1.01		1.00	101	0.981	J	1.00	98				
Dissolved Copper	1.96	J	2.00	98	2.06		2.00	103				
Dissolved Iron	110		100	110	109		100	109				
Dissolved Lead	1.02		1.00	102	1.20		1.00	120				
Dissolved Manganese	4.51	J	5.00	90	4.53	J	5.00	91				
Dissolved Molybdenum	5.15		5.00	103	5.00		5.00	100				
Dissolved Nickel	1.91	J	2.00	95	1.69	J	2.00	85				
Dissolved Selenium	5.17		5.00	103	4.87	J	5.00	97				
Dissolved Silver	0.959	J	1.00	96	0.971	J	1.00	97				
Dissolved Thallium	1.03		1.00	103	1.01		1.00	101				
Dissolved Vanadium	4.87	J	5.00	97	4.79	J	5.00	96				
Zinc	18.3	J	20.0	91	17.8	J	20.0	89				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTHgICV_00001_00361 Concentration Units: ug/L

CCV Source: MTHGCALW_01862

Analyte	ICV 240-334525/7-A 07/02/2018 11:08				CCV 240-334525/10-A 07/02/2018 12:17				CCV 240-334525/10-A 07/02/2018 12:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.79		5.00	96	5.05		5.00	101	5.04		5.00	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTHgICV_00001_00361 Concentration Units: ug/L

CCV Source: MTHGCALW_01862

Analyte	CCV 240-334525/10-A 07/02/2018 13:05											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.93		5.00	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTHgICV_00001_00361 Concentration Units: ug/L

CCV Source: MTHGCALW_01862

Analyte	ICV 240-334525/7-A 07/03/2018 07:02				CCV 240-334525/10-A 07/03/2018 15:33				CCV 240-334525/10-A 07/03/2018 15:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.88		5.00	98	5.00		5.00	100	4.94		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTHgICV_00001_00361 Concentration Units: ug/L

CCV Source: MTHGCALW_01862

Analyte	CCV 240-334525/10-A 07/03/2018 16:22				CCV 240-334525/10-A 07/03/2018 16:32				CCV 240-334525/10-A 07/03/2018 17:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.94		5.00	99	5.11		5.00	102	4.90		5.00	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICV Source: MTHgICV_00001_00361 Concentration Units: ug/L

CCV Source: MTHGCALW_01862

Analyte	CCV 240-334525/10-A 07/03/2018 17:35				CCV 240-334525/10-A 07/03/2018 17:59							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.96		5.00	99	4.93		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-334525/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01862

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.186	J	93	50-150
Mercury	0.200	0.186	J	93	50-150

Lab Sample ID: CRA 240-334525/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01862

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.207		104	50-150
Mercury	0.200	0.207		104	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335034/5 07/06/2018 10:23		CCB 240-335034/43 07/06/2018 13:32		CCB 240-335034/56 07/06/2018 15:00		CCB 240-335034/68 07/06/2018 15:55	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	310	U	310	U	310	U	310	U
Magnesium	5000	780	U	780	U	780	U	780	U
Potassium	5000	560	U	560	U	560	U	560	U
SiO2, Silica	1100	180	U	180	U	180	U	180	U
Sodium	5000	560	U	560	U	560	U	560	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-335034/75 07/06/2018 16:28							
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	310	U						
Magnesium	5000	780	U						
Potassium	5000	560	U						
SiO2, Silica	1100	180	U						
Sodium	5000	560	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334578/8 07/02/2018 11:38		CCB 240-334578/20 07/02/2018 12:36		CCB 240-334578/32 07/02/2018 13:30		CCB 240-334578/37 07/02/2018 13:52	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-334578/49 07/02/2018 14:46							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334818/8 07/03/2018 12:54		CCB 240-334818/153 07/04/2018 00:29		CCB 240-334818/165 07/04/2018 01:22		CCB 240-334818/177 07/04/2018 02:16	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	1.11	J	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-334818/182 07/04/2018 02:38							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Beryllium	1.0	0.31	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336230/8 07/13/2018 13:24		CCB 240-336230/156 07/14/2018 01:14		CCB 240-336230/168 07/14/2018 02:07		CCB 240-336230/180 07/14/2018 03:01	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336230/188 07/14/2018 03:36							
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Dissolved Iron	100	47	U						
Dissolved Lead	1.0	0.45	U						
Dissolved Manganese	5.0	2.1	U						
Dissolved Molybdenum	5.0	1.1	U						
Dissolved Nickel	2.0	1.5	U						
Dissolved Selenium	5.0	0.89	U						
Dissolved Silver	1.0	0.053	U						
Dissolved Thallium	1.0	0.20	U						
Dissolved Vanadium	5.0	0.82	U						
Beryllium	1.0	0.31	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336326/8 07/14/2018 10:21		CCB 240-336326/42 07/14/2018 12:53		CCB 240-336326/54 07/14/2018 13:47		CCB 240-336326/66 07/14/2018 14:40	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Zinc	20	15	U	15	U	15	U	15	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336326/71 07/14/2018 15:02							
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U						
Zinc	20	15	U						
Antimony	2.0	0.57	U						
Arsenic	5.0	0.75	U						
Barium	5.0	2.2	U						
Cadmium	1.0	0.21	U						
Chromium	2.0	0.98	U						
Cobalt	1.0	0.19	U						
Copper	2.0	1.7	U						
Iron	100	47	U						
Lead	1.0	0.45	U						
Manganese	5.0	2.1	U						
Molybdenum	5.0	1.1	U						
Nickel	2.0	1.5	U						
Selenium	5.0	0.89	U						
Silver	1.0	0.053	U						
Thallium	1.0	0.20	U						
Vanadium	5.0	0.82	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336575/8 07/16/2018 09:53		CCB 240-336575/68 07/16/2018 14:20		CCB 240-336575/77 07/16/2018 15:00		CCB 240-336575/89 07/16/2018 15:54	
		Found	C	Found	C	Found	C	Found	C
Dissolved Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Dissolved Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Dissolved Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Dissolved Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Dissolved Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Dissolved Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Dissolved Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Dissolved Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334525/8-A 07/02/2018 11:10		CCB 240-334525/11-A 07/02/2018 12:19		CCB 240-334525/11-A 07/02/2018 12:43		CCB 240-334525/11-A 07/02/2018 13:07	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334525/8-A 07/03/2018 07:04		CCB 240-334525/11-A 07/03/2018 15:35		CCB 240-334525/11-A 07/03/2018 16:00		CCB 240-334525/11-A 07/03/2018 16:24	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-334525/11-A 07/03/2018 16:34		CCB 240-334525/11-A 07/03/2018 17:13		CCB 240-334525/11-A 07/03/2018 17:37		CCB 240-334525/11-A 07/03/2018 18:02	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334389/1-A

Instrument Code: I12 Batch No.: 335034

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	310	U		6010C
7440-09-7	Potassium	560	U		6010C
7439-95-4	Magnesium	780	U		6010C
7440-23-5	Sodium	560	U		6010C
14808-60-7	SiO2, Silica	180	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334114/1-A

Instrument Code: I10 Batch No.: 334578

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	3.03			6020A
7440-50-8	Dissolved Copper	3.03			6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334363/1-A

Instrument Code: I10 Batch No.: 334818

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334389/1-A

Instrument Code: I10 Batch No.: 336575

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.399	J		6020A
7440-41-7	Dissolved Beryllium	0.399	J		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.489	J		6020A
7439-92-1	Lead	0.489	J		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334117/1-A

Instrument Code: H3 Batch No.: 334523

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334365/1-A

Instrument Code: H3 Batch No.: 334552

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334390/1-A

Instrument Code: H3 Batch No.: 334552

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-335034/8 Instrument ID: I12

Lab File ID: I12070618A.asc ICS Source: MTTRICSAW_00038

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**479550**	**96**
Magnesium	**500000**	**514230**	**103**
Potassium		**-38.8**	
Sodium		**59.5**	
Aluminum	*500000*	*511900*	*102*
Antimony		*0.110*	
Arsenic		*-1.29*	
Barium		*0.152*	
Beryllium		*0.304*	
Boron		*-1.20*	
Cadmium		*1.14*	
Chromium		*3.27*	
Cobalt		*-5.14*	
Copper		*1.22*	
Iron	*200000*	*194230*	*97*
Lead		*2.50*	
Lithium		*10.8*	
Manganese		*0.761*	
Molybdenum		*-0.824*	
Nickel		*1.96*	
Selenium		*-4.53*	
Silicon		*0.811*	
Silver		*-1.67*	
Strontium		*8.27*	
Thallium		*1.84*	
Tin		*1.84*	
Titanium		*-4.66*	
Vanadium		*-0.410*	
Zinc		*-1.53*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-335034/9 Instrument ID: I12

Lab File ID: I12070618A.asc ICS Source: MTICPICSABW_00018

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**485550**	**97**
Magnesium	**500000**	**517790**	**104**
Potassium	**10000**	**10223**	**102**
Sodium	**10000**	**10419**	**104**
Aluminum	*500000*	*512140*	*102*
Antimony	*1000*	*995*	*100*
Arsenic	*1000*	*969*	*97*
Barium	*500*	*489*	*98*
Beryllium	*500*	*484*	*97*
Boron	*500*	*493*	*99*
Cadmium	*1000*	*1008*	*101*
Chromium	*500*	*492*	*98*
Cobalt	*500*	*486*	*97*
Copper	*500*	*538*	*108*
Iron	*200000*	*196230*	*98*
Lead	*1000*	*858*	*86*
Lithium	*500*	*529*	*106*
Manganese	*500*	*497*	*99*
Molybdenum	*1000*	*933*	*93*
Nickel	*1000*	*970*	*97*
Selenium	*1000*	*965*	*96*
Silicon	*10000*	*9903*	*99*
Silver	*1000*	*1103*	*110*
Strontium	*1500*	*1438*	*96*
Thallium	*1000*	*922*	*92*
Tin	*500*	*510*	*102*
Titanium	*500*	*498*	*100*
Vanadium	*500*	*483*	*97*
Zinc	*1000*	*989*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-334578/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0180**	
Arsenic		**0.129**	
Barium		**0.0600**	
Beryllium		**-0.109**	
Cadmium		**0.0940**	
Chromium		**0.152**	
Cobalt		**-0.0070**	
Copper		**0.359**	
Dissolved Iron	**50000**	**48886**	**98**
Dissolved Lead		**0.0140**	
Dissolved Manganese		**0.0420**	
Dissolved Molybdenum	**1000**	**988**	**99**
Dissolved Nickel		**-0.0240**	
Dissolved Selenium		**0.541**	
Dissolved Silver		**0.0120**	
Dissolved Thallium		**-0.0020**	
Dissolved Vanadium		**-0.175**	
Zinc		**0.291**	
Aluminum	*50000*	*48439*	*97*
Boron		*-0.602*	
Calcium	*50000*	*49398*	*99*
Lithium		*-0.410*	
Magnesium	*50000*	*48943*	*98*
Potassium	*50000*	*49033*	*98*
Sodium	*50000*	*49057*	*98*
Strontium		*0.454*	
Tin		*0.165*	
Titanium	*1000*	*971*	*97*
Tungsten		*0.179*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-334578/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.9**	**100**
Arsenic	**100**	**99.0**	**99**
Barium	**100**	**98.9**	**99**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**97.5**	**97**
Chromium	**100**	**98.3**	**98**
Cobalt	**100**	**99.7**	**100**
Copper	**100**	**101**	**101**
Dissolved Iron	**50000**	**49459**	**99**
Dissolved Lead	**100**	**100**	**100**
Dissolved Manganese	**100**	**101**	**101**
Dissolved Molybdenum	**1100**	**1091**	**99**
Dissolved Nickel	**100**	**100.0**	**100**
Dissolved Selenium	**100**	**101**	**101**
Dissolved Silver	**100**	**98.4**	**98**
Dissolved Thallium	**100**	**97.8**	**98**
Dissolved Vanadium	**100**	**97.6**	**98**
Zinc	**100**	**101**	**101**
Aluminum	*50000*	*48513*	*97*
Boron	*100*	*101*	*101*
Calcium	*50000*	*49636*	*99*
Lithium	*100*	*96.7*	*97*
Magnesium	*50000*	*49356*	*99*
Potassium	*50000*	*49137*	*98*
Sodium	*50000*	*49371*	*99*
Strontium	*100*	*96.7*	*97*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1074*	*98*
Tungsten	*100*	*97.2*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-334818/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**-0.0070**	
Arsenic		**0.0030**	
Barium		**0.0390**	
Beryllium		**-0.0100**	
Cadmium		**0.192**	
Chromium		**0.143**	
Cobalt		**0.0040**	
Copper		**0.374**	
Dissolved Iron	**50000**	**50231**	**100**
Dissolved Lead		**0.0360**	
Dissolved Manganese		**0.164**	
Dissolved Molybdenum	**1000**	**1026**	**103**
Dissolved Nickel		**0.119**	
Dissolved Selenium		**-0.342**	
Dissolved Silver		**0.0120**	
Dissolved Thallium		**-0.0020**	
Dissolved Vanadium		**0.0090**	
Zinc		**0.226**	
Aluminum	*50000*	*48278*	*97*
Boron		*2.64*	
Calcium	*50000*	*50317*	*101*
Lithium		*0.160*	
Magnesium	*50000*	*50319*	*101*
Potassium	*50000*	*49690*	*99*
Sodium	*50000*	*50171*	*100*
Strontium		*0.448*	
Tin		*-0.106*	
Titanium	*1000*	*989*	*99*
Tungsten		*0.170*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-334818/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**105**	**105**
Arsenic	**100**	**103**	**103**
Barium	**100**	**102**	**102**
Beryllium	**100**	**105**	**105**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**101**	**101**
Cobalt	**100**	**102**	**102**
Copper	**100**	**104**	**104**
Dissolved Iron	**50000**	**50442**	**101**
Dissolved Lead	**100**	**107**	**107**
Dissolved Manganese	**100**	**99.1**	**99**
Dissolved Molybdenum	**1100**	**1158**	**105**
Dissolved Nickel	**100**	**102**	**102**
Dissolved Selenium	**100**	**105**	**105**
Dissolved Silver	**100**	**102**	**102**
Dissolved Thallium	**100**	**105**	**105**
Dissolved Vanadium	**100**	**99.9**	**100**
Zinc	**100**	**104**	**104**
Aluminum	*50000*	*49714*	*99*
Boron	*100*	*104*	*104*
Calcium	*50000*	*50443*	*101*
Lithium	*100*	*107*	*107*
Magnesium	*50000*	*50948*	*102*
Potassium	*50000*	*50703*	*101*
Sodium	*50000*	*50580*	*101*
Strontium	*100*	*104*	*104*
Tin	*100*	*104*	*104*
Titanium	*1100*	*1106*	*101*
Tungsten	*100*	*99.2*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-334818/127 Instrument ID: I10

Lab File ID: 127ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0330**	
Arsenic		**0.115**	
Barium		**0.0770**	
Beryllium		**0.0390**	
Cadmium		**0.198**	
Chromium		**0.104**	
Cobalt		**0.0230**	
Copper		**0.281**	
Dissolved Iron	**50000**	**45672**	**91**
Dissolved Lead		**0.0850**	
Dissolved Manganese		**0.191**	
Dissolved Molybdenum	**1000**	**959**	**96**
Dissolved Nickel		**0.0980**	
Dissolved Selenium		**0.594**	
Dissolved Silver		**0.0090**	
Dissolved Thallium		**-0.0010**	
Dissolved Vanadium		**-0.0280**	
Zinc		**-0.0520**	
Aluminum	*50000*	*44414*	*89*
Boron		*18.0*	
Calcium	*50000*	*46677*	*93*
Lithium		*0.200*	
Magnesium	*50000*	*44677*	*89*
Potassium	*50000*	*45636*	*91*
Sodium	*50000*	*43626*	*87*
Strontium		*0.570*	
Tin		*-0.296*	
Titanium	*1000*	*921*	*92*
Tungsten		*0.428*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-334818/128 Instrument ID: I10

Lab File ID: 128ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**99.1**	**99**
Arsenic	**100**	**100**	**100**
Barium	**100**	**103**	**103**
Beryllium	**100**	**102**	**102**
Cadmium	**100**	**94.1**	**94**
Chromium	**100**	**95.7**	**96**
Cobalt	**100**	**97.4**	**97**
Copper	**100**	**97.2**	**97**
Dissolved Iron	**50000**	**48351**	**97**
Dissolved Lead	**100**	**107**	**107**
Dissolved Manganese	**100**	**97.3**	**97**
Dissolved Molybdenum	**1100**	**1095**	**100**
Dissolved Nickel	**100**	**91.6**	**92**
Dissolved Selenium	**100**	**105**	**105**
Dissolved Silver	**100**	**96.3**	**96**
Dissolved Thallium	**100**	**106**	**106**
Dissolved Vanadium	**100**	**95.8**	**96**
Zinc	**100**	**97.1**	**97**
Aluminum	*50000*	*47068*	*94*
Boron	*100*	*115*	*115*
Calcium	*50000*	*48699*	*97*
Lithium	*100*	*108*	*108*
Magnesium	*50000*	*47422*	*95*
Potassium	*50000*	*47864*	*96*
Sodium	*50000*	*46181*	*92*
Strontium	*100*	*102*	*102*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1069*	*97*
Tungsten	*100*	*95.2*	*95*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-336230/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0520**	
Arsenic		**0.0590**	
Barium		**0.0210**	
Cadmium		**0.310**	
Chromium		**0.0800**	
Cobalt		**0.0050**	
Copper		**0.306**	
Dissolved Iron	**50000**	**51139**	**102**
Dissolved Lead		**0.0530**	
Dissolved Manganese		**-0.553**	
Dissolved Molybdenum	**1000**	**1003**	**100**
Dissolved Nickel		**0.0550**	
Dissolved Selenium		**0.300**	
Dissolved Silver		**0.0110**	
Dissolved Thallium		**-0.0010**	
Dissolved Vanadium		**0.0070**	
Aluminum	*50000*	*51658*	*103*
Beryllium		*-0.0020*	
Boron		*-18.8*	
Calcium	*50000*	*48470*	*97*
Lithium		*-1.34*	
Magnesium	*50000*	*48579*	*97*
Potassium	*50000*	*48615*	*97*
Sodium	*50000*	*49676*	*99*
Strontium		*0.387*	
Tin		*-0.347*	
Titanium	*1000*	*1009*	*101*
Tungsten		*-0.0950*	
Zinc		*-4.33*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-336230/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**104**	**104**
Arsenic	**100**	**104**	**104**
Barium	**100**	**102**	**102**
Cadmium	**100**	**100**	**100**
Chromium	**100**	**98.6**	**99**
Cobalt	**100**	**101**	**101**
Copper	**100**	**101**	**101**
Dissolved Iron	**50000**	**51569**	**103**
Dissolved Lead	**100**	**101**	**101**
Dissolved Manganese	**100**	**99.1**	**99**
Dissolved Molybdenum	**1100**	**1109**	**101**
Dissolved Nickel	**100**	**101**	**101**
Dissolved Selenium	**100**	**103**	**103**
Dissolved Silver	**100**	**99.0**	**99**
Dissolved Thallium	**100**	**99.0**	**99**
Dissolved Vanadium	**100**	**101**	**101**
Aluminum	*50000*	*51329*	*103*
Beryllium	*100*	*94.0*	*94*
Boron	*100*	*73.7*	*74*
Calcium	*50000*	*48726*	*97*
Lithium	*100*	*94.5*	*95*
Magnesium	*50000*	*48662*	*97*
Potassium	*50000*	*49479*	*99*
Sodium	*50000*	*50407*	*101*
Strontium	*100*	*98.4*	*98*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1107*	*101*
Tungsten	*100*	*101*	*101*
Zinc	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-336230/148 Instrument ID: I10

Lab File ID: 148ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**-0.0580**	
Arsenic		**0.126**	
Barium		**0.0420**	
Cadmium		**0.269**	
Chromium		**0.0250**	
Cobalt		**0.0070**	
Copper		**0.275**	
Dissolved Iron	**50000**	**44721**	**89**
Dissolved Lead		**0.152**	
Dissolved Manganese		**-0.518**	
Dissolved Molybdenum	**1000**	**955**	**95**
Dissolved Nickel		**0.0720**	
Dissolved Selenium		**0.731**	
Dissolved Silver		**0.0100**	
Dissolved Thallium		**-0.0010**	
Dissolved Vanadium		**0.0350**	
Aluminum	*50000*	*44049*	*88*
Beryllium		*0.0130*	
Calcium	*50000*	*43635*	*87*
Lithium		*-3.38*	
Magnesium	*50000*	*41363*	*83*
Potassium	*50000*	*43629*	*87*
Sodium	*50000*	*42078*	*84*
Strontium		*0.406*	
Tin		*-0.419*	
Titanium	*1000*	*893*	*89*
Tungsten		*-0.195*	
Zinc		*-4.19*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-336230/149 Instrument ID: I10

Lab File ID: 149ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**92.5**	**92**
Arsenic	**100**	**98.2**	**98**
Barium	**100**	**91.3**	**91**
Cadmium	**100**	**90.8**	**91**
Chromium	**100**	**87.7**	**88**
Cobalt	**100**	**92.2**	**92**
Copper	**100**	**89.5**	**90**
Dissolved Iron	**50000**	**45999**	**92**
Dissolved Lead	**100**	**91.3**	**91**
Dissolved Manganese	**100**	**88.9**	**89**
Dissolved Molybdenum	**1100**	**1030**	**94**
Dissolved Nickel	**100**	**90.1**	**90**
Dissolved Selenium	**100**	**96.6**	**97**
Dissolved Silver	**100**	**90.1**	**90**
Dissolved Thallium	**100**	**87.9**	**88**
Dissolved Vanadium	**100**	**91.9**	**92**
Aluminum	*50000*	*45388*	*91*
Beryllium	*100*	*79.0*	*79*
Calcium	*50000*	*44890*	*90*
Lithium	*100*	*75.6*	*76*
Magnesium	*50000*	*42706*	*85*
Potassium	*50000*	*44921*	*90*
Sodium	*50000*	*43211*	*86*
Strontium	*100*	*96.7*	*97*
Tin	*100*	*93.4*	*93*
Titanium	*1100*	*992*	*90*
Tungsten	*100*	*92.8*	*93*
Zinc	*100*	*91.4*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-336326/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0070**	
Zinc		**-2.86**	
Aluminum	*50000*	*50718*	*101*
Antimony		*0.0390*	
Arsenic		*0.130*	
Barium		*0.0190*	
Boron		*-0.582*	
Cadmium		*0.346*	
Calcium	*50000*	*48194*	*96*
Chromium		*0.0940*	
Cobalt		*0.0020*	
Copper		*0.532*	
Iron	*50000*	*50409*	*101*
Lead		*0.0500*	
Lithium		*-1.29*	
Magnesium	*50000*	*48911*	*98*
Manganese		*-0.325*	
Molybdenum	*1000*	*1003*	*100*
Nickel		*0.0630*	
Potassium	*50000*	*50055*	*100*
Selenium		*0.168*	
Silver		*0.0130*	
Sodium	*50000*	*49109*	*98*
Strontium		*0.323*	
Thallium		*0.0040*	
Tin		*-0.112*	
Titanium	*1000*	*1005*	*100*
Tungsten		*0.173*	
Vanadium		*-0.0680*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-336326/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**96.5**	**96**
Zinc	**100**	**102**	**102**
Aluminum	*50000*	*49474*	*99*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*101*	*101*
Barium	*100*	*97.1*	*97*
Boron	*100*	*96.7*	*97*
Cadmium	*100*	*97.6*	*98*
Calcium	*50000*	*48327*	*97*
Chromium	*100*	*101*	*101*
Cobalt	*100*	*104*	*104*
Copper	*100*	*102*	*102*
Iron	*50000*	*50721*	*101*
Lead	*100*	*101*	*101*
Lithium	*100*	*97.0*	*97*
Magnesium	*50000*	*47949*	*96*
Manganese	*100*	*98.2*	*98*
Molybdenum	*1100*	*1095*	*100*
Nickel	*100*	*96.9*	*97*
Potassium	*50000*	*49513*	*99*
Selenium	*100*	*103*	*103*
Silver	*100*	*95.2*	*95*
Sodium	*50000*	*48416*	*97*
Strontium	*100*	*94.5*	*94*
Thallium	*100*	*99.1*	*99*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1090*	*99*
Tungsten	*100*	*99.8*	*100*
Vanadium	*100*	*99.8*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSA 240-336575/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Dissolved Antimony		**0.0420**	
Dissolved Arsenic		**0.0440**	
Dissolved Barium		**0.0130**	
Dissolved Beryllium		**-0.0420**	
Dissolved Cadmium		**0.373**	
Dissolved Chromium		**0.0620**	
Dissolved Cobalt		**-0.0040**	
Dissolved Copper		**0.481**	
Dissolved Iron	**50000**	**48728**	**97**
Dissolved Lead		**0.0380**	
Dissolved Manganese		**-0.255**	
Dissolved Molybdenum	**1000**	**1023**	**102**
Dissolved Nickel		**0.0180**	
Dissolved Selenium		**0.124**	
Dissolved Silver		**0.0140**	
Dissolved Thallium		**0.0010**	
Dissolved Vanadium		**-0.0770**	
Aluminum	*50000*	*50580*	*101*
Boron		*-0.545*	
Calcium	*50000*	*48033*	*96*
Lithium		*-0.731*	
Magnesium	*50000*	*48981*	*98*
Potassium	*50000*	*48292*	*97*
Sodium	*50000*	*48855*	*98*
Strontium		*0.408*	
Tin		*-0.0980*	
Titanium	*1000*	*979*	*98*
Tungsten		*0.159*	
Zinc		*-1.90*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICSAB 240-336575/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Dissolved Antimony	**100**	**102**	**102**
Dissolved Arsenic	**100**	**98.4**	**98**
Dissolved Barium	**100**	**98.8**	**99**
Dissolved Beryllium	**100**	**96.4**	**96**
Dissolved Cadmium	**100**	**98.5**	**98**
Dissolved Chromium	**100**	**95.8**	**96**
Dissolved Cobalt	**100**	**95.6**	**96**
Dissolved Copper	**100**	**96.4**	**96**
Dissolved Iron	**50000**	**47977**	**96**
Dissolved Lead	**100**	**98.4**	**98**
Dissolved Manganese	**100**	**94.2**	**94**
Dissolved Molybdenum	**1100**	**1082**	**98**
Dissolved Nickel	**100**	**95.6**	**96**
Dissolved Selenium	**100**	**98.4**	**98**
Dissolved Silver	**100**	**95.6**	**96**
Dissolved Thallium	**100**	**96.7**	**97**
Dissolved Vanadium	**100**	**97.0**	**97**
Aluminum	*50000*	*50798*	*102*
Boron	*100*	*96.6*	*97*
Calcium	*50000*	*48065*	*96*
Lithium	*100*	*98.4*	*98*
Magnesium	*50000*	*48003*	*96*
Potassium	*50000*	*47671*	*95*
Sodium	*50000*	*48939*	*98*
Strontium	*100*	*96.9*	*97*
Tin	*100*	*99.6*	*100*
Titanium	*1100*	*1073*	*98*
Tungsten	*100*	*97.9*	*98*
Zinc	*100*	*97.1*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-48D-062918 MS
Lab ID: 240-97969-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-97836-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	1.02		0.13	U	1.00	102	80-120		7470A
Mercury, Dissolved	1.02		0.13	U	1.00	102	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-48D-062918 MS
Lab ID: 240-97969-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-97836-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	80400		36000		50000	89	75-125		6010C
Potassium	46400		3700	J	50000	85	75-125		6010C
Magnesium	65000		22000		50000	87	75-125		6010C
Sodium	99000		56000		50000	85	75-125		6010C
SiO2, Silica	11100		8800		2140	108	75-125	4	6010C
Antimony	90.0		0.57	U	100	90	75-125		6020A
Dissolved Antimony	90.0		0.57	U	100	90	75-125		6020A
Arsenic	980		0.75	U	1000	98	75-125		6020A
Dissolved Arsenic	980		0.75	U	1000	98	75-125		6020A
Barium	982		22		1000	96	75-125		6020A
Dissolved Barium	982		22		1000	96	75-125		6020A
Beryllium	1010		1.5		1000	101	75-125	B	6020A
Dissolved Beryllium	1010		1.5		1000	101	75-125	B	6020A
Cadmium	985		36		1000	95	75-125		6020A
Dissolved Cadmium	985		36		1000	95	75-125		6020A
Cobalt	1050		180		1000	87	75-125		6020A
Dissolved Cobalt	1050		180		1000	87	75-125		6020A
Chromium	884		1.3	J	1000	88	75-125		6020A
Dissolved Chromium	884		1.3	J	1000	88	75-125		6020A
Copper	921		20		1000	90	75-125		6020A
Dissolved Copper	921		20		1000	90	75-125		6020A
Dissolved Iron	9060		47	U	10000	91	75-125		6020A
Iron	9060		47	U	10000	91	75-125		6020A
Dissolved Manganese	3830		3100		1000	74	75-125	F1	6020A
Manganese	3830		3100		1000	74	75-125	F1	6020A
Dissolved Molybdenum	92.8		1.1	U	100	93	75-125		6020A
Molybdenum	92.8		1.1	U	100	93	75-125		6020A
Dissolved Nickel	960		77		1000	88	75-125		6020A
Nickel	960		77		1000	88	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-48D-062918 MS
Lab ID: 240-97969-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-97836-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Lead	904		0.45	U	1000	90	75-125		6020A
Lead	904		0.45	U	1000	90	75-125		6020A
Dissolved Selenium	919		9.0		1000	91	75-125		6020A
Selenium	919		9.0		1000	91	75-125		6020A
Dissolved Thallium	222		0.20	U	250	89	75-125		6020A
Thallium	222		0.20	U	250	89	75-125		6020A
Dissolved Vanadium	931		0.82	U	1000	93	75-125		6020A
Dissolved Zinc	1380		220		1000	117	75-125		6020A
Vanadium	931		0.82	U	1000	93	75-125		6020A
Zinc	1380		220		1000	117	75-125		6020A
Dissolved Silver	83.3		0.073	J	100	83	75-125		6020A
Silver	83.3		0.073	J	100	83	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-48D-062918 MSD Lab ID: 240-97969-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.931		1.00	93	80-120	9	20		7470A
Mercury, Dissolved	0.931		1.00	93	80-120	9	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-48D-062918 MSD Lab ID: 240-97969-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	81300		50000	91	75-125	1	20		6010C
Potassium	47000		50000	86	75-125	1	20		6010C
Magnesium	65900		50000	89	75-125	1	20		6010C
Sodium	100000		50000	87	75-125	1	20		6010C
SiO2, Silica	11300		2140	119	75-125	2	20	4	6010C
Antimony	92.5		100	92	75-125	3	20		6020A
Dissolved Antimony	92.5		100	92	75-125	3	20		6020A
Arsenic	1030		1000	103	75-125	5	20		6020A
Dissolved Arsenic	1030		1000	103	75-125	5	20		6020A
Barium	1030		1000	101	75-125	5	20		6020A
Dissolved Barium	1030		1000	101	75-125	5	20		6020A
Beryllium	1010		1000	101	75-125	0	20	B	6020A
Dissolved Beryllium	1010		1000	101	75-125	0	20	B	6020A
Cadmium	1010		1000	98	75-125	3	20		6020A
Dissolved Cadmium	1010		1000	98	75-125	3	20		6020A
Cobalt	1080		1000	90	75-125	3	20		6020A
Dissolved Cobalt	1080		1000	90	75-125	3	20		6020A
Chromium	907		1000	91	75-125	3	20		6020A
Dissolved Chromium	907		1000	91	75-125	3	20		6020A
Copper	939		1000	92	75-125	2	20		6020A
Dissolved Copper	939		1000	92	75-125	2	20		6020A
Dissolved Iron	9270		10000	93	75-125	2	20		6020A
Iron	9270		10000	93	75-125	2	20		6020A
Dissolved Manganese	3810		1000	72	75-125	1	20	F1	6020A
Manganese	3810		1000	72	75-125	1	20	F1	6020A
Dissolved Molybdenum	96.1		100	96	75-125	3	20		6020A
Molybdenum	96.1		100	96	75-125	3	20		6020A
Dissolved Nickel	998		1000	92	75-125	4	20		6020A
Nickel	998		1000	92	75-125	4	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-48D-062918 MSD | Lab ID: 240-97969-2 MSD

Lab Name: TestAmerica Canton | Job No.: 240-97836-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Lead	960		1000	96	75-125	6	20		6020A
Lead	960		1000	96	75-125	6	20		6020A
Dissolved Selenium	953		1000	94	75-125	4	20		6020A
Selenium	953		1000	94	75-125	4	20		6020A
Dissolved Thallium	233		250	93	75-125	5	20		6020A
Thallium	233		250	93	75-125	5	20		6020A
Dissolved Vanadium	944		1000	94	75-125	1	20		6020A
Dissolved Zinc	1400		1000	118	75-125	1	20		6020A
Vanadium	944		1000	94	75-125	1	20		6020A
Zinc	1400		1000	118	75-125	1	20		6020A
Dissolved Silver	87.3		100	87	75-125	5	20		6020A
Silver	87.3		100	87	75-125	5	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334389/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICP2A_00083

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	47200		94	80	120		6010C
Potassium	50000	47800		96	80	120		6010C
Magnesium	50000	47500		95	80	120		6010C
Sodium	50000	44000		88	80	120		6010C
SiO2, Silica	2140	2240		105	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334114/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.8		100	80	120		6020A
Dissolved Antimony	100	99.8		100	80	120		6020A
Arsenic	1000	1020		102	80	120		6020A
Dissolved Arsenic	1000	1020		102	80	120		6020A
Barium	1000	981		98	80	120		6020A
Dissolved Barium	1000	981		98	80	120		6020A
Beryllium	1000	988		99	80	120		6020A
Dissolved Beryllium	1000	988		99	80	120		6020A
Cadmium	1000	1020		102	80	120		6020A
Dissolved Cadmium	1000	1020		102	80	120		6020A
Cobalt	1000	1100		110	80	120		6020A
Dissolved Cobalt	1000	1100		110	80	120		6020A
Chromium	1000	1050		105	80	120		6020A
Dissolved Chromium	1000	1050		105	80	120		6020A
Copper	1000	1100		110	80	120		6020A
Dissolved Copper	1000	1100		110	80	120		6020A
Dissolved Iron	10000	10300		103	80	120		6020A
Iron	10000	10300		103	80	120		6020A
Dissolved Manganese	1000	1070		107	80	120		6020A
Manganese	1000	1070		107	80	120		6020A
Dissolved Molybdenum	100	101		101	80	120		6020A
Molybdenum	100	101		101	80	120		6020A
Dissolved Nickel	1000	1050		105	80	120		6020A
Nickel	1000	1050		105	80	120		6020A
Dissolved Lead	1000	1130		113	80	120		6020A
Lead	1000	1130		113	80	120		6020A
Dissolved Selenium	1000	1030		103	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Dissolved Thallium	250	267		107	80	120		6020A
Thallium	250	267		107	80	120		6020A
Dissolved Vanadium	1000	1030		103	80	120		6020A
Dissolved Zinc	1000	1080		108	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	1080		108	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334114/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	97.3		97	80	120		6020A
Silver	100	97.3		97	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334363/3-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	97.6		98	80	120		6020A
Dissolved Antimony	100	97.6		98	80	120		6020A
Arsenic	1000	1010		101	80	120		6020A
Dissolved Arsenic	1000	1010		101	80	120		6020A
Barium	1000	1020		102	80	120		6020A
Dissolved Barium	1000	1020		102	80	120		6020A
Beryllium	1000	985		99	80	120		6020A
Dissolved Beryllium	1000	985		99	80	120		6020A
Cadmium	1000	972		97	80	120		6020A
Dissolved Cadmium	1000	972		97	80	120		6020A
Cobalt	1000	1030		103	80	120		6020A
Dissolved Cobalt	1000	1030		103	80	120		6020A
Chromium	1000	999		100	80	120		6020A
Dissolved Chromium	1000	999		100	80	120		6020A
Copper	1000	1080		108	80	120		6020A
Dissolved Copper	1000	1080		108	80	120		6020A
Dissolved Iron	10000	9850		98	80	120		6020A
Iron	10000	9850		98	80	120		6020A
Dissolved Manganese	1000	993		99	80	120		6020A
Manganese	1000	993		99	80	120		6020A
Dissolved Molybdenum	100	94.3		94	80	120		6020A
Molybdenum	100	94.3		94	80	120		6020A
Dissolved Nickel	1000	937		94	80	120		6020A
Nickel	1000	937		94	80	120		6020A
Dissolved Lead	1000	1070		107	80	120		6020A
Lead	1000	1070		107	80	120		6020A
Dissolved Selenium	1000	1050		105	80	120		6020A
Selenium	1000	1050		105	80	120		6020A
Dissolved Thallium	250	272		109	80	120		6020A
Thallium	250	272		109	80	120		6020A
Dissolved Vanadium	1000	983		98	80	120		6020A
Dissolved Zinc	1000	1020		102	80	120		6020A
Vanadium	1000	983		98	80	120		6020A
Zinc	1000	1020		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334363/3-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	91.3		91	80	120		6020A
Silver	100	91.3		91	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334389/3-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	88.1		88	80	120		6020A
Dissolved Antimony	100	88.1		88	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Dissolved Arsenic	1000	1040		104	80	120		6020A
Barium	1000	919		92	80	120		6020A
Dissolved Barium	1000	919		92	80	120		6020A
Cadmium	1000	972		97	80	120		6020A
Dissolved Cadmium	1000	972		97	80	120		6020A
Cobalt	1000	932		93	80	120		6020A
Dissolved Cobalt	1000	932		93	80	120		6020A
Chromium	1000	932		93	80	120		6020A
Dissolved Chromium	1000	932		93	80	120		6020A
Copper	1000	976		98	80	120		6020A
Dissolved Copper	1000	976		98	80	120		6020A
Dissolved Iron	10000	9440		94	80	120		6020A
Iron	10000	9440		94	80	120		6020A
Dissolved Manganese	1000	944		94	80	120		6020A
Manganese	1000	944		94	80	120		6020A
Dissolved Molybdenum	100	91.8		92	80	120		6020A
Molybdenum	100	91.8		92	80	120		6020A
Dissolved Nickel	1000	978		98	80	120		6020A
Nickel	1000	978		98	80	120		6020A
Dissolved Lead	1000	943		94	80	120		6020A
Lead	1000	943		94	80	120		6020A
Dissolved Selenium	1000	987		99	80	120		6020A
Selenium	1000	987		99	80	120		6020A
Dissolved Thallium	250	222		89	80	120		6020A
Thallium	250	222		89	80	120		6020A
Dissolved Vanadium	1000	947		95	80	120		6020A
Vanadium	1000	947		95	80	120		6020A
Dissolved Silver	100	86.5		87	80	120		6020A
Silver	100	86.5		87	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334389/3-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTICPMSA_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	971		97	80	120	B	6020A
Dissolved Beryllium	1000	971		97	80	120	B	6020A
Dissolved Zinc	1000	1180		118	80	120		6020A
Zinc	1000	1180		118	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-334117/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTHGCALW_01861

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.99		100	80	120		7470A
Mercury, Dissolved	5.00	4.99		100	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-334365/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTHGCALW_01862

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.93		99	80	120		7470A
Mercury, Dissolved	5.00	4.93		99	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-334390/2-A

Lab Name: TestAmerica Canton Job No.: 240-97836-1

Sample Matrix: Water LCS Source: MTHGCALW_01862

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	5.08		102	80	120		7470A
Mercury, Dissolved	5.00	5.08		102	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-97969-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-97836-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	36000		40100		12	V	6010C
Potassium	3700	J	4030	J	NC		6010C
Magnesium	22000		24300	J	NC		6010C
Sodium	56000		62800		11	V	6010C
SiO2, Silica	8800		9770		NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-97969-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-97836-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	22		22.3	J	NC		6020A
Barium	22		22.3	J	NC		6020A
Beryllium	1.5		1.68	J	NC		6020A
Beryllium	1.5		1.68	J	NC		6020A
Cadmium	36		35.6		NC		6020A
Cadmium	36		35.6		NC		6020A
Cobalt	180		180		0.03		6020A
Cobalt	180		180		0.03		6020A
Chromium	1.3	J	4.9	U	NC		6020A
Chromium	1.3	J	4.9	U	NC		6020A
Copper	20		20.2		NC		6020A
Copper	20		20.2		NC		6020A
Dissolved Iron	47	U	240	U	NC		6020A
Dissolved Iron	47	U	240	U	NC		6020A
Dissolved Manganese	3100		3210		3.6		6020A
Dissolved Manganese	3100		3210		3.6		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	77		80.6		NC		6020A
Dissolved Nickel	77		80.6		NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Selenium	9.0		11.8	J	NC		6020A
Dissolved Selenium	9.0		11.8	J	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	0.82	U	4.1	U	NC		6020A
Dissolved Vanadium	0.82	U	4.1	U	NC		6020A
Zinc	220		218		NC		6020A
Zinc	220		218		NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-97969-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-97836-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.073	J	0.27	U	NC		6020A
Dissolved Silver	0.073	J	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 12/15/2017 12:49

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	307
Magnesium	279.078	5000	776.427
Potassium	766.491	5000	556.95
SiO2, Silica	251.6	1070	180.364
Sodium	330.232	5000	559.94

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 12/15/2017 12:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	307
Magnesium	279.078	5000	776.427
Potassium	766.491	5000	556.95
SiO2, Silica	251.6	1070	180.364
Sodium	330.232	5000	559.94

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 06/26/2018

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.034040				0.056989	
Antimony		-0.00006			-0.000422			-0.000035						0.002232	
Arsenic		0.000009			-0.000202	0.00931			-0.0003555	0.002275					
Beryllium														0.000235	
Cadmium			0.012308					0.000004							
Chromium									0.000415						
Cobalt													0.002128		
Copper				0.000018	0.000361			-0.000032					-0.003157		
Lead		-0.000091					0.000101	0.000048			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000032							0.000338						
Thallium		0.000034			0.003802			-0.000025	-0.000449					0.001371	
Vanadium								0.000064							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-97836-1

SDG No.:

Instrument ID: I12 Date: 06/27/2018 09:21

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-97836-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334389/1-A	07/02/2018 14:00	334389		50	50
LCS 240-334389/2-A	07/02/2018 14:00	334389		50	50
240-97969-2	07/02/2018 14:00	334389		50	50
240-97969-2 MS	07/02/2018 14:00	334389		50	50
240-97969-2 MSD	07/02/2018 14:00	334389		50	50
240-97969-3	07/02/2018 14:00	334389		50	50
240-97969-4	07/02/2018 14:00	334389		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334114/1-A	06/29/2018 14:00	334114		50	50
LCS 240-334114/2-A	06/29/2018 14:00	334114		50	50
240-97836-2	06/29/2018 14:00	334114		50	50
240-97836-2	06/29/2018 14:00	334114		50	50
240-97836-3	06/29/2018 14:00	334114		50	50
240-97836-3	06/29/2018 14:00	334114		50	50
240-97836-4	06/29/2018 14:00	334114		50	50
240-97836-4	06/29/2018 14:00	334114		50	50
240-97836-5	06/29/2018 14:00	334114		50	50
240-97836-5	06/29/2018 14:00	334114		50	50
240-97836-6	06/29/2018 14:00	334114		50	50
240-97836-6	06/29/2018 14:00	334114		50	50
240-97836-7	06/29/2018 14:00	334114		50	50
240-97836-7	06/29/2018 14:00	334114		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334363/1-A	07/02/2018 14:00	334363		50	50
LCS 240-334363/3-A	07/02/2018 14:00	334363		50	50
240-97912-2	07/02/2018 14:00	334363		50	50
240-97912-2	07/02/2018 14:00	334363		50	50
240-97912-3	07/02/2018 14:00	334363		50	50
240-97912-3	07/02/2018 14:00	334363		50	50
240-97912-4	07/02/2018 14:00	334363		50	50
240-97912-4	07/02/2018 14:00	334363		50	50
240-97912-5	07/02/2018 14:00	334363		50	50
240-97912-5	07/02/2018 14:00	334363		50	50
240-97912-6	07/02/2018 14:00	334363		50	50
240-97912-6	07/02/2018 14:00	334363		50	50
240-97912-7	07/02/2018 14:00	334363		50	50
240-97912-7	07/02/2018 14:00	334363		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334389/1-A	07/02/2018 14:00	334389		50	50
LCS 240-334389/3-A	07/02/2018 14:00	334389		50	50
240-97969-2	07/02/2018 14:00	334389		50	50
240-97969-2 MS	07/02/2018 14:00	334389		50	50
240-97969-2 MSD	07/02/2018 14:00	334389		50	50
240-97969-2	07/02/2018 14:00	334389		50	50
240-97969-3	07/02/2018 14:00	334389		50	50
240-97969-3	07/02/2018 14:00	334389		50	50
240-97969-4	07/02/2018 14:00	334389		50	50
240-97969-4	07/02/2018 14:00	334389		50	50
240-97969-5	07/02/2018 14:00	334389		50	50
240-97969-5	07/02/2018 14:00	334389		50	50
240-97969-6	07/02/2018 14:00	334389		50	50
240-97969-6	07/02/2018 14:00	334389		50	50
240-97969-7	07/02/2018 14:00	334389		50	50
240-97969-7	07/02/2018 14:00	334389		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334117/1-A	06/29/2018 14:00	334117		50	50
LCS 240-334117/2-A	06/29/2018 14:00	334117		50	50
240-97836-2	06/29/2018 14:00	334117		50	50
240-97836-2	06/29/2018 14:00	334117		50	50
240-97836-3	06/29/2018 14:00	334117		50	50
240-97836-3	06/29/2018 14:00	334117		50	50
240-97836-4	06/29/2018 14:00	334117		50	50
240-97836-4	06/29/2018 14:00	334117		50	50
240-97836-5	06/29/2018 14:00	334117		50	50
240-97836-5	06/29/2018 14:00	334117		50	50
240-97836-6	06/29/2018 14:00	334117		50	50
240-97836-6	06/29/2018 14:00	334117		50	50
240-97836-7	06/29/2018 14:00	334117		50	50
240-97836-7	06/29/2018 14:00	334117		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334365/1-A	07/02/2018 14:00	334365		50	50
LCS 240-334365/2-A	07/02/2018 14:00	334365		50	50
240-97912-2	07/02/2018 14:00	334365		50	50
240-97912-2	07/02/2018 14:00	334365		50	50
240-97912-3	07/02/2018 14:00	334365		50	50
240-97912-3	07/02/2018 14:00	334365		50	50
240-97912-4	07/02/2018 14:00	334365		50	50
240-97912-4	07/02/2018 14:00	334365		50	50
240-97912-5	07/02/2018 14:00	334365		50	50
240-97912-5	07/02/2018 14:00	334365		50	50
240-97912-6	07/02/2018 14:00	334365		50	50
240-97912-6	07/02/2018 14:00	334365		50	50
240-97912-7	07/02/2018 14:00	334365		50	50
240-97912-7	07/02/2018 14:00	334365		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334390/1-A	07/02/2018 14:00	334390		50	50
LCS 240-334390/2-A	07/02/2018 14:00	334390		50	50
240-97969-2	07/02/2018 14:00	334390		50	50
240-97969-2 MS	07/02/2018 14:00	334390		50	50
240-97969-2 MSD	07/02/2018 14:00	334390		50	50
240-97969-2	07/02/2018 14:00	334390		50	50
240-97969-3	07/02/2018 14:00	334390		50	50
240-97969-3	07/02/2018 14:00	334390		50	50
240-97969-4	07/02/2018 14:00	334390		50	50
240-97969-4	07/02/2018 14:00	334390		50	50
240-97969-5	07/02/2018 14:00	334390		50	50
240-97969-5	07/02/2018 14:00	334390		50	50
240-97969-6	07/02/2018 14:00	334390		50	50
240-97969-6	07/02/2018 14:00	334390		50	50
240-97969-7	07/02/2018 14:00	334390		50	50
240-97969-7	07/02/2018 14:00	334390		50	50

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ICIS 240-335034/1	1		10:05	X	X	X	X	X																						
CALSTD 240-335034/2 IC			10:10	X	X	X	X	X																						
CALSTD 240-335034/3 IC			10:14	X	X	X	X	X																						
ICV 240-335034/4	1		10:19	X	X	X	X	X																						
ICB 240-335034/5	1		10:23	X	X	X	X	X																						
ICVL 240-335034/6	1		10:28	X	X	X	X	X																						
ZZZZZZ			10:33																											
ICSA 240-335034/8	1		10:38	X	X	X	X																							
ICSAB 240-335034/9	1		10:42	X	X	X	X																							
CCV 240-335034/10			10:47																											
CCB 240-335034/11			10:51																											
ZZZZZZ			10:56																											
ZZZZZZ			11:01																											
ZZZZZZ			11:06																											
ZZZZZZ			11:10																											
ZZZZZZ			11:15																											
ZZZZZZ			11:20																											
CCV 240-335034/18			11:25																											
CCB 240-335034/19			11:29																											
ZZZZZZ			11:38																											
ZZZZZZ			11:43																											
ZZZZZZ			11:47																											
ZZZZZZ			11:52																											
ZZZZZZ			11:57																											
ZZZZZZ			12:01																											
ZZZZZZ			12:05																											
ZZZZZZ			12:10																											
ZZZZZZ			12:14																											
ZZZZZZ			12:19																											
CCV 240-335034/30			12:24																											
CCB 240-335034/31			12:28																											
ZZZZZZ			12:33																											
ZZZZZZ			12:38																											
ZZZZZZ			12:42																											
ZZZZZZ			12:55																											
ZZZZZZ			13:00																											
ZZZZZZ			13:05																											
ZZZZZZ			13:09																											
ZZZZZZ			13:14																											
ZZZZZZ			13:18																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			13:23																											
CCV 240-335034/42	1		13:28	X	X	X	X	X																						
CCB 240-335034/43	1		13:32	X	X	X	X	X																						
CCVL 240-335034/44			13:37																											
ZZZZZZ			14:09																											
ZZZZZZ			14:14																											
ZZZZZZ			14:18																											
ZZZZZZ			14:23																											
ZZZZZZ			14:28																											
ZZZZZZ			14:33																											
ZZZZZZ			14:37																											
ZZZZZZ			14:42																											
MB 240-334389/1-A	1	R	14:46	X	X	X	X	X																						
LCS 240-334389/2-A	1	R	14:51	X	X	X	X	X																						
CCV 240-335034/55	1		14:55	X	X	X	X	X																						
CCB 240-335034/56	1		15:00	X	X	X	X	X																						
240-97969-2	1	R	15:05	X	X	X	X	X																						
240-97969-2 SD	5	R	15:09	X	X	X	X	X																						
ZZZZZZ			15:14																											
240-97969-2 MS	1	R	15:18	X	X	X	X	X																						
240-97969-2 MSD	1	R	15:23	X	X	X	X	X																						
ZZZZZZ			15:27																											
ZZZZZZ			15:32																											
ZZZZZZ			15:37																											
ZZZZZZ			15:42																											
ZZZZZZ			15:46																											
CCV 240-335034/67	1		15:51	X	X	X	X	X																						
CCB 240-335034/68	1		15:55	X	X	X	X	X																						
240-97969-3	1	R	16:00	X	X	X	X	X																						
240-97969-4	1	R	16:05	X	X	X	X	X																						
ZZZZZZ			16:10																											
ZZZZZZ			16:14																											
ZZZZZZ			16:19																											
CCV 240-335034/74	1		16:24	X	X	X	X	X																						
CCB 240-335034/75	1		16:28	X	X	X	X	X																						
CCVL 240-335034/76	1		16:33	X	X	X	X	X																						
ZZZZZZ			16:38																											
ZZZZZZ			16:43																											
CCV 240-335034/79			16:47																											
CCB 240-335034/80			16:51																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ZZZZZZ			16:56																										
ZZZZZZ			17:01																										
ZZZZZZ			17:06																										
ZZZZZZ			17:10																										
ZZZZZZ			17:14																										
ZZZZZZ			17:19																										
ZZZZZZ			17:24																										
ZZZZZZ			17:29																										
ZZZZZZ			17:33																										
ZZZZZZ			17:38																										
CCV 240-335034/91			17:43																										
CCB 240-335034/92			17:47																										
ZZZZZZ			17:52																										
ZZZZZZ			17:57																										
CCV 240-335034/95			18:02																										
CCB 240-335034/96			18:06																										
CCVL 240-335034/97			18:11																										
ZZZZZZ			18:16																										
ZZZZZZ			18:21																										
ZZZZZZ			18:25																										
ZZZZZZ			18:30																										
ZZZZZZ			18:35																										
CCV 240-335034/103			18:39																										
CCB 240-335034/104			18:44																										
ZZZZZZ			18:48																										
ZZZZZZ			18:53																										
ZZZZZZ			18:57																										
ZZZZZZ			19:02																										
ZZZZZZ			19:07																										
ZZZZZZ			19:11																										
ZZZZZZ			19:16																										
ZZZZZZ			19:21																										
ZZZZZZ			19:26																										
ZZZZZZ			19:30																										
CCV 240-335034/115			19:35																										
CCB 240-335034/116			19:40																										
ZZZZZZ			19:45																										
ZZZZZZ			19:49																										
ZZZZZZ			19:54																										
ZZZZZZ			19:59																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			20:04																											
ZZZZZZ			20:08																											
ZZZZZZ			20:13																											
CCV 240-335034/124			20:18																											
CCB 240-335034/125			20:22																											
ZZZZZZ			20:27																											
CCV 240-335034/127			20:32																											
CCB 240-335034/128			20:36																											
ZZZZZZ			20:41																											
ZZZZZZ			20:46																											
ZZZZZZ			20:50																											
ZZZZZZ			20:55																											
ZZZZZZ			21:00																											
ZZZZZZ			21:05																											
ZZZZZZ			21:10																											
ZZZZZZ			21:14																											
ZZZZZZ			21:19																											
ZZZZZZ			21:24																											
CCV 240-335034/139			21:29																											
CCB 240-335034/140			21:33																											
ZZZZZZ			21:38																											
ZZZZZZ			21:43																											
ZZZZZZ			21:47																											
ZZZZZZ			21:52																											
ZZZZZZ			21:57																											
ZZZZZZ			22:02																											
ZZZZZZ			22:07																											
CCV 240-335034/148			22:12																											
CCB 240-335034/149			22:16																											
ZZZZZZ			22:21																											
CCV 240-335034/151			22:26																											
CCB 240-335034/152			22:30																											
ZZZZZZ			22:35																											
ZZZZZZ			22:40																											
ZZZZZZ			22:44																											
ZZZZZZ			22:49																											
ZZZZZZ			22:54																											
ZZZZZZ			22:58																											
ZZZZZZ			23:03																											
ZZZZZZ			23:08																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			23:13																											
ZZZZZZ			23:18																											
CCV 240-335034/163			23:23																											
CCB 240-335034/164			23:27																											
ZZZZZZ			23:32																											
ZZZZZZ			23:36																											
ZZZZZZ			23:41																											
ZZZZZZ			23:46																											
ZZZZZZ			23:50																											
ZZZZZZ			23:54																											
ZZZZZZ			23:59																											
ZZZZZZ			00:04																											
ZZZZZZ			00:08																											
ZZZZZZ			00:13																											
CCV 240-335034/175			00:18																											
CCB 240-335034/176			00:22																											
ZZZZZZ			00:27																											
ZZZZZZ			00:32																											
ZZZZZZ			00:37																											
ZZZZZZ			00:42																											
ZZZZZZ			00:46																											
ZZZZZZ			00:51																											
ZZZZZZ			00:55																											
ZZZZZZ			01:00																											
ZZZZZZ			01:05																											
ZZZZZZ			01:09																											
CCV 240-335034/187			01:14																											
CCB 240-335034/188			01:19																											
ZZZZZZ			01:23																											
ZZZZZZ			01:28																											
ZZZZZZ			01:33																											
ZZZZZZ			01:38																											
ZZZZZZ			01:43																											
ZZZZZZ			01:48																											
ZZZZZZ			01:53																											
ZZZZZZ			01:57																											
ZZZZZZ			02:02																											
ZZZZZZ			02:07																											
CCV 240-335034/199			02:12																											
CCB 240-335034/200			02:16																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/06/2018 10:05 End Date: 07/07/2018 05:13

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			02:21																											
ZZZZZZ			02:26																											
ZZZZZZ			02:30																											
ZZZZZZ			02:35																											
ZZZZZZ			02:39																											
ZZZZZZ			02:44																											
ZZZZZZ			02:48																											
ZZZZZZ			02:52																											
ZZZZZZ			02:57																											
ZZZZZZ			03:02																											
CCV 240-335034/211			03:07																											
CCB 240-335034/212			03:11																											
ZZZZZZ			03:16																											
ZZZZZZ			03:20																											
ZZZZZZ			03:25																											
ZZZZZZ			03:29																											
ZZZZZZ			03:34																											
ZZZZZZ			03:39																											
ZZZZZZ			03:44																											
ZZZZZZ			03:48																											
ZZZZZZ			03:53																											
ZZZZZZ			03:57																											
CCV 240-335034/223			04:02																											
CCB 240-335034/224			04:06																											
ZZZZZZ			04:11																											
ZZZZZZ			04:16																											
ZZZZZZ			04:21																											
ZZZZZZ			04:26																											
ZZZZZZ			04:31																											
ZZZZZZ			04:36																											
ZZZZZZ			04:40																											
ZZZZZZ			04:45																											
ZZZZZZ			04:50																											
ZZZZZZ			04:54																											
CCV 240-335034/235			04:59																											
CCB 240-335034/236			05:04																											
CCV 240-335034/237			05:08																											
CCB 240-335034/238			05:13																											

Prep Types:
R = Total Recoverable

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			11:07																									
ICIS 240-334578/2			11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-334578/3 IC	1		11:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-334578/4 IC	1		11:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-334578/5 IC	1		11:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-334578/6 IC	1		11:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-334578/7	1		11:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-334578/8	1		11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-334578/9	1		11:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-334578/10	1		11:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-334578/11	1		11:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-334578/12			11:56																									
CCB 240-334578/13			12:01																									
ZZZZZZ			12:09																									
ZZZZZZ			12:13																									
ZZZZZZ			12:18																									
ZZZZZZ			12:22																									
ZZZZZZ			12:27																									
CCV 240-334578/19	1		12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334578/20	1		12:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MB 240-334114/1-A	1	R	12:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-334114/2-A	1	R	12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			12:49																									
ZZZZZZ			12:54																									
ZZZZZZ			12:58																									
ZZZZZZ			13:03																									
ZZZZZZ			13:07																									
ZZZZZZ			13:12																									
240-97836-2	1	R	13:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-2	1	D	13:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-334578/31	1		13:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334578/32	1		13:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			13:34																									
ZZZZZZ			13:39																									
ZZZZZZ			13:43																									
CCV 240-334578/36	1		13:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334578/37	1		13:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-3	1	R	13:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-3	1	D	14:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-4	1	R	14:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-4	1	D	14:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-5	1	R	14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
240-97836-5	1	D	14:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-6	1	R	14:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-6	1	D	14:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-7	1	R	14:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-97836-7	1	D	14:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-334578/48	1		14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-334578/49	1		14:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			14:51																									
ZZZZZZ			14:55																									
ZZZZZZ			15:00																									
ZZZZZZ			15:04																									
ZZZZZZ			15:09																									
CCV 240-334578/55			15:13																									
CCB 240-334578/56			15:18																									
CCVL 240-334578/57			15:22																									
ZZZZZZ			15:27																									
ZZZZZZ			15:31																									
ZZZZZZ			15:36																									
ZZZZZZ			15:40																									
ZZZZZZ			15:45																									
ZZZZZZ			15:49																									
ZZZZZZ			15:54																									
ZZZZZZ			15:58																									
ZZZZZZ			16:03																									
CCV 240-334578/67			16:07																									
CCB 240-334578/68			16:12																									
ZZZZZZ			16:17																									
ZZZZZZ			16:21																									
ZZZZZZ			16:26																									
ZZZZZZ			16:30																									
ZZZZZZ			16:35																									
ZZZZZZ			16:39																									
ZZZZZZ			16:44																									
ZZZZZZ			16:48																									
ZZZZZZ			16:53																									
ZZZZZZ			16:57																									
CCV 240-334578/79			17:02																									
CCB 240-334578/80			17:06																									
ZZZZZZ			17:11																									
ZZZZZZ			17:15																									
ZZZZZZ			17:20																									
ZZZZZZ			17:24																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-334578/85			17:29																										
CCB 240-334578/86			17:33																										
CCVL 240-334578/87	1		17:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			17:42																										
ZZZZZZ			17:47																										
ZZZZZZ			17:51																										
CCV 240-334578/91			17:56																										
CCB 240-334578/92			18:00																										
ZZZZZZ			18:05																										
ZZZZZZ			18:09																										
ZZZZZZ			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:23																										
ZZZZZZ			18:27																										
ZZZZZZ			18:32																										
ZZZZZZ			18:36																										
ZZZZZZ			18:41																										
ZZZZZZ			18:45																										
CCV 240-334578/103			18:50																										
CCB 240-334578/104			18:54																										
ZZZZZZ			18:59																										
ZZZZZZ			19:03																										
ZZZZZZ			19:08																										
ZZZZZZ			19:12																										
ZZZZZZ			19:17																										
ZZZZZZ			19:22																										
ZZZZZZ			19:26																										
ZZZZZZ			19:31																										
ZZZZZZ			19:35																										
ZZZZZZ			19:40																										
CCV 240-334578/115			19:44																										
CCB 240-334578/116			19:49																										
ZZZZZZ			19:53																										
ZZZZZZ			19:58																										
ZZZZZZ			20:02																										
ZZZZZZ			20:07																										
ZZZZZZ			20:12																										
ZZZZZZ			20:16																										
ZZZZZZ			20:20																										
CCV 240-334578/124			20:25																										
CCB 240-334578/125			20:29																										
ZZZZZZ			20:34																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			20:39																										
ZZZZZZ			20:43																										
ZZZZZZ			20:48																										
ZZZZZZ			20:52																										
ZZZZZZ			20:56																										
ZZZZZZ			21:01																										
ZZZZZZ			21:05																										
ZZZZZZ			21:10																										
ZZZZZZ			21:14																										
CCV 240-334578/136			21:19																										
CCB 240-334578/137			21:23																										
ZZZZZZ			21:28																										
CCV 240-334578/139			21:33																										
CCB 240-334578/140			21:37																										
ZZZZZZ			21:42																										
ZZZZZZ			21:46																										
ZZZZZZ			21:51																										
ZZZZZZ			21:55																										
ICSA 240-334578/145			22:00																										
ICSAB 240-334578/146			22:05																										
ZZZZZZ			22:09																										
ZZZZZZ			22:13																										
ZZZZZZ			22:18																										
ZZZZZZ			22:22																										
ZZZZZZ			22:27																										
ZZZZZZ			22:32																										
CCV 240-334578/153			22:36																										
CCB 240-334578/154			22:41																										
ZZZZZZ			22:45																										
ZZZZZZ			22:50																										
ZZZZZZ			22:54																										
ZZZZZZ			22:59																										
ZZZZZZ			23:03																										
ZZZZZZ			23:08																										
ZZZZZZ			23:12																										
ZZZZZZ			23:17																										
ZZZZZZ			23:21																										
ZZZZZZ			23:26																										
CCV 240-334578/165			23:30																										
CCB 240-334578/166			23:35																										
ZZZZZZ			23:39																										
ZZZZZZ			23:44																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			23:48																											
CCV 240-334578/170			23:53																											
CCB 240-334578/171			23:57																											
ZZZZZZ			00:02																											
ZZZZZZ			00:06																											
ZZZZZZ			00:11																											
ZZZZZZ			00:15																											
ZZZZZZ			00:20																											
ZZZZZZ			00:24																											
ZZZZZZ			00:29																											
ZZZZZZ			00:33																											
ZZZZZZ			00:38																											
ZZZZZZ			00:42																											
CCV 240-334578/182			00:47																											
CCB 240-334578/183			00:51																											
ZZZZZZ			00:56																											
ZZZZZZ			01:00																											
ZZZZZZ			01:05																											
ZZZZZZ			01:10																											
ZZZZZZ			01:14																											
ZZZZZZ			01:19																											
ZZZZZZ			01:23																											
ZZZZZZ			01:28																											
ZZZZZZ			01:32																											
ZZZZZZ			01:37																											
CCV 240-334578/194			01:41																											
CCB 240-334578/195			01:46																											
ZZZZZZ			01:50																											
ZZZZZZ			01:55																											
ZZZZZZ			01:59																											
ZZZZZZ			02:04																											
ZZZZZZ			02:08																											
CCV 240-334578/201			02:13																											
CCB 240-334578/202			02:17																											
ZZZZZZ			02:22																											
ZZZZZZ			02:27																											
ZZZZZZ			02:31																											
ZZZZZZ			02:36																											
ZZZZZZ			02:40																											
ZZZZZZ			02:45																											
ZZZZZZ			02:49																											
ZZZZZZ			02:54																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/02/2018 11:07 End Date: 07/03/2018 04:30

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			02:58																											
ZZZZZZ			03:03																											
CCV 240-334578/213			03:08																											
CCB 240-334578/214			03:12																											
ZZZZZZ			03:17																											
ZZZZZZ			03:21																											
ZZZZZZ			03:26																											
ZZZZZZ			03:30																											
ZZZZZZ			03:35																											
ZZZZZZ			03:40																											
ZZZZZZ			03:44																											
ZZZZZZ			03:49																											
ZZZZZZ			03:53																											
ZZZZZZ			03:58																											
CCV 240-334578/225			04:02																											
CCB 240-334578/226			04:07																											
CCV 240-334578/227			04:12																											
CCB 240-334578/228			04:16																											
CCVL 240-334578/229			04:21																											
CCV 240-334578/230			04:25																											
CCB 240-334578/231			04:30																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/03/2018 12:23 End Date: 07/04/2018 03:19

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			12:23																									
ICIS 240-334818/2			12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-334818/3 IC	1		12:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-334818/4 IC	1		12:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-334818/5 IC	1		12:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-334818/6 IC	1		12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-334818/7	1		12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-334818/8	1		12:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-334818/9	1		12:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-334818/10	1		13:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-334818/11	1		13:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-334818/12			13:12																									
CCB 240-334818/13			13:16																									
ZZZZZZ			14:09																									
ZZZZZZ			14:14																									
ZZZZZZ			14:18																									
ZZZZZZ			14:23																									
ZZZZZZ			14:27																									
ZZZZZZ			14:32																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									
CCV 240-334818/22			14:45																									
CCB 240-334818/23			14:49																									
CCVL 240-334818/24			14:54																									
ZZZZZZ			14:58																									
ZZZZZZ			15:03																									
ZZZZZZ			15:07																									
ZZZZZZ			15:12																									
ZZZZZZ			15:16																									
ZZZZZZ			15:21																									
ZZZZZZ			15:25																									
ZZZZZZ			15:30																									
ZZZZZZ			15:34																									
CCV 240-334818/34			15:39																									
CCB 240-334818/35			15:43																									
ZZZZZZ			15:48																									
ZZZZZZ			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:01																									
ZZZZZZ			16:05																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/03/2018 12:23 End Date: 07/04/2018 03:19

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			16:19																											
ZZZZZZ			16:23																											
ZZZZZZ			16:28																											
CCV 240-334818/46			16:32																											
CCB 240-334818/47			16:37																											
ZZZZZZ			16:41																											
CCV 240-334818/49			16:45																											
CCB 240-334818/50			16:50																											
CCVL 240-334818/51			16:54																											
ZZZZZZ			16:59																											
ZZZZZZ			17:03																											
ZZZZZZ			17:08																											
ZZZZZZ			17:12																											
ZZZZZZ			17:17																											
ZZZZZZ			17:21																											
ZZZZZZ			17:26																											
ZZZZZZ			17:30																											
ZZZZZZ			17:34																											
CCV 240-334818/61			17:39																											
CCB 240-334818/62			17:43																											
ZZZZZZ			17:48																											
ZZZZZZ			17:52																											
ZZZZZZ			17:57																											
CCV 240-334818/66			18:01																											
CCB 240-334818/67			18:06																											
ZZZZZZ			18:10																											
ZZZZZZ			18:15																											
ZZZZZZ			18:19																											
ZZZZZZ			18:23																											
ZZZZZZ			18:28																											
ZZZZZZ			18:32																											
ZZZZZZ			18:37																											
ZZZZZZ			18:41																											
ZZZZZZ			18:46																											
ZZZZZZ			18:50																											
CCV 240-334818/78			18:55																											
CCB 240-334818/79			18:59																											
ZZZZZZ			19:04																											
ZZZZZZ			19:08																											
ZZZZZZ			19:12																											
ZZZZZZ			19:17																											
ZZZZZZ			19:21																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/03/2018 12:23 End Date: 07/04/2018 03:19

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			19:26																										
ZZZZZZ			19:30																										
ZZZZZZ			19:35																										
ZZZZZZ			19:39																										
ZZZZZZ			19:43																										
CCV 240-334818/90			19:48																										
CCB 240-334818/91			19:52																										
ZZZZZZ			19:57																										
ZZZZZZ			20:01																										
CCV 240-334818/94			20:06																										
CCB 240-334818/95			20:10																										
ZZZZZZ			20:15																										
ZZZZZZ			20:19																										
ZZZZZZ			20:24																										
ZZZZZZ			20:28																										
ZZZZZZ			20:33																										
ZZZZZZ			20:37																										
ZZZZZZ			20:41																										
ZZZZZZ			20:46																										
ZZZZZZ			20:50																										
ZZZZZZ			20:55																										
CCV 240-334818/106			20:59																										
CCB 240-334818/107			21:04																										
ZZZZZZ			21:08																										
ZZZZZZ			21:13																										
ZZZZZZ			21:17																										
ZZZZZZ			21:22																										
ZZZZZZ			21:26																										
ZZZZZZ			21:30																										
ZZZZZZ			21:35																										
ZZZZZZ			21:39																										
ZZZZZZ			21:44																										
ZZZZZZ			21:48																										
CCV 240-334818/118			21:53																										
CCB 240-334818/119			21:57																										
ZZZZZZ			22:02																										
CCV 240-334818/121			22:06																										
CCB 240-334818/122			22:11																										
ZZZZZZ			22:15																										
ZZZZZZ			22:20																										
ZZZZZZ			22:24																										
ZZZZZZ			22:28																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/03/2018 12:23 End Date: 07/04/2018 03:19

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn							
ICSA 240-334818/127	1		22:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-334818/128	1		22:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			22:42																								
ZZZZZZ			22:46																								
ZZZZZZ			22:51																								
ZZZZZZ			22:55																								
ZZZZZZ			23:00																								
ZZZZZZ			23:04																								
CCV 240-334818/135			23:09																								
CCB 240-334818/136			23:13																								
ZZZZZZ			23:17																								
ZZZZZZ			23:22																								
ZZZZZZ			23:26																								
ZZZZZZ			23:31																								
ZZZZZZ			23:35																								
ZZZZZZ			23:40																								
ZZZZZZ			23:44																								
ZZZZZZ			23:49																								
ZZZZZZ			23:53																								
ZZZZZZ			23:57																								
CCV 240-334818/147			00:02																								
CCB 240-334818/148			00:06																								
ZZZZZZ			00:11																								
ZZZZZZ			00:15																								
ZZZZZZ			00:20																								
CCV 240-334818/152	1		00:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-334818/153	1		00:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-334818/154			00:33																								
MB 240-334363/1-A	1	R	00:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-334363/3-A	1	R	00:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			00:47																								
ZZZZZZ			00:51																								
ZZZZZZ			00:56																								
ZZZZZZ			01:00																								
ZZZZZZ			01:05																								
ZZZZZZ			01:09																								
240-97912-2	1	D	01:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-334818/164	1		01:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-334818/165	1		01:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97912-2	1	R	01:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97912-3	1	R	01:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-97912-3	1	D	01:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/03/2018 12:23 End Date: 07/04/2018 03:19

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
240-97912-4	1	R	01:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-4	1	D	01:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-5	1	R	01:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-5	1	D	01:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-6	1	R	01:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-6	1	D	02:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-7	1	R	02:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCV 240-334818/176	1		02:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-334818/177	1		02:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
240-97912-7	1	D	02:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
ZZZZZZ			02:25																											
ZZZZZZ			02:29																											
CCV 240-334818/181	1		02:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCB 240-334818/182	1		02:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
CCVL 240-334818/183	1		02:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			02:47																											
ZZZZZZ			02:52																											
ZZZZZZ			02:56																											
ZZZZZZ			03:01																											
ZZZZZZ			03:05																											
ZZZZZZ			03:10																											
ZZZZZZ			03:14																											
ZZZZZZ			03:19																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/13/2018 12:53 End Date: 07/14/2018 03:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			12:53																									
ICIS 240-336230/2			12:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD1 240-336230/3 IC	1		13:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD2 240-336230/4 IC	1		13:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD3 240-336230/5 IC	1		13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD4 240-336230/6 IC	1		13:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICV 240-336230/7	1		13:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICB 240-336230/8	1		13:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-336230/9	1		13:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-336230/10	1		13:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336230/11	1		13:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-336230/12			13:42																									
CCB 240-336230/13			13:46																									
ZZZZZZ			13:54																									
ZZZZZZ			13:59																									
ZZZZZZ			14:03																									
ZZZZZZ			14:08																									
ZZZZZZ			14:12																									
ZZZZZZ			14:17																									
ZZZZZZ			14:21																									
ZZZZZZ			14:26																									
ZZZZZZ			14:30																									
ZZZZZZ			14:34																									
CCV 240-336230/24			14:39																									
CCB 240-336230/25			14:43																									
ZZZZZZ			14:48																									
ZZZZZZ			14:52																									
ZZZZZZ			14:57																									
ZZZZZZ			15:01																									
ZZZZZZ			15:06																									
ZZZZZZ			15:10																									
ZZZZZZ			15:15																									
ZZZZZZ			15:19																									
ZZZZZZ			15:23																									
ZZZZZZ			15:28																									
CCV 240-336230/36			15:32																									
CCB 240-336230/37			15:37																									
CCVL 240-336230/38			15:41																									
ZZZZZZ			16:32																									
ZZZZZZ			16:37																									
ZZZZZZ			16:41																									
ZZZZZZ			16:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/13/2018 12:53 End Date: 07/14/2018 03:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			16:50																									
ZZZZZZ			16:55																									
ZZZZZZ			16:59																									
ZZZZZZ			17:03																									
ZZZZZZ			17:08																									
CCV 240-336230/48			17:12																									
CCB 240-336230/49			17:17																									
ZZZZZZ			17:21																									
ZZZZZZ			17:26																									
ZZZZZZ			17:30																									
ZZZZZZ			17:35																									
ZZZZZZ			17:39																									
ZZZZZZ			17:43																									
ZZZZZZ			17:48																									
ZZZZZZ			17:52																									
ZZZZZZ			17:57																									
ZZZZZZ			18:01																									
CCV 240-336230/60			18:06																									
CCB 240-336230/61			18:10																									
ZZZZZZ			18:15																									
ZZZZZZ			18:19																									
ZZZZZZ			18:24																									
ZZZZZZ			18:28																									
ZZZZZZ			18:33																									
ZZZZZZ			18:37																									
CCV 240-336230/68			18:41																									
CCB 240-336230/69			18:46																									
CCV 240-336230/70			18:50																									
CCB 240-336230/71			18:55																									
ZZZZZZ			18:59																									
ZZZZZZ			19:04																									
ZZZZZZ			19:08																									
ZZZZZZ			19:13																									
ZZZZZZ			19:17																									
ZZZZZZ			19:22																									
ZZZZZZ			19:26																									
CCV 240-336230/79			19:31																									
CCB 240-336230/80			19:35																									
CCVL 240-336230/81			19:40																									
ZZZZZZ			19:44																									
ZZZZZZ			19:49																									
ZZZZZZ			19:53																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/13/2018 12:53 End Date: 07/14/2018 03:50

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V										
ZZZZZZ			19:57																										
ZZZZZZ			20:02																										
ZZZZZZ			20:06																										
ZZZZZZ			20:11																										
ZZZZZZ			20:15																										
ZZZZZZ			20:20																										
CCV 240-336230/91			20:24																										
CCB 240-336230/92			20:29																										
ZZZZZZ			20:33																										
ZZZZZZ			20:38																										
ZZZZZZ			20:42																										
ZZZZZZ			20:46																										
ZZZZZZ			20:51																										
CCV 240-336230/98			20:55																										
CCB 240-336230/99			21:00																										
CCVL 240-336230/100			21:04																										
ZZZZZZ			21:09																										
ZZZZZZ			21:13																										
ZZZZZZ			21:18																										
ZZZZZZ			21:22																										
ZZZZZZ			21:27																										
ZZZZZZ			21:31																										
ZZZZZZ			21:36																										
ZZZZZZ			21:40																										
ZZZZZZ			21:44																										
CCV 240-336230/110			21:49																										
CCB 240-336230/111			21:53																										
ZZZZZZ			21:58																										
ZZZZZZ			22:02																										
ZZZZZZ			22:07																										
ZZZZZZ			22:11																										
ZZZZZZ			22:16																										
ZZZZZZ			22:20																										
ZZZZZZ			22:24																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
ZZZZZZ			22:38																										
CCV 240-336230/122			22:42																										
CCB 240-336230/123			22:47																										
ZZZZZZ			22:51																										
CCV 240-336230/125			22:56																										
CCB 240-336230/126			23:00																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/13/2018 12:53 End Date: 07/14/2018 03:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			23:04																									
ZZZZZZ			23:09																									
ZZZZZZ			23:13																									
ZZZZZZ			23:18																									
ZZZZZZ			23:22																									
ZZZZZZ			23:27																									
ZZZZZZ			23:31																									
ZZZZZZ			23:36																									
ZZZZZZ			23:40																									
ZZZZZZ			23:45																									
CCV 240-336230/137			23:49																									
CCB 240-336230/138			23:53																									
ZZZZZZ			23:58																									
ZZZZZZ			00:02																									
ZZZZZZ			00:07																									
ZZZZZZ			00:11																									
ZZZZZZ			00:16																									
ZZZZZZ			00:20																									
ZZZZZZ			00:25																									
ZZZZZZ			00:29																									
ZZZZZZ			00:34																									
ICSA 240-336230/148	1		00:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSAB 240-336230/149	1		00:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			00:47																									
CCV 240-336230/151			00:51																									
CCB 240-336230/152			00:56																									
ZZZZZZ			01:00																									
ZZZZZZ			01:05																									
CCV 240-336230/155	1		01:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336230/156	1		01:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-336230/157			01:18																									
ZZZZZZ			01:23																									
ZZZZZZ			01:27																									
ZZZZZZ			01:32																									
ZZZZZZ			01:36																									
ZZZZZZ			01:40																									
LCS 240-334389/3-A	1	R	01:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			01:49																									
ZZZZZZ			01:54																									
ZZZZZZ			01:58																									
CCV 240-336230/167	1		02:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336230/168	1		02:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/13/2018 12:53 End Date: 07/14/2018 03:50

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
240-97969-2	1	R	02:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-2 SD	5	R	02:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			02:21																											
240-97969-2 MS	1	R	02:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-2 MSD	1	R	02:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
ZZZZZZ			02:34																											
240-97969-2	1	D	02:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-3	1	R	02:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-4	1	R	02:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-4	1	D	02:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-336230/179	1		02:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-336230/180	1		03:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-5	1	R	03:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-5	1	D	03:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-6	1	R	03:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-6	1	D	03:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-7	1	R	03:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
240-97969-7	1	D	03:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-336230/187	1		03:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCB 240-336230/188	1		03:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCVL 240-336230/189	1		03:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
CCV 240-336230/190			03:45																											
CCB 240-336230/191			03:50																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Zn																								
ZZZZZZ			09:50																										
ICIS 240-336326/2			09:54	X	X																								
STD1 240-336326/3 IC	1		09:59	X	X																								
STD2 240-336326/4 IC	1		10:03	X	X																								
STD3 240-336326/5 IC	1		10:08	X	X																								
STD4 240-336326/6 IC	1		10:12	X	X																								
ICV 240-336326/7	1		10:17	X	X																								
ICB 240-336326/8	1		10:21	X																									
ICVL 240-336326/9	1		10:26	X	X																								
ICSA 240-336326/10	1		10:30	X																									
ICSAB 240-336326/11	1		10:35	X	X																								
CCV 240-336326/12			10:39																										
CCB 240-336326/13			10:44																										
ZZZZZZ			10:48																										
ZZZZZZ			10:53																										
ZZZZZZ			10:57																										
ZZZZZZ			11:02																										
ZZZZZZ			11:06																										
CCV 240-336326/19			11:10																										
CCB 240-336326/20			11:15																										
ZZZZZZ			11:19																										
ZZZZZZ			11:24																										
ZZZZZZ			11:28																										
ZZZZZZ			11:33																										
ZZZZZZ			11:37																										
CCV 240-336326/26			11:42																										
CCB 240-336326/27			11:46																										
CCB 240-336326/28			11:51																										
CCV 240-336326/29			11:55																										
CCB 240-336326/30			12:00																										
CCVL 240-336326/31			12:04																										
ZZZZZZ			12:09																										
ZZZZZZ			12:13																										
ZZZZZZ			12:17																										
ZZZZZZ			12:22																										
ZZZZZZ			12:26																										
CCVL 240-336326/37			12:31																										
ZZZZZZ			12:35																										
ZZZZZZ			12:40																										
ZZZZZZ			12:44																										
CCV 240-336326/41	1		12:49	X	X																								
CCB 240-336326/42	1		12:53	X																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Zn																								
ZZZZZZ			12:58																										
CCVL 240-336326/44			13:02																										
ZZZZZZ			13:07																										
LCS 240-334389/3-A	1	R	13:11	X	X																								
ZZZZZZ			13:16																										
ZZZZZZ			13:20																										
ZZZZZZ			13:24																										
240-97969-2	1	R	13:29	X																									
240-97969-2 SD	5	R	13:33	X																									
ZZZZZZ			13:38																										
CCV 240-336326/53	1		13:42	X	X																								
CCB 240-336326/54	1		13:47	X																									
240-97969-2 MS	1	R	13:51	X	X																								
240-97969-2 MSD	1	R	13:56	X	X																								
ZZZZZZ			14:00																										
240-97969-2	1	D	14:04	X																									
240-97969-3	1	R	14:09	X																									
240-97969-4	1	R	14:13	X																									
240-97969-4	1	D	14:18	X																									
240-97969-5	1	R	14:22	X																									
240-97969-5	1	D	14:27	X																									
240-97969-6	1	R	14:31	X																									
CCV 240-336326/65	1		14:36	X	X																								
CCB 240-336326/66	1		14:40	X																									
240-97969-6	1	D	14:45	X																									
240-97969-7	1	R	14:49	X																									
240-97969-7	1	D	14:54	X																									
CCV 240-336326/70	1		14:58	X	X																								
CCB 240-336326/71	1		15:02	X																									
CCVL 240-336326/72	1		15:07	X	X																								
ZZZZZZ			15:11																										
ZZZZZZ			15:16																										
ZZZZZZ			15:20																										
ZZZZZZ			15:25																										
ZZZZZZ			15:29																										
ZZZZZZ			15:34																										
ZZZZZZ			15:38																										
ZZZZZZ			15:43																										
ZZZZZZ			15:47																										
CCV 240-336326/82			15:51																										
CCB 240-336326/83			15:56																										
ZZZZZZ			16:00																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Zn																								
ZZZZZZ			16:05																										
CCV 240-336326/86			16:09																										
CCB 240-336326/87			16:14																										
CCVL 240-336326/88			16:18																										
ZZZZZZ			16:23																										
ZZZZZZ			16:27																										
ZZZZZZ			16:32																										
ZZZZZZ			16:36																										
CCV 240-336326/93			16:40																										
CCB 240-336326/94			16:45																										
CCVL 240-336326/95			16:49																										
ZZZZZZ			16:54																										
ZZZZZZ			16:58																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
ZZZZZZ			17:21																										
ZZZZZZ			17:25																										
ZZZZZZ			17:29																										
CCV 240-336326/105			17:34																										
CCB 240-336326/106			17:38																										
ZZZZZZ			17:43																										
ZZZZZZ			17:47																										
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:23																										
CCV 240-336326/117			18:27																										
CCB 240-336326/118			18:32																										
ZZZZZZ			18:36																										
ZZZZZZ			18:41																										
CCV 240-336326/121			18:45																										
CCB 240-336326/122			18:50																										
CCVL 240-336326/123			18:54																										
ZZZZZZ			18:59																										
ZZZZZZ			19:03																										
ZZZZZZ			19:08																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Zn																								
ZZZZZZ			19:12																										
ZZZZZZ			19:16																										
ZZZZZZ			19:21																										
ZZZZZZ			19:25																										
ZZZZZZ			19:30																										
ZZZZZZ			19:34																										
CCV 240-336326/133			19:39																										
CCB 240-336326/134			19:43																										
ZZZZZZ			19:48																										
ZZZZZZ			19:52																										
CCV 240-336326/137			19:56																										
CCB 240-336326/138			20:01																										
CCVL 240-336326/139			20:05																										
ZZZZZZ			20:10																										
ICSA 240-336326/141			20:14																										
ICSAB 240-336326/142			20:19																										
ZZZZZZ			20:23																										
ZZZZZZ			20:28																										
ZZZZZZ			20:32																										
ZZZZZZ			20:37																										
ZZZZZZ			20:41																										
ZZZZZZ			20:46																										
ZZZZZZ			20:50																										
ZZZZZZ			20:54																										
CCV 240-336326/151			20:59																										
CCB 240-336326/152			21:03																										
ZZZZZZ			21:08																										
ZZZZZZ			21:12																										
ZZZZZZ			21:17																										
ZZZZZZ			21:21																										
ZZZZZZ			21:26																										
ZZZZZZ			21:30																										
ZZZZZZ			21:35																										
ZZZZZZ			21:39																										
CCV 240-336326/161			21:43																										
CCB 240-336326/162			21:48																										
ZZZZZZ			21:52																										
ZZZZZZ			21:57																										
ZZZZZZ			22:01																										
ZZZZZZ			22:06																										
ZZZZZZ			22:10																										
ZZZZZZ			22:15																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Zn																								
ZZZZZZ			22:19																										
ZZZZZZ			22:24																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
CCV 240-336326/173			22:38																										
CCB 240-336326/174			22:42																										
ZZZZZZ			22:47																										
ZZZZZZ			22:51																										
ZZZZZZ			22:55																										
ZZZZZZ			23:00																										
ZZZZZZ			23:05																										
CCV 240-336326/180			23:09																										
CCB 240-336326/181			23:14																										
CCV 240-336326/182			23:18																										
CCB 240-336326/183			23:23																										

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			09:21																										
ICIS 240-336575/2			09:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD1 240-336575/3 IC	1		09:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD2 240-336575/4 IC	1		09:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD3 240-336575/5 IC	1		09:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
STD4 240-336575/6 IC	1		09:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICV 240-336575/7	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICB 240-336575/8	1		09:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			09:57																										
ICSA 240-336575/10	1		10:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336575/11	1		10:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-336575/12			10:10																										
CCB 240-336575/13			10:15																										
ICVL 240-336575/14	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			10:24																										
ZZZZZZ			10:28																										
ZZZZZZ			10:33																										
ZZZZZZ			10:37																										
ZZZZZZ			10:42																										
ZZZZZZ			10:46																										
ZZZZZZ			10:51																										
ZZZZZZ			10:55																										
ZZZZZZ			11:00																										
CCV 240-336575/24			11:04																										
CCB 240-336575/25			11:09																										
CCVL 240-336575/26			11:13																										
ZZZZZZ			11:18																										
ZZZZZZ			11:22																										
ZZZZZZ			11:26																										
ZZZZZZ			11:31																										
ZZZZZZ			11:35																										
CCV 240-336575/32			11:40																										
CCB 240-336575/33			11:44																										
ZZZZZZ			11:49																										
ZZZZZZ			11:53																										
ZZZZZZ			11:58																										
ZZZZZZ			12:02																										
ZZZZZZ			12:06																										
ZZZZZZ			12:11																										
ZZZZZZ			12:15																										
ZZZZZZ			12:20																										
ZZZZZZ			12:24																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
CCV 240-336575/43			12:29																									
CCB 240-336575/44			12:33																									
ZZZZZZ			12:38																									
ZZZZZZ			12:42																									
ZZZZZZ			12:47																									
ZZZZZZ			12:51																									
ZZZZZZ			12:55																									
ZZZZZZ			13:00																									
ZZZZZZ			13:04																									
ZZZZZZ			13:09																									
ZZZZZZ			13:13																									
ZZZZZZ			13:18																									
CCV 240-336575/55			13:22																									
CCB 240-336575/56			13:27																									
ZZZZZZ			13:31																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:44																									
ZZZZZZ			13:49																									
ZZZZZZ			13:53																									
ZZZZZZ			13:58																									
ZZZZZZ			14:02																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
CCV 240-336575/67	1		14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-336575/68	1		14:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			14:24																									
ZZZZZZ			14:29																									
ZZZZZZ			14:33																									
ZZZZZZ			14:38																									
ZZZZZZ			14:42																									
240-97969-3	1	D	14:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			14:52																									
CCV 240-336575/76	1		14:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-336575/77	1		15:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCVL 240-336575/78	1		15:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			15:09																									
ZZZZZZ			15:14																									
ZZZZZZ			15:18																									
ZZZZZZ			15:23																									
ZZZZZZ			15:27																									
ZZZZZZ			15:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V								
MB 240-334389/1-A	1	R	15:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			15:41																								
ZZZZZZ			15:45																								
CCV 240-336575/88	1		15:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336575/89	1		15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			15:59																								
ZZZZZZ			16:03																								
ZZZZZZ			16:07																								
CCV 240-336575/93			16:12																								
CCB 240-336575/94			16:16																								
CCVL 240-336575/95			16:21																								
ZZZZZZ			16:25																								
CCV 240-336575/97			16:30																								
CCB 240-336575/98			16:34																								
ZZZZZZ			16:39																								
CCV 240-336575/100			16:43																								
CCB 240-336575/101			16:47																								
CCVL 240-336575/102			16:52																								
ZZZZZZ			16:56																								
ZZZZZZ			17:01																								
CCV 240-336575/105			17:05																								
CCB 240-336575/106			17:10																								
CCVL 240-336575/107			17:14																								
ZZZZZZ			17:19																								
ZZZZZZ			17:23																								
ZZZZZZ			17:28																								
ZZZZZZ			17:32																								
ZZZZZZ			17:37																								
ZZZZZZ			17:41																								
ZZZZZZ			17:45																								
ZZZZZZ			17:50																								
ZZZZZZ			17:54																								
CCV 240-336575/117			17:59																								
CCB 240-336575/118			18:03																								
ZZZZZZ			18:08																								
ZZZZZZ			18:12																								
ZZZZZZ			18:17																								
ZZZZZZ			18:21																								
CCV 240-336575/123			18:26																								
CCB 240-336575/124			18:30																								
ZZZZZZ			18:34																								
ZZZZZZ			18:39																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			18:43																										
ZZZZZZ			18:48																										
ZZZZZZ			18:52																										
ZZZZZZ			18:57																										
ZZZZZZ			19:01																										
ZZZZZZ			19:06																										
ZZZZZZ			19:10																										
ZZZZZZ			19:14																										
CCV 240-336575/135			19:19																										
CCB 240-336575/136			19:23																										
ZZZZZZ			19:28																										
ZZZZZZ			19:32																										
ZZZZZZ			19:37																										
ZZZZZZ			19:41																										
ZZZZZZ			19:46																										
ZZZZZZ			19:50																										
ZZZZZZ			19:55																										
ZZZZZZ			19:59																										
ZZZZZZ			20:03																										
ZZZZZZ			20:08																										
CCV 240-336575/147			20:12																										
CCB 240-336575/148			20:17																										
ZZZZZZ			20:21																										
ZZZZZZ			20:26																										
ICSA 240-336575/151			20:30																										
ICSAB 240-336575/152			20:35																										
ZZZZZZ			20:39																										
ZZZZZZ			20:44																										
ZZZZZZ			20:48																										
ZZZZZZ			20:53																										
ZZZZZZ			20:57																										
ZZZZZZ			21:01																										
ZZZZZZ			21:06																										
ZZZZZZ			21:10																										
CCV 240-336575/161			21:15																										
CCB 240-336575/162			21:19																										
CCV 240-336575/163			21:24																										
CCB 240-336575/164			21:28																										
ZZZZZZ			21:33																										
ZZZZZZ			21:37																										
ZZZZZZ			21:42																										
ZZZZZZ			21:46																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V									
ZZZZZZ			21:51																										
ZZZZZZ			21:55																										
ZZZZZZ			22:00																										
ZZZZZZ			22:04																										
ZZZZZZ			22:08																										
ZZZZZZ			22:13																										
CCV 240-336575/175			22:17																										
CCB 240-336575/176			22:22																										
ZZZZZZ			22:26																										
ZZZZZZ			22:31																										
ZZZZZZ			22:35																										
ZZZZZZ			22:40																										
ZZZZZZ			22:44																										
ZZZZZZ			22:49																										
ZZZZZZ			22:53																										
ZZZZZZ			22:58																										
ZZZZZZ			23:02																										
ZZZZZZ			23:07																										
CCV 240-336575/187			23:11																										
CCB 240-336575/188			23:15																										
ZZZZZZ			23:20																										
ZZZZZZ			23:25																										
ZZZZZZ			23:29																										
ZZZZZZ			23:34																										
ZZZZZZ			23:38																										
CCV 240-336575/194			23:43																										
CCB 240-336575/195			23:47																										
CCVL 240-336575/196			23:52																										
ZZZZZZ			23:56																										
ZZZZZZ			00:01																										
ZZZZZZ			00:05																										
ZZZZZZ			00:10																										
ZZZZZZ			00:14																										
ZZZZZZ			00:19																										
ZZZZZZ			00:23																										
ZZZZZZ			00:28																										
ZZZZZZ			00:32																										
CCV 240-336575/206			00:37																										
CCB 240-336575/207			00:41																										
ZZZZZZ			00:46																										
ZZZZZZ			00:50																										
ZZZZZZ			00:55																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																											
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V											
ZZZZZZ			00:59																												
ZZZZZZ			01:04																												
CCV 240-336575/213			01:08																												
CCB 240-336575/214			01:13																												
CCV 240-336575/215			01:17																												
CCB 240-336575/216			01:22																												

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/02/2018 10:55 End Date: 07/02/2018 16:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-334525/1-A			10:55	X																								
IC 240-334525/2-A			10:57	X																								
IC 240-334525/3-A			10:59	X																								
IC 240-334525/4-A			11:01	X																								
IC 240-334525/5-A			11:03	X																								
IC 240-334525/6-A			11:05	X																								
ICV 240-334525/7-A	1		11:08	X																								
ICB 240-334525/8-A	1		11:10	X																								
CRA 240-334525/9-A	1		11:12	X																								
CCV 240-334525/10-A			11:14																									
CCB 240-334525/11-A			11:16																									
CCV 240-334525/10-A			11:18																									
CCB 240-334525/11-A			11:20																									
ZZZZZZ			11:57																									
ZZZZZZ			11:59																									
ZZZZZZ			12:01																									
ZZZZZZ			12:03																									
ZZZZZZ			12:05																									
ZZZZZZ			12:07																									
ZZZZZZ			12:09																									
ZZZZZZ			12:11																									
ZZZZZZ			12:13																									
ZZZZZZ			12:15																									
CCV 240-334525/10-A	1		12:17	X																								
CCB 240-334525/11-A	1		12:19	X																								
MB 240-334117/1-A	1	T	12:21	X																								
LCS 240-334117/2-A	1	T	12:23	X																								
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:29																									
ZZZZZZ			12:31																									
240-97836-2	1	T	12:33	X																								
240-97836-2	1	D	12:35	X																								
240-97836-3	1	T	12:37	X																								
240-97836-3	1	D	12:39	X																								
CCV 240-334525/10-A	1		12:41	X																								
CCB 240-334525/11-A	1		12:43	X																								
240-97836-4	1	T	12:45	X																								
240-97836-4	1	D	12:47	X																								
240-97836-5	1	T	12:49	X																								
240-97836-5	1	D	12:51	X																								
240-97836-6	1	T	12:53	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/02/2018 10:55 End Date: 07/02/2018 16:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-97836-6	1	D	12:55	X																								
240-97836-7	1	T	12:57	X																								
240-97836-7	1	D	12:59	X																								
ZZZZZZ			13:01																									
ZZZZZZ			13:03																									
CCV 240-334525/10-A	1		13:05	X																								
CCB 240-334525/11-A	1		13:07	X																								
ZZZZZZ			13:09																									
ZZZZZZ			13:11																									
ZZZZZZ			13:13																									
ZZZZZZ			13:15																									
ZZZZZZ			13:17																									
ZZZZZZ			13:19																									
ZZZZZZ			13:21																									
ZZZZZZ			13:23																									
ZZZZZZ			13:25																									
ZZZZZZ			13:27																									
CCV 240-334525/10-A			13:30																									
CCB 240-334525/11-A			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
CCV 240-334525/10-A			13:54																									
CCB 240-334525/11-A			13:55																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
CCV 240-334525/10-A			14:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/02/2018 10:55 End Date: 07/02/2018 16:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-334525/11-A			14:19																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:38																									
ZZZZZZ			14:41																									
CCV 240-334525/10-A			14:43																									
CCB 240-334525/11-A			14:45																									
ZZZZZZ			14:47																									
ZZZZZZ			14:49																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:57																									
ZZZZZZ			14:59																									
ZZZZZZ			15:01																									
ZZZZZZ			15:03																									
ZZZZZZ			15:05																									
CCV 240-334525/10-A			15:07																									
CCB 240-334525/11-A			15:09																									
ZZZZZZ			15:11																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
ZZZZZZ			15:19																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:28																									
ZZZZZZ			15:30																									
CCV 240-334525/10-A			15:32																									
CCB 240-334525/11-A			15:34																									
ZZZZZZ			15:36																									
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/02/2018 10:55 End Date: 07/02/2018 16:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:46																									
ZZZZZZ			15:48																									
ZZZZZZ			15:50																									
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
CCV 240-334525/10-A			15:55																									
CCB 240-334525/11-A			15:57																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:03																									
ZZZZZZ			16:05																									
ZZZZZZ			16:07																									
CCV 240-334525/10-A			16:09																									
CCB 240-334525/11-A			16:11																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/03/2018 06:40 End Date: 07/03/2018 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-334525/1-A			06:40	X																								
IC 240-334525/2-A			06:42	X																								
IC 240-334525/3-A			06:44	X																								
IC 240-334525/4-A			06:46	X																								
IC 240-334525/5-A			06:48	X																								
IC 240-334525/6-A			06:50	X																								
ICV 240-334525/7-A	1		07:02	X																								
ICB 240-334525/8-A	1		07:04	X																								
CRA 240-334525/9-A	1		07:07	X																								
CCV 240-334525/10-A			07:09																									
CCB 240-334525/11-A			07:10																									
CCV 240-334525/10-A			07:13																									
CCB 240-334525/11-A			07:15																									
ZZZZZZ			08:12																									
ZZZZZZ			08:14																									
ZZZZZZ			08:16																									
ZZZZZZ			08:18																									
ZZZZZZ			08:20																									
ZZZZZZ			08:22																									
ZZZZZZ			08:24																									
CCV 240-334525/10-A			08:26																									
CCB 240-334525/11-A			08:28																									
ZZZZZZ			08:58																									
ZZZZZZ			09:00																									
ZZZZZZ			09:02																									
ZZZZZZ			09:04																									
ZZZZZZ			09:06																									
ZZZZZZ			09:08																									
ZZZZZZ			09:10																									
CCV 240-334525/10-A			09:13																									
CCB 240-334525/11-A			09:16																									
ZZZZZZ			09:55																									
ZZZZZZ			09:56																									
ZZZZZZ			09:58																									
CCV 240-334525/10-A			10:00																									
CCB 240-334525/11-A			10:02																									
ZZZZZZ			10:05																									
ZZZZZZ			10:07																									
ZZZZZZ			10:09																									
ZZZZZZ			10:10																									
ZZZZZZ			10:12																									
ZZZZZZ			10:14																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/03/2018 06:40 End Date: 07/03/2018 19:08

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			10:16																									
ZZZZZZ			10:18																									
ZZZZZZ			10:20																									
ZZZZZZ			10:22																									
CCV 240-334525/10-A			10:24																									
CCB 240-334525/11-A			10:26																									
ZZZZZZ			10:28																									
ZZZZZZ			10:30																									
ZZZZZZ			10:32																									
ZZZZZZ			10:34																									
CCV 240-334525/10-A			10:36																									
CCB 240-334525/11-A			10:38																									
ZZZZZZ			14:33																									
ZZZZZZ			14:35																									
ZZZZZZ			14:37																									
ZZZZZZ			14:40																									
ZZZZZZ			14:41																									
ZZZZZZ			14:44																									
CCV 240-334525/10-A			14:46																									
CCB 240-334525/11-A			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
ZZZZZZ			14:56																									
ZZZZZZ			14:58																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
CCV 240-334525/10-A			15:10																									
CCB 240-334525/11-A			15:12																									
ZZZZZZ			15:14																									
ZZZZZZ			15:16																									
ZZZZZZ			15:18																									
ZZZZZZ			15:20																									
ZZZZZZ			15:22																									
ZZZZZZ			15:24																									
ZZZZZZ			15:26																									
ZZZZZZ			15:27																									
ZZZZZZ			15:29																									
ZZZZZZ			15:31																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/03/2018 06:40 End Date: 07/03/2018 19:08

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
CCV 240-334525/10-A	1		15:33	X
CCB 240-334525/11-A	1		15:35	X
MB 240-334365/1-A	1	T	15:38	X
LCS 240-334365/2-A	1	T	15:40	X
ZZZZZZ			15:42	
ZZZZZZ			15:44	
ZZZZZZ			15:46	
ZZZZZZ			15:48	
240-97912-2	1	D	15:50	X
240-97912-2	1	T	15:52	X
240-97912-3	1	T	15:54	X
240-97912-3	1	D	15:56	X
CCV 240-334525/10-A	1		15:58	X
CCB 240-334525/11-A	1		16:00	X
240-97912-4	1	T	16:02	X
240-97912-4	1	D	16:04	X
240-97912-5	1	T	16:06	X
240-97912-5	1	D	16:08	X
240-97912-6	1	T	16:10	X
240-97912-6	1	D	16:12	X
240-97912-7	1	T	16:14	X
240-97912-7	1	D	16:16	X
ZZZZZZ			16:18	
ZZZZZZ			16:20	
CCV 240-334525/10-A	1		16:22	X
CCB 240-334525/11-A	1		16:24	X
ZZZZZZ			16:26	
ZZZZZZ			16:28	
ZZZZZZ			16:30	
CCV 240-334525/10-A	1		16:32	X
CCB 240-334525/11-A	1		16:34	X
MB 240-334390/1-A	1	T	16:57	X
LCS 240-334390/2-A	1	T	16:58	X
240-97969-2	1	T	17:00	X
240-97969-2 MS	1	T	17:03	X
240-97969-2 MSD	1	T	17:05	X
ZZZZZZ			17:07	
ZZZZZZ			17:09	
CCV 240-334525/10-A	1		17:11	X
CCB 240-334525/11-A	1		17:13	X
ZZZZZZ			17:16	
ZZZZZZ			17:18	

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/03/2018 06:40 End Date: 07/03/2018 19:08

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			17:20	
240-97969-2	1	D	17:22	X
240-97969-3	1	T	17:24	X
240-97969-3	1	D	17:26	X
240-97969-4	1	T	17:27	X
240-97969-4	1	D	17:29	X
240-97969-5	1	T	17:31	X
240-97969-5	1	D	17:33	X
CCV 240-334525/10-A	1		17:35	X
CCB 240-334525/11-A	1		17:37	X
240-97969-6	1	T	17:40	X
240-97969-6	1	D	17:42	X
240-97969-7	1	T	17:43	X
240-97969-7	1	D	17:45	X
ZZZZZZ			17:48	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:54	
ZZZZZZ			17:55	
ZZZZZZ			17:57	
CCV 240-334525/10-A	1		17:59	X
CCB 240-334525/11-A	1		18:02	X
ZZZZZZ			18:04	
ZZZZZZ			18:06	
ZZZZZZ			18:08	
ZZZZZZ			18:10	
ZZZZZZ			18:13	
ZZZZZZ			18:15	
ZZZZZZ			18:17	
ZZZZZZ			18:19	
ZZZZZZ			18:21	
ZZZZZZ			18:23	
CCV 240-334525/10-A			18:25	
CCB 240-334525/11-A			18:27	
ZZZZZZ			18:29	
ZZZZZZ			18:31	
ZZZZZZ			18:33	
ZZZZZZ			18:35	
ZZZZZZ			18:37	
ZZZZZZ			18:39	
ZZZZZZ			18:41	
ZZZZZZ			18:43	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/03/2018 06:40 End Date: 07/03/2018 19:08

Lab Sample Id	D/F	Type	Time	Analytes																									
				Hg																									
ZZZZZZ			18:46																										
ZZZZZZ			18:48																										
CCV 240-334525/10-A			18:50																										
CCB 240-334525/11-A			18:52																										
ZZZZZZ			18:54																										
ZZZZZZ			18:56																										
ZZZZZZ			18:58																										
ZZZZZZ			19:00																										
ZZZZZZ			19:02																										
ZZZZZZ			19:04																										
CCV 240-334525/10-A			19:06																										
CCB 240-334525/11-A			19:08																										

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP Instrument ID: I12 Start Date: 07/06/2018 End Date: 07/06/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-335034/1	10:05										
ICV 240-335034/4	10:19	90		97		95		99			
ICB 240-335034/5	10:23	100		99		98		99			
ICVL 240-335034/6	10:28	97		99		98		99			
ICSA 240-335034/8	10:38	74		88		85		95			
ICSAB 240-335034/9	10:42	74		88		85		95			
CCV 240-335034/42	13:28	85		95		93		96			
CCB 240-335034/43	13:32	98		98		98		97			
MB 240-334389/1-A	14:46	101		101		101		103			
LCS 240-334389/2-A	14:51	89		96		96		101			
CCV 240-335034/55	14:55	86		96		95		99			
CCB 240-335034/56	15:00	99		100		100		100			
240-97969-2	15:05	91		114		114		119			
240-97969-2 SD	15:09	97		102		102		104			
240-97969-2 MS	15:18	85		111		111		117			
240-97969-2 MSD	15:23	85		111		110		117			
CCV 240-335034/67	15:51	86		96		94		99			
CCB 240-335034/68	15:55	100		100		100		100			
240-97969-3	16:00	87		101		101		107			
240-97969-4	16:05	86		94		94		101			
CCV 240-335034/74	16:24	86		96		95		100			
CCB 240-335034/75	16:28	100		100		100		101			
CCVL 240-335034/76	16:33	98		100		99		101			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/02/2018 End Date: 07/02/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-334578/3 IC	11:16	102		105		103		109		104	
STD2 240-334578/4 IC	11:20	99		102		103		98		98	
STD3 240-334578/5 IC	11:25	100		103		102		96		97	
STD4 240-334578/6 IC	11:29	99		101		100		99		99	
ICV 240-334578/7	11:34	98		107		102		107		103	
ICB 240-334578/8	11:38	99		100		99		99		98	
ICVL 240-334578/9	11:43	100		102		102		100		99	
ICSA 240-334578/10	11:47	96		99		100		93		94	
ICSAB 240-334578/11	11:52	94		99		101		95		96	
CCV 240-334578/19	12:31	95		100		102		95		93	
CCB 240-334578/20	12:36	96		97		97		95		94	
MB 240-334114/1-A	12:40	101		94		107		94		91	
LCS 240-334114/2-A	12:45	92		93		98		91		88	
240-97836-2	13:16	88		92		94		87		85	
240-97836-2	13:21	88		89		95		85		83	
CCV 240-334578/31	13:25	92		94		96		90		87	
CCB 240-334578/32	13:30	91		91		95		90		87	
CCV 240-334578/36	13:48	94		98		100		96		91	
CCB 240-334578/37	13:52	95		93		98		91		88	
240-97836-3	13:57	86		89		94		82		81	
240-97836-3	14:01	85		88		94		83		81	
240-97836-4	14:06	86		90		94		83		82	
240-97836-4	14:10	84		91		96		85		82	
240-97836-5	14:15	87		89		97		82		80	
240-97836-5	14:19	87		91		96		84		81	
240-97836-6	14:23	86		90		96		81		80	
240-97836-6	14:28	87		91		96		82		81	
240-97836-7	14:32	85		88		92		86		85	
240-97836-7	14:37	85		90		92		90		87	
CCV 240-334578/48	14:42	85		93		93		89		87	
CCB 240-334578/49	14:46	89		90		92		90		88	
CCVL 240-334578/87	17:38	72		79		81		86		87	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/02/2018 End Date: 07/02/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-334578/3 IC	11:16	104		104		103					
STD2 240-334578/4 IC	11:20	100		100		98					
STD3 240-334578/5 IC	11:25	101		99		96					
STD4 240-334578/6 IC	11:29	98		99		99					
ICV 240-334578/7	11:34	104		105		101					
ICB 240-334578/8	11:38	97		97		97					
ICVL 240-334578/9	11:43	97		98		98					
ICSA 240-334578/10	11:47	96		97		94					
ICSAB 240-334578/11	11:52	100		99		96					
CCV 240-334578/19	12:31	94		94		93					
CCB 240-334578/20	12:36	93		92		93					
MB 240-334114/1-A	12:40	92		90		93					
LCS 240-334114/2-A	12:45	91		88		91					
240-97836-2	13:16	88		85		85					
240-97836-2	13:21	85		79		82					
CCV 240-334578/31	13:25	90		84		88					
CCB 240-334578/32	13:30	86		80		87					
CCV 240-334578/36	13:48	93		94		90					
CCB 240-334578/37	13:52	88		80		87					
240-97836-3	13:57	90		86		81					
240-97836-3	14:01	91		84		80					
240-97836-4	14:06	86		85		82					
240-97836-4	14:10	90		86		83					
240-97836-5	14:15	84		82		79					
240-97836-5	14:19	83		78		79					
240-97836-6	14:23	90		87		78					
240-97836-6	14:28	86		79		78					
240-97836-7	14:32	84		78		86					
240-97836-7	14:37	88		87		88					
CCV 240-334578/48	14:42	89		87		87					
CCB 240-334578/49	14:46	86		80		86					
CCVL 240-334578/87	17:38	85		81		83					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/03/2018 End Date: 07/04/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-334818/3 IC	12:32	98		108		101		106		107	
STD2 240-334818/4 IC	12:36	99		106		102		103		104	
STD3 240-334818/5 IC	12:41	96		101		100		96		97	
STD4 240-334818/6 IC	12:45	95		98		97		100		101	
ICV 240-334818/7	12:50	94		101		99		98		99	
ICB 240-334818/8	12:54	96		100		97		101		99	
ICVL 240-334818/9	12:59	97		100		98		99		101	
ICSA 240-334818/10	13:03	92		98		98		94		98	
ICSAB 240-334818/11	13:08	90		98		100		94		97	
ICSA 240-334818/127	22:33	91		98		90		97		102	
ICSAB 240-334818/128	22:37	87		93		89		94		101	
CCV 240-334818/152	00:24	92		97		93		99		106	
CCB 240-334818/153	00:29	94		97		90		103		107	
MB 240-334363/1-A	00:38	88		92		89		98		104	
LCS 240-334363/3-A	00:42	85		91		89		97		100	
240-97912-2	01:13	84		92		89		93		100	
CCV 240-334818/164	01:18	89		94		89		96		103	
CCB 240-334818/165	01:22	90		92		87		98		105	
240-97912-2	01:27	82		90		87		88		95	
240-97912-3	01:31	81		90		87		90		98	
240-97912-3	01:36	79		88		87		88		94	
240-97912-4	01:40	78		89		84		92		97	
240-97912-4	01:45	80		88		89		91		97	
240-97912-5	01:49	83		91		89		94		100	
240-97912-5	01:54	82		90		89		92		97	
240-97912-6	01:58	82		89		87		93		98	
240-97912-6	02:03	82		91		87		95		101	
240-97912-7	02:07	85		92		88		97		102	
CCV 240-334818/176	02:11	89		96		89		97		103	
CCB 240-334818/177	02:16	92		95		91		101		107	
240-97912-7	02:20	83		92		87		96		101	
CCV 240-334818/181	02:34	90		95		89		96		102	
CCB 240-334818/182	02:38	91		94		88		99		105	
CCVL 240-334818/183	02:43	93		95		89		100		106	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/03/2018 End Date: 07/04/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-334818/3 IC	12:32	106		107		109					
STD2 240-334818/4 IC	12:36	105		106		107					
STD3 240-334818/5 IC	12:41	102		102		100					
STD4 240-334818/6 IC	12:45	100		102		105					
ICV 240-334818/7	12:50	102		103		103					
ICB 240-334818/8	12:54	99		101		105					
ICVL 240-334818/9	12:59	100		100		105					
ICSA 240-334818/10	13:03	102		104		103					
ICSAB 240-334818/11	13:08	104		105		104					
ICSA 240-334818/127	22:33	114		115		111					
ICSAB 240-334818/128	22:37	110		109		109					
CCV 240-334818/152	00:24	110		108		112					
CCB 240-334818/153	00:29	111		110		112					
MB 240-334363/1-A	00:38	106		106		111					
LCS 240-334363/3-A	00:42	107		108		109					
240-97912-2	01:13	124		121		108					
CCV 240-334818/164	01:18	110		112		110					
CCB 240-334818/165	01:22	108		107		111					
240-97912-2	01:27	117		116		103					
240-97912-3	01:31	116		116		104					
240-97912-3	01:36	115		113		101					
240-97912-4	01:40	107		108		104					
240-97912-4	01:45	105		105		103					
240-97912-5	01:49	108		108		106					
240-97912-5	01:54	107		106		104					
240-97912-6	01:58	111		111		106					
240-97912-6	02:03	110		110		107					
240-97912-7	02:07	109		108		112					
CCV 240-334818/176	02:11	109		109		110					
CCB 240-334818/177	02:16	111		109		113					
240-97912-7	02:20	107		107		111					
CCV 240-334818/181	02:34	110		108		110					
CCB 240-334818/182	02:38	108		108		110					
CCVL 240-334818/183	02:43	109		109		113					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/13/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336230/3 IC	13:02	102		102		100		98		98	
STD2 240-336230/4 IC	13:06	97		100		100		93		93	
STD3 240-336230/5 IC	13:11	96		101		101		92		91	
STD4 240-336230/6 IC	13:15	96		105		102		101		100	
ICV 240-336230/7	13:20	88		101		96		95		92	
ICB 240-336230/8	13:24	91		100		96		98		95	
ICVL 240-336230/9	13:29	96		102		96		98		98	
ICSA 240-336230/10	13:33	85		95		94		86		88	
ICSAB 240-336230/11	13:38	80		93		93		87		89	
ICSA 240-336230/148	00:38	76		100		102		92		96	
ICSAB 240-336230/149	00:42	74		98		101		91		94	
CCV 240-336230/155	01:09	78		98		101		94		96	
CCB 240-336230/156	01:14	83		98		103		98		100	
LCS 240-334389/3-A	01:45	77		92		96		92		95	
CCV 240-336230/167	02:03	86		95		96		90		96	
CCB 240-336230/168	02:07	86		98		97		96		96	
240-97969-2	02:12	78		89		94		86		89	
240-97969-2 SD	02:16	84		93		98		93		97	
240-97969-2 MS	02:25	72		94		91		90		94	
240-97969-2 MSD	02:30	71		92		92		86		92	
240-97969-2	02:38	86		95		95		88		92	
240-97969-3	02:43	80		93		92		86		91	
240-97969-4	02:47	81		92		93		85		91	
240-97969-4	02:52	80		91		94		85		91	
CCV 240-336230/179	02:56	83		95		92		89		95	
CCB 240-336230/180	03:01	86		94		95		92		98	
240-97969-5	03:05	77		90		90		81		88	
240-97969-5	03:10	76		90		90		83		88	
240-97969-6	03:14	77		89		91		85		89	
240-97969-6	03:19	76		90		92		85		91	
240-97969-7	03:23	79		90		90		85		89	
240-97969-7	03:27	79		91		90		84		91	
CCV 240-336230/187	03:32	82		95		95		89		93	
CCB 240-336230/188	03:36	87		95		96		93		97	
CCVL 240-336230/189	03:41	86		92		93		92		96	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/13/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336230/3 IC	13:02	98		95		99					
STD2 240-336230/4 IC	13:06	94		94		92					
STD3 240-336230/5 IC	13:11	91		90		89					
STD4 240-336230/6 IC	13:15	100		94		100					
ICV 240-336230/7	13:20	92		91		91					
ICB 240-336230/8	13:24	96		93		97					
ICVL 240-336230/9	13:29	96		95		98					
ICSA 240-336230/10	13:33	89		87		86					
ICSAB 240-336230/11	13:38	89		88		86					
ICSA 240-336230/148	00:38	93		92		99					
ICSAB 240-336230/149	00:42	93		89		98					
CCV 240-336230/155	01:09	94		93		101					
CCB 240-336230/156	01:14	95		94		105					
LCS 240-334389/3-A	01:45	92		92		102					
CCV 240-336230/167	02:03	92		91		100					
CCB 240-336230/168	02:07	93		90		105					
240-97969-2	02:12	93		89		98					
240-97969-2 SD	02:16	94		91		105					
240-97969-2 MS	02:25	98		97		101					
240-97969-2 MSD	02:30	96		94		97					
240-97969-2	02:38	96		94		99					
240-97969-3	02:43	91		90		95					
240-97969-4	02:47	89		88		96					
240-97969-4	02:52	89		88		95					
CCV 240-336230/179	02:56	93		91		102					
CCB 240-336230/180	03:01	92		90		103					
240-97969-5	03:05	88		86		93					
240-97969-5	03:10	87		85		92					
240-97969-6	03:14	92		89		96					
240-97969-6	03:19	91		89		97					
240-97969-7	03:23	95		94		97					
240-97969-7	03:27	95		94		97					
CCV 240-336230/187	03:32	92		89		98					
CCB 240-336230/188	03:36	92		92		102					
CCVL 240-336230/189	03:41	92		89		101					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/14/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336326/3 IC	09:59	95		101		99		100		103	
STD2 240-336326/4 IC	10:03	98		100		97		94		99	
STD3 240-336326/5 IC	10:08	97		103		97		93		96	
STD4 240-336326/6 IC	10:12	99		104		101		103		106	
ICV 240-336326/7	10:17	98		102		100		97		103	
ICB 240-336326/8	10:21	99		103		101		103		107	
ICVL 240-336326/9	10:26	99		104		100		101		108	
ICSA 240-336326/10	10:30	91		97		96		93		96	
ICSAB 240-336326/11	10:35	91		98		97		95		96	
CCV 240-336326/41	12:49	96		103		102		98		102	
CCB 240-336326/42	12:53	102		106		103		104		109	
LCS 240-334389/3-A	13:11	90		91		95		96		97	
240-97969-2	13:29	92		99		95		97		101	
240-97969-2 SD	13:33	96		99		100		99		104	
CCV 240-336326/53	13:42	95		102		101		100		104	
CCB 240-336326/54	13:47	99		104		103		104		109	
240-97969-2 MS	13:51	86		90		92		89		93	
240-97969-2 MSD	13:56	85		90		91		89		96	
240-97969-2	14:04	92		96		96		93		98	
240-97969-3	14:09	90		93		94		91		97	
240-97969-4	14:13	87		92		93		90		95	
240-97969-4	14:18	88		92		96		90		94	
240-97969-5	14:22	87		95		92		90		96	
240-97969-5	14:27	89		93		93		90		94	
240-97969-6	14:31	87		92		94		89		95	
CCV 240-336326/65	14:36	94		100		96		97		103	
CCB 240-336326/66	14:40	96		98		99		101		108	
240-97969-6	14:45	98		92		124		89		97	
240-97969-7	14:49	88		94		95		91		97	
240-97969-7	14:54	86		93		92		90		95	
CCV 240-336326/70	14:58	93		99		98		96		102	
CCB 240-336326/71	15:02	99		101		100		102		108	
CCVL 240-336326/72	15:07	100		101		99		102		107	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/14/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336326/3 IC	09:59	105		104		101					
STD2 240-336326/4 IC	10:03	101		100		96					
STD3 240-336326/5 IC	10:08	100		102		92					
STD4 240-336326/6 IC	10:12	107		106		101					
ICV 240-336326/7	10:17	104		102		97					
ICB 240-336326/8	10:21	106		102		103					
ICVL 240-336326/9	10:26	108		104		102					
ICSA 240-336326/10	10:30	100		99		92					
ICSAB 240-336326/11	10:35	102		101		93					
CCV 240-336326/41	12:49	101		101		95					
CCB 240-336326/42	12:53	106		105		100					
LCS 240-334389/3-A	13:11	105		104		97					
240-97969-2	13:29	111		111		99					
240-97969-2 SD	13:33	105		107		103					
CCV 240-336326/53	13:42	106		105		98					
CCB 240-336326/54	13:47	108		108		103					
240-97969-2 MS	13:51	102		101		92					
240-97969-2 MSD	13:56	103		102		93					
240-97969-2	14:04	107		106		95					
240-97969-3	14:09	102		102		92					
240-97969-4	14:13	100		101		91					
240-97969-4	14:18	101		101		92					
240-97969-5	14:22	102		101		91					
240-97969-5	14:27	102		100		94					
240-97969-6	14:31	105		102		92					
CCV 240-336326/65	14:36	105		105		97					
CCB 240-336326/66	14:40	108		106		101					
240-97969-6	14:45	105		104		92					
240-97969-7	14:49	110		108		94					
240-97969-7	14:54	110		107		92					
CCV 240-336326/70	14:58	105		104		98					
CCB 240-336326/71	15:02	107		106		105					
CCVL 240-336326/72	15:07	106		107		101					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/16/2018 End Date: 07/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336575/3 IC	09:30	97		97		97		95		98	
STD2 240-336575/4 IC	09:35	93		99		98		94		95	
STD3 240-336575/5 IC	09:39	93		97		100		92		93	
STD4 240-336575/6 IC	09:44	95		102		100		101		102	
ICV 240-336575/7	09:48	94		102		101		96		98	
ICB 240-336575/8	09:53	102		104		105		102		100	
ICSA 240-336575/10	10:02	92		97		98		90		93	
ICSAB 240-336575/11	10:06	90		99		99		93		93	
ICVL 240-336575/14	10:20	100		105		104		103		104	
CCV 240-336575/67	14:15	102		98		101		94		93	
CCB 240-336575/68	14:20	109		102		103		103		99	
240-97969-3	14:47	100		93		96		87		88	
CCV 240-336575/76	14:56	98		101		101		96		95	
CCB 240-336575/77	15:00	107		102		104		102		100	
CCVL 240-336575/78	15:05	112		104		104		102		100	
MB 240-334389/1-A	15:36	116		99		103		98		94	
CCV 240-336575/88	15:50	106		100		102		90		90	
CCB 240-336575/89	15:54	113		103		105		98		94	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/16/2018 End Date: 07/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336575/3 IC	09:30	99		102		97					
STD2 240-336575/4 IC	09:35	98		101		94					
STD3 240-336575/5 IC	09:39	97		98		90					
STD4 240-336575/6 IC	09:44	102		102		98					
ICV 240-336575/7	09:48	99		101		93					
ICB 240-336575/8	09:53	102		101		97					
ICSA 240-336575/10	10:02	95		97		90					
ICSAB 240-336575/11	10:06	97		99		91					
ICVL 240-336575/14	10:20	103		103		98					
CCV 240-336575/67	14:15	97		98		91					
CCB 240-336575/68	14:20	98		100		96					
240-97969-3	14:47	91		94		84					
CCV 240-336575/76	14:56	95		97		89					
CCB 240-336575/77	15:00	98		101		94					
CCVL 240-336575/78	15:05	99		98		92					
MB 240-334389/1-A	15:36	93		94		93					
CCV 240-336575/88	15:50	90		94		86					
CCB 240-336575/89	15:54	95		94		92					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334389 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAGSPIKEW 00084	MTICP1 00076	MTICP2A 00083	MTTMHCL 00208
MB 240-334389/1		3005A, 6010C		50 mL	50 mL				2.5 mL
LCS 240-334389/2		3005A, 6010C		50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-97969-P-2	MSA-MW-48D-062918	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-97969-P-2 MS	MSA-MW-48D-062918	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-97969-P-2 MSD	MSA-MW-48D-062918	3005A, 6010C	R	50 mL	50 mL	1 mL	1 mL	1 mL	2.5 mL
240-97969-P-3	MSA-MW-48I-062918	3005A, 6010C	R	50 mL	50 mL				2.5 mL
240-97969-S-4	MSA-MW-48S-062918	3005A, 6010C	R	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334389/1		3005A, 6010C		1 mL					
LCS 240-334389/2		3005A, 6010C		1 mL					
240-97969-P-2	MSA-MW-48D-062918	3005A, 6010C	R	1 mL					
240-97969-P-2 MS	MSA-MW-48D-062918	3005A, 6010C	R	1 mL					
240-97969-P-2 MSD	MSA-MW-48D-062918	3005A, 6010C	R	1 mL					
240-97969-P-3	MSA-MW-48I-062918	3005A, 6010C	R	1 mL					
240-97969-S-4	MSA-MW-48S-062918	3005A, 6010C	R	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334389 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb2
Pipette/Syringe/Dispenser ID	mp1, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334114 Batch Start Date: 06/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/29/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00207
MB 240-334114/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-334114/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97836-G-2	MSA-MW-51D-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-2	MSA-MW-51D-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-3	MSA-MW-51I-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-3	MSA-MW-51I-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-K-4	MSA-MW-51S-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-L-4	MSA-MW-51S-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-K-5	MSA-MW-47S-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-L-5	MSA-MW-47S-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-6	MSA-MW-47I-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-6	MSA-MW-47I-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-7	MSA-MW-47D-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-7	MSA-MW-47D-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334114/1		3005A, 6020A		1 mL					
LCS 240-334114/2		3005A, 6020A		1 mL					
240-97836-G-2	MSA-MW-51D-062718	3005A, 6020A	R	1 mL					
240-97836-H-2	MSA-MW-51D-062718	3005A, 6020A	D	1 mL					
240-97836-G-3	MSA-MW-51I-062718	3005A, 6020A	R	1 mL					
240-97836-H-3	MSA-MW-51I-062718	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334114 Batch Start Date: 06/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/29/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97836-K-4	MSA-MW-51S-062718	3005A, 6020A	R	1 mL					
240-97836-L-4	MSA-MW-51S-062718	3005A, 6020A	D	1 mL					
240-97836-K-5	MSA-MW-47S-062718	3005A, 6020A	R	1 mL					
240-97836-L-5	MSA-MW-47S-062718	3005A, 6020A	D	1 mL					
240-97836-G-6	MSA-MW-47I-062718	3005A, 6020A	R	1 mL					
240-97836-H-6	MSA-MW-47I-062718	3005A, 6020A	D	1 mL					
240-97836-G-7	MSA-MW-47D-062718	3005A, 6020A	R	1 mL					
240-97836-H-7	MSA-MW-47D-062718	3005A, 6020A	D	1 mL					

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb1
Pipette/Syringe/Dispenser ID	mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334363 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00208
MB 240-334363/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-334363/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97912-H-2	MSA-MW-49D-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97912-G-2	MSA-MW-49D-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-G-3	MSA-MW-49I-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-H-3	MSA-MW-49I-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97912-I-4	MSA-MW-49S-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-J-4	MSA-MW-49S-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97912-I-5	MSA-MW-46S-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-J-5	MSA-MW-46S-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97912-G-6	MSA-MW-46I-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-H-6	MSA-MW-46I-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97912-G-7	MSA-MW-46D-062818	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97912-H-7	MSA-MW-46D-062818	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334363/1		3005A, 6020A		1 mL					
LCS 240-334363/3		3005A, 6020A		1 mL					
240-97912-H-2	MSA-MW-49D-062818	3005A, 6020A	D	1 mL					
240-97912-G-2	MSA-MW-49D-062818	3005A, 6020A	R	1 mL					
240-97912-G-3	MSA-MW-49I-062818	3005A, 6020A	R	1 mL					
240-97912-H-3	MSA-MW-49I-062818	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334363 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97912-I-4	MSA-MW-49S-062818	3005A, 6020A	R	1 mL					
240-97912-J-4	MSA-MW-49S-062818	3005A, 6020A	D	1 mL					
240-97912-I-5	MSA-MW-46S-062818	3005A, 6020A	R	1 mL					
240-97912-J-5	MSA-MW-46S-062818	3005A, 6020A	D	1 mL					
240-97912-G-6	MSA-MW-46I-062818	3005A, 6020A	R	1 mL					
240-97912-H-6	MSA-MW-46I-062818	3005A, 6020A	D	1 mL					
240-97912-G-7	MSA-MW-46D-062818	3005A, 6020A	R	1 mL					
240-97912-H-7	MSA-MW-46D-062818	3005A, 6020A	D	1 mL					

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb0
Pipette/Syringe/Dispenser ID	mp1, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334389 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00208
MB 240-334389/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-334389/3		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97969-P-2	MSA-MW-48D-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-P-2 MS	MSA-MW-48D-062918	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97969-P-2 MSD	MSA-MW-48D-062918	3005A, 6020A	R	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97969-Q-2	MSA-MW-48D-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97969-P-3	MSA-MW-48I-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-Q-3	MSA-MW-48I-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97969-S-4	MSA-MW-48S-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-U-4	MSA-MW-48S-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97969-J-5	DMW-4S-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-K-5	DMW-4S-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97969-G-6	DMW-4I-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-H-6	DMW-4I-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97969-G-7	DMW-4D-062918	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97969-H-7	DMW-4D-062918	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334389/1		3005A, 6020A		1 mL					
LCS 240-334389/3		3005A, 6020A		1 mL					
240-97969-P-2	MSA-MW-48D-062918	3005A, 6020A	R	1 mL					
240-97969-P-2 MS	MSA-MW-48D-062918	3005A, 6020A	R	1 mL					
240-97969-P-2 MSD	MSA-MW-48D-062918	3005A, 6020A	R	1 mL					
240-97969-Q-2	MSA-MW-48D-062918	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334389 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 07/02/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97969-P-3	MSA-MW-48I-062918	3005A, 6020A	R	1 mL					
240-97969-Q-3	MSA-MW-48I-062918	3005A, 6020A	D	1 mL					
240-97969-S-4	MSA-MW-48S-062918	3005A, 6020A	R	1 mL					
240-97969-U-4	MSA-MW-48S-062918	3005A, 6020A	D	1 mL					
240-97969-J-5	DMW-4S-062918	3005A, 6020A	R	1 mL					
240-97969-K-5	DMW-4S-062918	3005A, 6020A	D	1 mL					
240-97969-G-6	DMW-4I-062918	3005A, 6020A	R	1 mL					
240-97969-H-6	DMW-4I-062918	3005A, 6020A	D	1 mL					
240-97969-G-7	DMW-4D-062918	3005A, 6020A	R	1 mL					
240-97969-H-7	DMW-4D-062918	3005A, 6020A	D	1 mL					

Batch Notes	
Batch Comment	filter paper 70602101
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	hb2
Pipette/Syringe/Dispenser ID	mp1, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1802043
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
R	Total Recoverable
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334117 Batch Start Date: 06/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/29/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00085	MTH2S04 00058	MTHGCALW 01861	MTKMN04W 00164
MB 240-334117/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-334117/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-97836-G-2	MSA-MW-51D-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-H-2	MSA-MW-51D-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-G-3	MSA-MW-51I-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-H-3	MSA-MW-51I-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-K-4	MSA-MW-51S-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-L-4	MSA-MW-51S-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-K-5	MSA-MW-47S-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-L-5	MSA-MW-47S-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-G-6	MSA-MW-47I-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-H-6	MSA-MW-47I-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-G-7	MSA-MW-47D-062718	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97836-H-7	MSA-MW-47D-062718	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334117/1		7470A, 7470A		1.25 mL					
LCS 240-334117/2		7470A, 7470A		1.25 mL					
240-97836-G-2	MSA-MW-51D-062718	7470A, 7470A	T	1.25 mL					
240-97836-H-2	MSA-MW-51D-062718	7470A, 7470A	D	1.25 mL					
240-97836-G-3	MSA-MW-51I-062718	7470A, 7470A	T	1.25 mL					
240-97836-H-3	MSA-MW-51I-062718	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334117 Batch Start Date: 06/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 06/29/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97836-K-4	MSA-MW-51S-062718	7470A, 7470A	T	1.25 mL					
240-97836-L-4	MSA-MW-51S-062718	7470A, 7470A	D	1.25 mL					
240-97836-K-5	MSA-MW-47S-062718	7470A, 7470A	T	1.25 mL					
240-97836-L-5	MSA-MW-47S-062718	7470A, 7470A	D	1.25 mL					
240-97836-G-6	MSA-MW-47I-062718	7470A, 7470A	T	1.25 mL					
240-97836-H-6	MSA-MW-47I-062718	7470A, 7470A	D	1.25 mL					
240-97836-G-7	MSA-MW-47D-062718	7470A, 7470A	T	1.25 mL					
240-97836-H-7	MSA-MW-47D-062718	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334365 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 07/02/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00085	MTH2S04 00058	MTHGCALW 01862	MTKMN04W 00164
MB 240-334365/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-334365/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-97912-H-2	MSA-MW-49D-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-G-2	MSA-MW-49D-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-G-3	MSA-MW-49I-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-H-3	MSA-MW-49I-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-I-4	MSA-MW-49S-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-J-4	MSA-MW-49S-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-I-5	MSA-MW-46S-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-J-5	MSA-MW-46S-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-G-6	MSA-MW-46I-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-H-6	MSA-MW-46I-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-G-7	MSA-MW-46D-062818	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97912-H-7	MSA-MW-46D-062818	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334365/1		7470A, 7470A		1.25 mL					
LCS 240-334365/2		7470A, 7470A		1.25 mL					
240-97912-H-2	MSA-MW-49D-062818	7470A, 7470A	D	1.25 mL					
240-97912-G-2	MSA-MW-49D-062818	7470A, 7470A	T	1.25 mL					
240-97912-G-3	MSA-MW-49I-062818	7470A, 7470A	T	1.25 mL					
240-97912-H-3	MSA-MW-49I-062818	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334365 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 07/02/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97912-I-4	MSA-MW-49S-062818	7470A, 7470A	T	1.25 mL					
240-97912-J-4	MSA-MW-49S-062818	7470A, 7470A	D	1.25 mL					
240-97912-I-5	MSA-MW-46S-062818	7470A, 7470A	T	1.25 mL					
240-97912-J-5	MSA-MW-46S-062818	7470A, 7470A	D	1.25 mL					
240-97912-G-6	MSA-MW-46I-062818	7470A, 7470A	T	1.25 mL					
240-97912-H-6	MSA-MW-46I-062818	7470A, 7470A	D	1.25 mL					
240-97912-G-7	MSA-MW-46D-062818	7470A, 7470A	T	1.25 mL					
240-97912-H-7	MSA-MW-46D-062818	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c1
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334390 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 07/02/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00085	MTH2S04 00058	MTHGCALW 01862	MTKMN04W 00164
MB 240-334390/1		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		7.5 mL
LCS 240-334390/2		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	7.5 mL
240-97969-P-2	MSA-MW-48D-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-P-2 MS	MSA-MW-48D-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-97969-P-2 MSD	MSA-MW-48D-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL	0.5 mL	7.5 mL
240-97969-Q-2	MSA-MW-48D-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-P-3	MSA-MW-48I-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-Q-3	MSA-MW-48I-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-S-4	MSA-MW-48S-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-U-4	MSA-MW-48S-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-J-5	DMW-4S-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-K-5	DMW-4S-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-G-6	DMW-4I-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-H-6	DMW-4I-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-G-7	DMW-4D-062918	7470A, 7470A	T	50 mL	50 mL	4 mL	2.5 mL		7.5 mL
240-97969-H-7	DMW-4D-062918	7470A, 7470A	D	50 mL	50 mL	4 mL	2.5 mL		7.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334390/1		7470A, 7470A		1.25 mL					
LCS 240-334390/2		7470A, 7470A		1.25 mL					
240-97969-P-2	MSA-MW-48D-062918	7470A, 7470A	T	1.25 mL					
240-97969-P-2 MS	MSA-MW-48D-062918	7470A, 7470A	T	1.25 mL					
240-97969-P-2 MSD	MSA-MW-48D-062918	7470A, 7470A	T	1.25 mL					
240-97969-Q-2	MSA-MW-48D-062918	7470A, 7470A	D	1.25 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334390 Batch Start Date: 07/02/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 7470A Batch End Date: 07/02/18 16:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
240-97969-P-3	MSA-MW-48I-062918	7470A, 7470A	T	1.25 mL					
240-97969-Q-3	MSA-MW-48I-062918	7470A, 7470A	D	1.25 mL					
240-97969-S-4	MSA-MW-48S-062918	7470A, 7470A	T	1.25 mL					
240-97969-U-4	MSA-MW-48S-062918	7470A, 7470A	D	1.25 mL					
240-97969-J-5	DMW-4S-062918	7470A, 7470A	T	1.25 mL					
240-97969-K-5	DMW-4S-062918	7470A, 7470A	D	1.25 mL					
240-97969-G-6	DMW-4I-062918	7470A, 7470A	T	1.25 mL					
240-97969-H-6	DMW-4I-062918	7470A, 7470A	D	1.25 mL					
240-97969-G-7	DMW-4D-062918	7470A, 7470A	T	1.25 mL					
240-97969-H-7	DMW-4D-062918	7470A, 7470A	D	1.25 mL					

Batch Notes	
Batch Comment	take out temps in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	c2
Pipette/Syringe/Dispenser ID	mp2, mp3
Thermometer ID	temp log
Digestion Tube/Cup ID	1712272
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description
T	Total/NA
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334525 Batch Start Date: 07/02/18 08:30 Batch Analyst: Colosi, Alexander J

Batch Method: 7470A Batch End Date: 07/02/18 10:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	K2S2O8 00085	MTH2S04 00058	MTHGCALW 01862	MTHgICV_00001 00361
ICV 240-334525/7		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		2.5 mL
ICB 240-334525/8		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		
CRA 240-334525/9		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	0.1 mL	
CCV 240-334525/10		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL	2.5 mL	
CCB 240-334525/11		7470A, 7470A		50 mL	50 mL	4 mL	2.5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTKMN04W 00164	MTTMHNO3 00158				
ICV 240-334525/7		7470A, 7470A		7.5 mL	1.25 mL				
ICB 240-334525/8		7470A, 7470A		7.5 mL	1.25 mL				
CRA 240-334525/9		7470A, 7470A		7.5 mL	1.25 mL				
CCV 240-334525/10		7470A, 7470A		7.5 mL	1.25 mL				
CCB 240-334525/11		7470A, 7470A		7.5 mL	1.25 mL				

Batch Notes	
Batch Comment	take out temp in range
Temperature - Corrected - End	temp log Degrees C
Temperature - Corrected - Start	temp log Degrees C
Digestion Unit ID	B1
Pipette/Syringe/Dispenser ID	L7, MP1, MP2
Digestion Tube/Cup ID	1705110
Temperature - Uncorrected - End	temp log Degrees C
Temperature - Uncorrected - Start	temp log Degrees C

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

US EPA Tune Check Sample Report

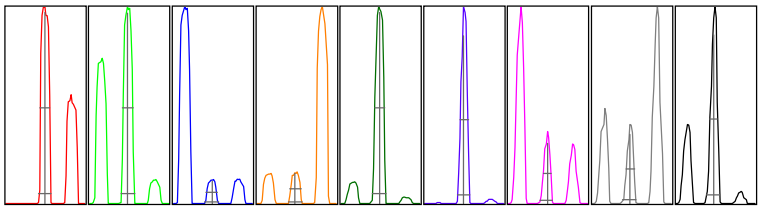
Batch Folder D:\Analytical Runs\I10070218A.b
Report Comment
Instrument Name I10 JP12452145

[NoGas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	11582	0.86	5.00	
24	52905	0.82	5.00	
25	6089	1.06	5.00	
26	6480	1.27	5.00	
59	23700	0.54	5.00	
115	29093	0.49	5.00	
206	7277	1.14	5.00	
207	6422	1.52	5.00	
208	15754	0.85	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	11606	11466	11714	11500	11625
24	53404	53316	52784	52589	52430
25	6132	6143	6127	5999	6041
26	6554	6503	6478	6524	6341
59	23790	23490	23814	23708	23699
115	29095	29258	28954	29209	28948
206	7376	7327	7166	7289	7225
207	6392	6491	6291	6394	6542
208	15833	15787	15572	15670	15908

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	3151	9.00	8.9 - 9.1		0.461	0.850	
24	13756	23.95	23.9 - 24.1		0.531	0.850	
25	1624	25.00	24.9 - 25.1		0.510	0.850	
26	1683	25.95	25.9 - 26.1		0.522	0.850	
59	6392	59.00	58.9 - 59.1		0.528	0.850	
115	8895	115.00	114.9 - 115.1		0.481	0.850	
206	2221	206.00	205.9 - 206.1		0.486	0.850	
207	1926	206.95	206.9 - 207.1		0.499	0.850	
208	4717	207.95	207.9 - 208.1		0.508	0.850	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 212.5 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.45	L/min	S/C Temp	2	℃
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.55	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.9	V	Deflect	20.0	V
Extract 2	-160.0	V	Cell Entrance	-50	V	Plate Bias	-90	V
Omega Bias	-95	V	Cell Exit	-90	V			

Cell Parameters

US EPA Tune Check Sample Report

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	6.0	V
ParameterName	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**
He Flow	0.0	mL/min	OctP Bias	-10.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

US EPA Tune Check Sample Report

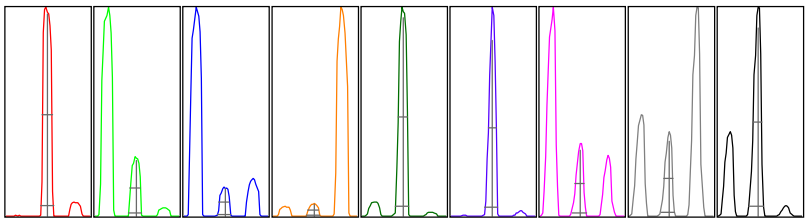
Batch Folder D:\Analytical Runs\I10070318A.b
Report Comment
Instrument Name I10 JP12452145

[NoGas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	23849	1.18	5.00	
24	52547	0.55	5.00	
25	7352	1.11	5.00	
26	9654	0.41	5.00	
59	67570	1.07	5.00	
115	63710	0.32	5.00	
206	11316	1.06	5.00	
207	9298	0.52	5.00	
208	23569	0.60	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	24066	23784	23949	23389	24058
24	52467	52621	52186	52485	52975
25	7431	7435	7267	7272	7357
26	9674	9637	9702	9596	9663
59	67038	68702	66848	67592	67668
115	63364	63798	63703	63864	63821
206	11299	11399	11268	11463	11152
207	9257	9274	9369	9264	9327
208	23507	23521	23609	23788	23418

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	6790	9.00	8.9 - 9.1		0.465	0.850	
24	13939	24.00	23.9 - 24.1		0.490	0.850	
25	1952	25.00	24.9 - 25.1		0.488	0.850	
26	2508	26.00	25.9 - 26.1		0.493	0.850	
59	18913	59.00	58.9 - 59.1		0.488	0.850	
115	19881	115.00	114.9 - 115.1		0.469	0.850	
206	3381	205.95	205.9 - 206.1		0.525	0.850	
207	2769	206.95	206.9 - 207.1		0.504	0.850	
208	6951	207.95	207.9 - 208.1		0.506	0.850	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 212.5 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.45	L/min	S/C Temp	2	℃
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.55	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	20.0	V
Extract 2	-180.0	V	Cell Entrance	-50	V	Plate Bias	-90	V
Omega Bias	-100	V	Cell Exit	-90	V			

Cell Parameters

US EPA Tune Check Sample Report

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	6.0	V
ParameterName	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**
He Flow	0.0	mL/min	OctP Bias	-10.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

US EPA Tune Check Sample Report

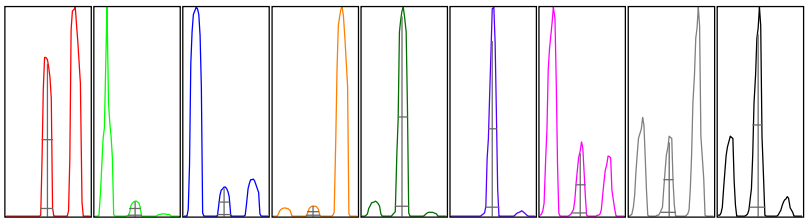
Batch Folder D:\Analytical Runs\I10071318A.b
Report Comment
Instrument Name I10 JP12452145

[NoGas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	34401	1.05	5.00	
24	72200	0.59	5.00	
25	10044	1.04	5.00	
26	13007	0.90	5.00	
59	133927	0.57	5.00	
115	109415	0.75	5.00	
206	16753	0.85	5.00	
207	14392	1.00	5.00	
208	35663	0.76	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	34124	34630	34063	34276	34910
24	71690	72774	72244	72387	71904
25	10003	10139	10091	10106	9880
26	12922	13213	12969	12946	12987
59	135002	133602	133920	132924	134187
115	110815	109289	109132	108667	109170
206	16870	16855	16562	16841	16639
207	14505	14285	14369	14573	14231
208	36114	35482	35585	35698	35434

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	9793	9.00	8.9 - 9.1		0.446	0.850	
24	18985	23.95	23.9 - 24.1		0.493	0.850	
25	2609	24.95	24.9 - 25.1		0.492	0.850	
26	3355	25.95	25.9 - 26.1		0.503	0.850	
59	36558	58.95	58.9 - 59.1		0.492	0.850	
115	33221	115.00	114.9 - 115.1		0.488	0.850	
206	4813	205.95	205.9 - 206.1		0.527	0.850	
207	4233	206.95	206.9 - 207.1		0.527	0.850	
208	10480	207.95	207.9 - 208.1		0.530	0.850	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 212.5 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.45	L/min	S/C Temp	2	℃
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.55	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.3	V	Deflect	20.0	V
Extract 2	-200.0	V	Cell Entrance	-50	V	Plate Bias	-90	V
Omega Bias	-100	V	Cell Exit	-90	V			

Cell Parameters

US EPA Tune Check Sample Report

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	6.0	V
ParameterName	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**
He Flow	0.0	mL/min	OctP Bias	-10.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

US EPA Tune Check Sample Report

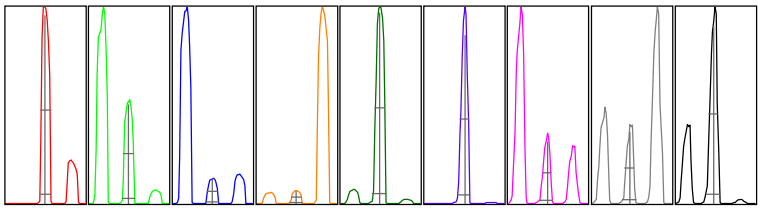
Batch Folder D:\Analytical Runs\I10071418A.b
Report Comment
Instrument Name I10 JP12452145

[NoGas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	34293	0.34	5.00	
24	107839	1.70	5.00	
25	14035	1.55	5.00	
26	16379	1.58	5.00	
59	128754	0.39	5.00	
115	119574	0.79	5.00	
206	20630	0.83	5.00	
207	17398	0.97	5.00	
208	44136	1.00	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	34354	34463	34160	34223	34266
24	105637	108699	109911	108756	106194
25	13692	14223	14176	14134	13950
26	16133	16329	16648	16649	16137
59	129007	128872	128270	128223	129397
115	120824	119213	120308	118618	118908
206	20769	20747	20344	20617	20674
207	17456	17478	17243	17605	17208
208	44700	44055	43951	44419	43555

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	9943	9.00	8.9 - 9.1		0.441	0.850	
24	28461	24.00	23.9 - 24.1		0.491	0.850	
25	3654	25.00	24.9 - 25.1		0.492	0.850	
26	4283	26.00	25.9 - 26.1		0.495	0.850	
59	34320	59.00	58.9 - 59.1		0.510	0.850	
115	36065	115.05	114.9 - 115.1		0.485	0.850	
206	6014	206.00	205.9 - 206.1		0.500	0.850	
207	5128	206.95	206.9 - 207.1		0.515	0.850	
208	12838	207.95	207.9 - 208.1		0.529	0.850	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 212.5 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.45	L/min	S/C Temp	2	℃
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.55	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.2	V	Deflect	20.0	V
Extract 2	-190.0	V	Cell Entrance	-50	V	Plate Bias	-90	V
Omega Bias	-105	V	Cell Exit	-90	V			

Cell Parameters

US EPA Tune Check Sample Report

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	6.0	V
ParameterName	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**
He Flow	0.0	mL/min	OctP Bias	-10.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

US EPA Tune Check Sample Report

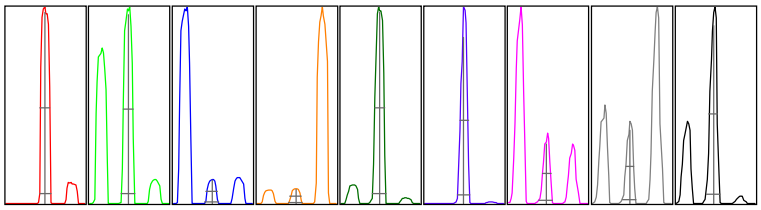
Batch Folder D:\Analytical Runs\I10071618A.b
Report Comment
Instrument Name I10 JP12452145

[NoGas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	38711	0.84	5.00	
24	130354	0.72	5.00	
25	15401	0.68	5.00	
26	17197	1.00	5.00	
59	108612	0.73	5.00	
115	103530	0.69	5.00	
206	18408	1.10	5.00	
207	16054	1.41	5.00	
208	38852	1.46	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	39074	38949	38753	38270	38509
24	129782	131840	130509	130240	129400
25	15276	15413	15438	15549	15329
26	17048	17484	17220	17092	17143
59	109583	109198	107730	107921	108628
115	103951	104120	102941	104060	102577
206	18747	18338	18330	18415	18211
207	16079	16431	15980	15931	15849
208	39568	38568	39331	38242	38548

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	10579	9.00	8.9 - 9.1		0.447	0.850	
24	33692	24.00	23.9 - 24.1		0.530	0.850	
25	4114	25.00	24.9 - 25.1		0.509	0.850	
26	4504	26.00	25.9 - 26.1		0.525	0.850	
59	28927	59.00	58.9 - 59.1		0.533	0.850	
115	31357	115.00	114.9 - 115.1		0.484	0.850	
206	5359	205.95	205.9 - 206.1		0.517	0.850	
207	4776	206.95	206.9 - 207.1		0.526	0.850	
208	11560	207.95	207.9 - 208.1		0.525	0.850	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 212.5 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.45	L/min	S/C Temp	2	℃
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.55	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.9	V	Deflect	20.0	V
Extract 2	-175.0	V	Cell Entrance	-50	V	Plate Bias	-90	V
Omega Bias	-115	V	Cell Exit	-90	V			

Cell Parameters

US EPA Tune Check Sample Report

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	6.0	V
ParameterName	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**	**ParameterName**	**Value**	**Unit**
He Flow	0.0	mL/min	OctP Bias	-10.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-3657169
Data File Name	019_CCV.d
Data Path Name	D:\Analytical Runs\I10070218B.b
Acq Date Time	2018-07-02T12:31:39-04:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	45	2	NoGas	48.560	1.518	536898	0.31	50	97.1	89.5	110.5	
Be	9	6	2	NoGas	50.285	1.804	141466	1.17	50	100.6	89.5	110.5	
B	11	45	2	NoGas	52.613	2.128	100401	0.40	50	105.2	89.5	110.5	
Na	23	45	1	He	25287.927	0.654	10173383	0.55	25000	101.2	89.5	110.5	
Mg	24	45	1	He	25208.129	2.108	5291517	1.09	25000	100.8	89.5	110.5	
Al	27	45	1	He	244.581	0.916	25960	1.76	250	97.8	89.5	110.5	
K	39	45	1	He	24952.928	1.620	6645829	0.69	25000	99.8	89.5	110.5	
Ca	44	45	1	He	25126.518	0.730	156956	0.38	25000	100.5	89.5	110.5	
Ti	47	45	1	He	49.126	1.923	3729	1.02	50	98.3	89.5	110.5	
V	51	45	1	He	50.945	0.943	105329	1.10	50	101.9	89.5	110.5	
Cr	52	45	1	He	51.382	1.461	112408	0.67	50	102.8	89.5	110.5	
Mn	55	45	1	He	253.017	1.042	379250	0.40	250	101.2	89.5	110.5	
Fe	56	45	1	He	12657.199	2.145	24833476	1.12	12500	101.3	89.5	110.5	
Co	59	45	1	He	50.932	0.815	151256	0.43	50	101.9	89.5	110.5	
Ni	60	45	1	He	50.981	2.593	38676	2.40	50	102.0	89.5	110.5	
Cu	63	45	1	He	51.463	0.326	102373	0.71	50	102.9	89.5	110.5	
Zn	66	45	1	He	51.280	2.339	20768	1.28	50	102.6	89.5	110.5	
As	75	159	1	He	52.152	0.898	16950	2.04	50	104.3	89.5	110.5	
Se	78	45	1	He	49.976	3.307	1479	2.22	50	100.0	89.5	110.5	
Sr	88	159	1	He	52.193	1.307	114088	0.19	50	104.4	89.5	110.5	
Mo	95	103	1	He	51.578	2.504	54637	2.31	50	103.2	89.5	110.5	
Ag	107	103	1	He	50.390	0.223	145764	0.77	50	100.8	89.5	110.5	
Cd	111	115	1	He	50.005	0.968	22462	0.51	50	100.0	89.5	110.5	
Sn	118	115	1	He	49.833	1.536	60907	1.35	50	99.7	89.5	110.5	
Sb	123	115	1	He	50.346	1.866	66987	1.18	50	100.7	89.5	110.5	
Ba	137	115	1	He	49.786	1.789	26757	2.27	50	99.6	89.5	110.5	
W	182	159	1	He	50.902	1.293	102484	0.66	50	101.8	89.5	110.5	
Tl	205	165	1	He	51.237	1.643	250590	0.67	50	102.5	89.5	110.5	
Pb	208	165	1	He	51.318	1.098	330514	0.08	50	102.6	89.5	110.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1345640	0.64	1415919	95.04	60	120	
Sc	45	1	He	555852	1.02	558614	99.51	60	120	
Sc	45	2	NoGas	5856539	1.47	5751185	101.83	60	120	
Rh	103	1	He	1257263	0.58	1325191	94.87	60	120	
In	115	1	He	785261	0.70	840444	93.43	60	120	
Tb	159	1	He	1751063	1.43	1867288	93.78	60	120	
Ho	165	1	He	1606816	1.01	1716494	93.61	60	120	
Bi	209	1	He	1053014	0.47	1136412	92.66	60	120	

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Sample Calculations - Page 2

Client Sample ID: MSA-MW-51D-062718 Lab Sample ID: 240-97836-2

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG ID.:

Matrix: Water Date Sampled: 06/27/2018 09:55

Reporting Basis: WET Date Received: 06/28/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.66	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	1.2	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	5.6	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.50	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.8	2.0	1.7	ug/L	J	B	1	6020A
7439-89-6	Iron	200	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.9	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.31	1.0	0.053	ug/L	J		1	6020A

Sample Calc

1.187 x 50 /50 x 1 = 1.187 ug/L

METALS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334114 Batch Start Date: 06/29/18 14:00 Batch Analyst: Butke, Michael

Batch Method: 3005A Batch End Date: 06/29/18 22:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTICPMS2 00033	MTICPMSA 00035	MTICPMSB 00035	MTTMHCL 00207
MB 240-334114/1		3005A, 6020A		50 mL	50 mL				2.5 mL
LCS 240-334114/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	2.5 mL
240-97836-G-2	MSA-MW-51D-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-2	MSA-MW-51D-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-3	MSA-MW-51I-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-3	MSA-MW-51I-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-K-4	MSA-MW-51S-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-L-4	MSA-MW-51S-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-K-5	MSA-MW-47S-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-L-5	MSA-MW-47S-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-6	MSA-MW-47I-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-6	MSA-MW-47I-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL
240-97836-G-7	MSA-MW-47D-062718	3005A, 6020A	R	50 mL	50 mL				2.5 mL
240-97836-H-7	MSA-MW-47D-062718	3005A, 6020A	D	50 mL	50 mL				2.5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MTTMHNO3 00158					
MB 240-334114/1		3005A, 6020A		1 mL					
LCS 240-334114/2		3005A, 6020A		1 mL					
240-97836-G-2	MSA-MW-51D-062718	3005A, 6020A	R	1 mL					
240-97836-H-2	MSA-MW-51D-062718	3005A, 6020A	D	1 mL					
240-97836-G-3	MSA-MW-51I-062718	3005A, 6020A	R	1 mL					
240-97836-H-3	MSA-MW-51I-062718	3005A, 6020A	D	1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Sample Report

Sample Table

Sample Name	240-97836-g-2-a
Data File Name	029SMPL.d
Data Path Name	D:\Analytical Runs\I10070218B.b
Acq Date Time	2018-07-02T13:16:32-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	37.089	37.089	0.90	404754	0.01	10000	
Be	9	6	2	NoGas	0.495	0.495	3.43	1906	0.03	2000	
B	11	45	2	NoGas	67.989	67.989	1.23	110576	0.06	300	
Na	23	45	1	He	90462.298	90462.298	2.09	33571647	0.27	500000	
Mg	24	45	1	He	22919.607	22919.607	2.88	4443076	0.52	500000	
Al	27	45	1	He	29.969	29.969	6.27	3188	0.94	200000	
K	39	45	1	He	10117.881	10117.881	1.28	2504725	0.40	500000	
Ca	44	45	1	He	36356.971	36356.971	2.31	209626	17.34	500000	
Ti	47	45	1	He	0.310	0.310	45.34	27	1.15	2500	
V	51	45	1	He	0.206	0.206	161.64	673	0.03	10000	
Cr	52	45	1	He	0.577	0.577	7.93	1393	0.04	10000	
Mn	55	45	1	He	1398.447	1398.447	2.59	1933856	0.07	10000	
Fe	56	45	1	He	204.340	204.340	2.56	376962	0.05	200000	
Co	59	45	1	He	1.900	1.900	3.36	5294	0.04	5000	
Ni	60	45	1	He	1.867	1.867	4.00	1540	0.12	10000	
Cu	63	45	1	He	1.795	1.795	3.17	3735	0.05	10000	
Zn	66	45	1	He	10.879	10.879	1.67	4245	0.26	10000	
As	75	159	1	He	1.187	1.187	31.57	463	0.26	10000	
Se	78	45	1	He	0.530	0.530	61.31	101	0.52	10000	
Sr	88	159	1	He	466.254	466.254	5.28	948554	0.05	10000	
Mo	95	103	1	He	0.114	0.114	28.13	152	0.07	2000	
Ag	107	103	1	He	0.305	0.305	9.17	819	0.04	100	
Cd	111	115	1	He	0.180	0.180	10.38	89	0.20	4000	
Sn	118	115	1	He	1.021	1.021	7.34	1447	0.07	2000	
Sb	123	115	1	He	0.659	0.659	1.16	880	0.07	200	
Ba	137	115	1	He	5.575	5.575	6.05	2751	0.20	10000	
W	182	159	1	He	0.225	0.225	38.24	680	0.03	2500	
Tl	205	165	1	He	0.044	0.044	17.45	278	0.02	2000	
Pb	208	165	1	He	0.104	0.104	31.78	1394	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	1239071	1.60	1415919	87.51	60	120	
Sc	45	1	He	513437	3.03	558614	91.91	60	120	
Sc	45	2	NoGas	5424064	0.78	5751185	94.31	60	120	
Rh	103	1	He	1155754	3.48	1325191	87.21	60	120	
In	115	1	He	718030	2.44	840444	85.43	60	120	
Tb	159	1	He	1633071	4.34	1867288	87.46	60	120	
Ho	165	1	He	1463723	7.19	1716494	85.27	60	120	
Bi	209	1	He	967523	3.75	1136412	85.14	60	120	

Method 6850

Perchlorate by LC/MS or LC/MS/MS by Method 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab File ID: Perc_07062018A_045.d Lab Sample ID: MB 320-232133/1-A

Matrix: Water Date Extracted: 07/02/2018 15:46

Instrument ID: A5 Date Analyzed: 07/11/2018 05:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-232133/2-A	Perc_07062018A_046.d	07/11/2018 05:25
MSA-MW-51D-062718	240-97836-2	Perc_07062018A_054.d	07/11/2018 07:12
MSA-MW-51I-062718	240-97836-3	Perc_07062018A_057.d	07/11/2018 07:52
MSA-MW-51S-062718	240-97836-4	Perc_07062018A_058.d	07/11/2018 08:05
MSA-MW-47S-062718	240-97836-5	Perc_07062018A_059.d	07/11/2018 08:18
MSA-MW-47I-062718	240-97836-6	Perc_07062018A_060.d	07/11/2018 08:31
MSA-MW-47D-062718	240-97836-7	Perc_07062018A_062.d	07/11/2018 08:58
MSA-MW-49D-062818	240-97912-2	Perc_07062018A_063.d	07/11/2018 09:11
MSA-MW-49I-062818	240-97912-3	Perc_07062018A_064.d	07/11/2018 09:25
MSA-MW-49S-062818	240-97912-4	Perc_07062018A_065.d	07/11/2018 09:38
MSA-MW-46S-062818	240-97912-5	Perc_07062018A_068.d	07/11/2018 10:18
MSA-MW-46I-062818	240-97912-6	Perc_07062018A_069.d	07/11/2018 10:31
MSA-MW-46D-062818	240-97912-7	Perc_07062018A_070.d	07/11/2018 10:45

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-232133/1-A

Matrix: Water Lab File ID: Perc_07062018A_045.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 05:12

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_046.d

Lab ID: LCS 320-232133/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.11	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_047.d

Lab ID: INF 320-232133/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.10	102	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab File ID: Perc_07062018A_019.d Lab Sample ID: MB 320-232586/1-A

Matrix: Water Date Extracted: 07/05/2018 13:14

Instrument ID: A5 Date Analyzed: 07/10/2018 23:26

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-232586/2-A	Perc_07062018A_020.d	07/10/2018 23:39
MSA-MW-48D-062918	240-97969-2	Perc_07062018A_025.d	07/11/2018 00:45
MSA-MW-48I-062918	240-97969-3	Perc_07062018A_026.d	07/11/2018 00:59
MSA-MW-48S-062918	240-97969-4	Perc_07062018A_027.d	07/11/2018 01:12
DMW-4I-062918	240-97969-6	Perc_07062018A_028.d	07/11/2018 01:25
DMW-4D-062918	240-97969-7	Perc_07062018A_031.d	07/11/2018 02:05

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-232586/1-A

Matrix: Water Lab File ID: Perc_07062018A_019.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/05/2018 13:14

Sample wt/vol: 4.00(mL) Date Analyzed: 07/10/2018 23:26

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_020.d

Lab ID: LCS 320-232586/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.40	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_021.d

Lab ID: INF 320-232586/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.54	111	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/20/2018 15:19

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		25625186	8.94				
UPPER LIMIT		38437779	9.94				
LOWER LIMIT		12812593	7.94				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-230099/13		25609406	9.00				
ICV 320-230099/14		25363165	9.00				
CCVIS 320-233388/1		31630205	9.35				
CCVIS 320-233402/1		30797338	9.40				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 320-233388/1 Date Analyzed: 07/10/2018 22:46

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07062018AX_016 Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		31630205	9.35				
UPPER LIMIT		47445308	10.35				
LOWER LIMIT		15815103	8.35				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-233388/2		30889484	9.38				
CCB 320-233388/3		30633860	9.32				
MB 320-232586/1-A		28989273	9.36				
LCS 320-232586/2-A		26709981	9.33				
INF 320-232586/3-A		24305716	9.34				
240-97969-2	MSA-MW-48D-062918	28839421	9.29				
240-97969-3	MSA-MW-48I-062918	28864877	9.29				
240-97969-4	MSA-MW-48S-062918	28473994	9.31				
240-97969-6	DMW-4I-062918	29153704	9.31				
CCV 320-233388/15		29943513	9.39				
240-97969-7	DMW-4D-062918	27095473	9.32				
CCV 320-233388/27		30797338	9.40				
CCVL 320-233388/28		30362865	9.40				
CCB 320-233388/29		30851373	9.40				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Sample No.: CCVIS 320-233402/1 Date Analyzed: 07/11/2018 04:32

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07062018A_042X Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		30797338	9.40				
UPPER LIMIT		46196007	10.40				
LOWER LIMIT		15398669	8.40				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-233402/2		30362865	9.40				
CCB 320-233402/3		30851373	9.40				
MB 320-232133/1-A		30395534	9.39				
LCS 320-232133/2-A		29364226	9.39				
INF 320-232133/3-A		28890821	9.40				
240-97836-2	MSA-MW-51D-062718	31753679	9.33				
CCV 320-233402/16		33384837	9.39				
240-97836-3	MSA-MW-51I-062718	30043128	9.39				
240-97836-4	MSA-MW-51S-062718	29017922	9.38				
240-97836-5	MSA-MW-47S-062718	39258202	9.35				
240-97836-6	MSA-MW-47I-062718	32650050	9.33				
240-97836-7	MSA-MW-47D-062718	31649650	9.42				
240-97912-2	MSA-MW-49D-062818	27639890	9.38				
240-97912-3	MSA-MW-49I-062818	29637507	9.29				
240-97912-4	MSA-MW-49S-062818	28128943	9.33				
CCV 320-233402/28		30227843	9.46				
240-97912-5	MSA-MW-46S-062818	27797720	9.44				
240-97912-6	MSA-MW-46I-062818	27413184	9.42				
240-97912-7	MSA-MW-46D-062818	28570228	9.40				
CCV 320-233402/59		31430232	9.50				
CCVL 320-233402/60		30898144	9.53				
CCB 320-233402/61		31175102	9.51				

18OP = 18-O Perchlorate
18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8652 0.9623	0.8087 0.9480	0.9537 0.9795	0.9432	0.9344	Ave		0.9244				6.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	359152 12489943	535774 22937002	1245468 43723569	2476912	4819671	0.150 5.00	0.250 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

Calibration / Perchlorate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	
RF Rounding:	0

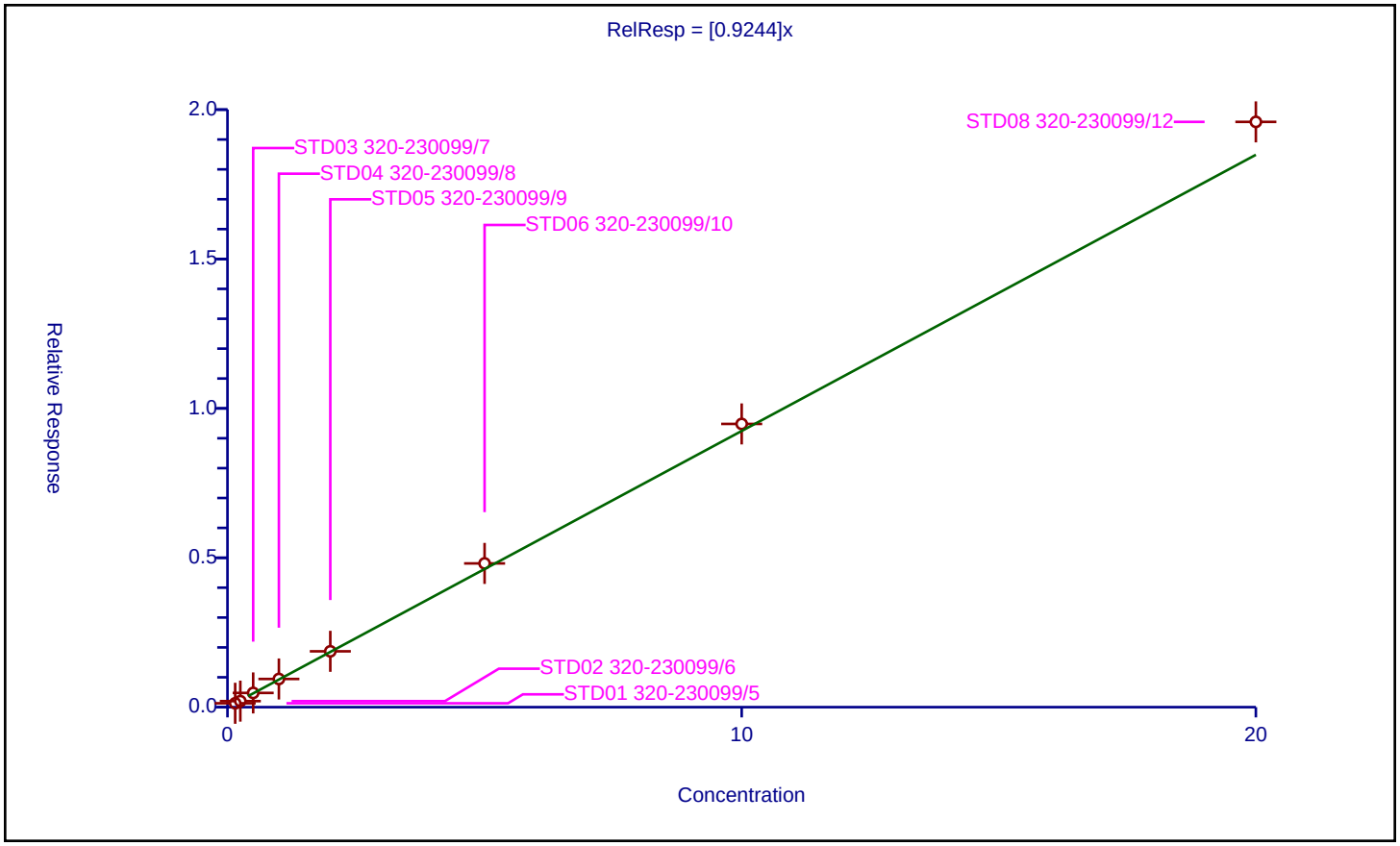
Curve Coefficients

Intercept:	0
Slope:	0.9244

Error Coefficients

Standard Error:	19400000
Relative Standard Error:	6.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD01 320-230099/5	0.15	0.129782	10.009008	27698398.0	0.865214	Y
2	STD02 320-230099/6	0.25	0.202182	10.009008	26523501.0	0.808727	Y
3	STD03 320-230099/7	0.5	0.476833	10.009008	26143095.0	0.953667	Y
4	STD04 320-230099/8	1.0	0.943189	10.009008	26284697.0	0.943189	Y
5	STD05 320-230099/9	2.0	1.868847	10.009008	25812778.0	0.934423	Y
6	STD06 320-230099/10	5.0	4.811553	10.009008	25981617.0	0.962311	Y
7	STD07 320-230099/11	10.0	9.479931	10.009008	24217120.0	0.947993	Y
8	STD08 320-230099/12	20.0	19.589257	10.009008	22340283.0	0.979463	Y



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: ICV 320-230099/14 Calibration Date: 06/20/2018 15:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06202018B_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9817		5.31	5.00	6.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 320-233388/1 Calibration Date: 07/10/2018 22:46

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9513		2.06	2.00	2.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVL 320-233388/2 Calibration Date: 07/10/2018 22:59

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9150		0.495	0.500	-1.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 320-233388/15 Calibration Date: 07/11/2018 01:52

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9103		0.985	1.00	-1.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 320-233388/27 Calibration Date: 07/11/2018 04:32

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9542		2.06	2.00	3.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVIS 320-233402/1 Calibration Date: 07/11/2018 04:32

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_042X.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9542		2.06	2.00	3.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVL 320-233388/28 Calibration Date: 07/11/2018 04:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_043.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.8872		0.480	0.500	-4.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVL 320-233402/2 Calibration Date: 07/11/2018 04:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_043X.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.8872		0.480	0.500	-4.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 320-233402/16 Calibration Date: 07/11/2018 07:38

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_056.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9474		1.02	1.00	2.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 320-233402/28 Calibration Date: 07/11/2018 10:05

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_067.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9351		2.02	2.00	1.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCV 320-233402/59 Calibration Date: 07/11/2018 12:18

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_077.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9566		1.03	1.00	3.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Lab Sample ID: CCVL 320-233402/60 Calibration Date: 07/11/2018 12:31

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_078.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9187		0.497	0.500	-0.6	50.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-230099/13

Matrix: Water Lab File ID: Perc_06202018B_011.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 15:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/3

Matrix: Water Lab File ID: Perc_07062018AX_018.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/10/2018 23:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/29

Matrix: Water Lab File ID: Perc_07062018A_044.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 04:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233402/3

Matrix: Water Lab File ID: Perc_07062018A_044X.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 04:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233402/61

Matrix: Water Lab File ID: Perc_07062018A_079.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 12:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-230099/4

Matrix: Water Lab File ID: Perc_06202018B_002.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 13:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: INF 320-232133/3-A

Matrix: Water Lab File ID: Perc_07062018A_047.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/02/2018 15:46

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 05:38

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233402 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.10		0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: Lab Sample ID: INF 320-232586/3-A

Matrix: Water Lab File ID: Perc_07062018A_021.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/05/2018 13:14

Sample wt/vol: 4.00(mL) Date Analyzed: 07/10/2018 23:52

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	5.54		0.50	0.078

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Instrument ID: A5 Start Date: 06/20/2018 13:32

Analysis Batch Number: 230099 End Date: 06/20/2018 20:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-230099/4		06/20/2018 13:32	1	Perc_06202018B_002.d	Anion HR 4.6(mm)
STD01 320-230099/5 IC		06/20/2018 13:46	1	Perc_06202018B_003.d	Anion HR 4.6(mm)
STD02 320-230099/6 IC		06/20/2018 13:59	1	Perc_06202018B_004.d	Anion HR 4.6(mm)
STD03 320-230099/7 IC		06/20/2018 14:12	1	Perc_06202018B_005.d	Anion HR 4.6(mm)
STD04 320-230099/8 IC		06/20/2018 14:26	1	Perc_06202018B_006.d	Anion HR 4.6(mm)
STD05 320-230099/9 ICISAV		06/20/2018 14:39	1	Perc_06202018B_007.d	Anion HR 4.6(mm)
STD06 320-230099/10 IC		06/20/2018 14:52	1	Perc_06202018B_008.d	Anion HR 4.6(mm)
STD07 320-230099/11 IC		06/20/2018 15:06	1	Perc_06202018B_009.d	Anion HR 4.6(mm)
STD08 320-230099/12 IC		06/20/2018 15:19	1	Perc_06202018B_010.d	Anion HR 4.6(mm)
CCB 320-230099/13		06/20/2018 15:32	1	Perc_06202018B_011.d	Anion HR 4.6(mm)
ICV 320-230099/14		06/20/2018 15:45	1	Perc_06202018B_012.d	Anion HR 4.6(mm)
CCV 320-230099/15		06/20/2018 15:59	1		Anion HR 4.6(mm)
CCVL 320-230099/16		06/20/2018 16:12	1		Anion HR 4.6(mm)
CCB 320-230099/17		06/20/2018 16:25	1		Anion HR 4.6(mm)
CCV 320-230099/30		06/20/2018 19:18	1		Anion HR 4.6(mm)
CCV 320-230099/34		06/20/2018 20:12	1		Anion HR 4.6(mm)
CCVL 320-230099/35		06/20/2018 20:25	1		Anion HR 4.6(mm)
CCB 320-230099/36		06/20/2018 20:38	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Instrument ID: A5 Start Date: 07/10/2018 22:46

Analysis Batch Number: 233388 End Date: 07/11/2018 04:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-233388/1		07/10/2018 22:46	1	Perc_07062018AX 016.d	Anion HR 4.6(mm)
CCVL 320-233388/2		07/10/2018 22:59	1	Perc_07062018AX 017.d	Anion HR 4.6(mm)
CCB 320-233388/3		07/10/2018 23:12	1	Perc_07062018AX 018.d	Anion HR 4.6(mm)
MB 320-232586/1-A		07/10/2018 23:26	1	Perc_07062018A_ 019.d	Anion HR 4.6(mm)
LCS 320-232586/2-A		07/10/2018 23:39	1	Perc_07062018A_ 020.d	Anion HR 4.6(mm)
INF 320-232586/3-A		07/10/2018 23:52	1	Perc_07062018A_ 021.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:06	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:19	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:32	1		Anion HR 4.6(mm)
240-97969-2		07/11/2018 00:45	1	Perc_07062018A_ 025.d	Anion HR 4.6(mm)
240-97969-3		07/11/2018 00:59	1	Perc_07062018A_ 026.d	Anion HR 4.6(mm)
240-97969-4		07/11/2018 01:12	1	Perc_07062018A_ 027.d	Anion HR 4.6(mm)
240-97969-6		07/11/2018 01:25	1	Perc_07062018A_ 028.d	Anion HR 4.6(mm)
CCV 320-233388/15		07/11/2018 01:52	1	Perc_07062018A_ 030.d	Anion HR 4.6(mm)
240-97969-7		07/11/2018 02:05	1	Perc_07062018A_ 031.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:32	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:45	1		Anion HR 4.6(mm)
INF 320-232794/3-A		07/11/2018 02:59	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:12	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:25	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:39	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 03:52	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 04:05	1		Anion HR 4.6(mm)
CCV 320-233388/27		07/11/2018 04:32	1	Perc_07062018A_ 042.d	Anion HR 4.6(mm)
CCVL 320-233388/28		07/11/2018 04:45	1	Perc_07062018A_ 043.d	Anion HR 4.6(mm)
CCB 320-233388/29		07/11/2018 04:58	1	Perc_07062018A_ 044.d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Instrument ID: A5 Start Date: 07/11/2018 04:32

Analysis Batch Number: 233402 End Date: 07/11/2018 12:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-233402/1		07/11/2018 04:32	1	Perc_07062018A_042X.d	Anion HR 4.6(mm)
CCVL 320-233402/2		07/11/2018 04:45	1	Perc_07062018A_043X.d	Anion HR 4.6(mm)
CCB 320-233402/3		07/11/2018 04:58	1	Perc_07062018A_044X.d	Anion HR 4.6(mm)
MB 320-232133/1-A		07/11/2018 05:12	1	Perc_07062018A_045.d	Anion HR 4.6(mm)
LCS 320-232133/2-A		07/11/2018 05:25	1	Perc_07062018A_046.d	Anion HR 4.6(mm)
INF 320-232133/3-A		07/11/2018 05:38	1	Perc_07062018A_047.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 05:52	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 06:05	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 06:18	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 06:45	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 06:58	1		Anion HR 4.6(mm)
240-97836-2		07/11/2018 07:12	1	Perc_07062018A_054.d	Anion HR 4.6(mm)
CCV 320-233402/16		07/11/2018 07:38	1	Perc_07062018A_056.d	Anion HR 4.6(mm)
240-97836-3		07/11/2018 07:52	1	Perc_07062018A_057.d	Anion HR 4.6(mm)
240-97836-4		07/11/2018 08:05	1	Perc_07062018A_058.d	Anion HR 4.6(mm)
240-97836-5		07/11/2018 08:18	1	Perc_07062018A_059.d	Anion HR 4.6(mm)
240-97836-6		07/11/2018 08:31	1	Perc_07062018A_060.d	Anion HR 4.6(mm)
240-97836-7		07/11/2018 08:58	1	Perc_07062018A_062.d	Anion HR 4.6(mm)
240-97912-2		07/11/2018 09:11	1	Perc_07062018A_063.d	Anion HR 4.6(mm)
240-97912-3		07/11/2018 09:25	1	Perc_07062018A_064.d	Anion HR 4.6(mm)
240-97912-4		07/11/2018 09:38	1	Perc_07062018A_065.d	Anion HR 4.6(mm)
CCV 320-233402/28		07/11/2018 10:05	1	Perc_07062018A_067.d	Anion HR 4.6(mm)
240-97912-5		07/11/2018 10:18	1	Perc_07062018A_068.d	Anion HR 4.6(mm)
240-97912-6		07/11/2018 10:31	1	Perc_07062018A_069.d	Anion HR 4.6(mm)
240-97912-7		07/11/2018 10:45	1	Perc_07062018A_070.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 10:58	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 11:11	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 11:25	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 11:38	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 11:51	1		Anion HR 4.6(mm)
CCV 320-233402/59		07/11/2018 12:18	1	Perc_07062018A_077.d	Anion HR 4.6(mm)
CCVL 320-233402/60		07/11/2018 12:31	1	Perc_07062018A_078.d	Anion HR 4.6(mm)
CCB 320-233402/61		07/11/2018 12:44	1	Perc_07062018A_079.d	Anion HR 4.6(mm)

6850

SAMPLE CALC	SAMPLE ID	DMW-4D-062918	PERCHLORATE				
IS AREA	DILUTION	COMPOUND OF INTEREST AREA	IS AMOUNT (NG)	Final Extract Volume (mL)	AVE RRF	CONCENTRATION	
27095473	1	5766228	10	4	0.9336	2.3	ng/uL
		Amt Injected (uL)		VOLUME OF SAMPLE (mL)		2.3	ug/L
		80		4			

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Sample Calculation - Page 2

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8652 0.9623	0.8087 0.9480	0.9537 0.9795	0.9432	0.9344	Ave		0.9244				6.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-97836-1

SDG No.:

Client Sample ID: DMW-4D-062918 Lab Sample ID: 240-97969-7

Matrix: Water Lab File ID: Perc_07062018A_031.d

Analysis Method: 6850 Date Collected: 06/29/2018 00:00

Extraction Method: Filtration Date Extracted: 07/05/2018 14:00

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 02:05

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	2.3		0.50	0.082

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A5\20180711-60896.b\Perc_07062018A_031.d
Lims ID: 240-97969-D-7-A
Client ID: DMW-4D-062918
Sample Type: Client
Inject. Date: 11-Jul-2018 02:05:53 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 80.0 ul Dil. Factor: 1.0000
Sample Info: 240-97969-d-7-a, Sample
Operator ID: Instrument ID: A5

Method: \\ChromNA\Sacramento\ChromData\A5\20180711-60896.b\6850_A5.m
Limit Group: LC 6850 ICAL
Last Update: 11-Jul-2018 09:47:29 Calib Date: 20-Jun-2018 15:19:23
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A5\20180620-59996.b\Perc_06202018B_010.d

Column 1 : IC-PAK Anion HR (4.60 mm) Det: MS QQQ
Process Host: XAWRK024

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	S/N	Flags
2 Perchlorate									
99.0 > 83.0	9.328	9.382	-0.054	1.001	5766228	2.30		2757	
101.0 > 85.0	9.365	9.382	-0.017	1.005	2048597		2.81(2.30-3.80)	23462	
* 1 18-O Perchlorate									
107.0 > 89.0	9.321	9.389	-0.068		27095473	10.0		8494	
109.0 > 91.0	9.290	9.389	-0.099		8649662		3.13(2.30-3.80)	570	

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
MSA-MW-48D-062918	240-97969-2
MSA-MW-48I-062918	240-97969-3
MSA-MW-48S-062918	240-97969-4

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job Number: 240-97836-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
MSA-MW-48D-062918	240-97969-2
MSA-MW-48I-062918	240-97969-3
MSA-MW-48S-062918	240-97969-4

Comments:

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Analyst: LKG Batch Start Date: 05/03/2018

Reporting Units: mg/L Analytical Batch No.: 325165

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	11:45	Chloride	50.6	50.0	101	90-110		WCICLCS_00657
			Sulfate	50.3	50.0	101	90-110		WCICLCS_00657
11	ICB	12:05	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Analyst: LKG Batch Start Date: 05/03/2018

Reporting Units: mg/L Analytical Batch No.: 325166

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	11:45	Nitrite as N	2.46	2.50	99	90-110		WCICLCS_00657
			Nitrate as N	2.57	2.50	103	90-110		WCICLCS_00657
11	ICB	12:05	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Analyst: LKG Batch Start Date: 06/30/2018

Reporting Units: mg/L Analytical Batch No.: 334267

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:57	Chloride	50.2	50.0	100	90-110		WCICCCV_00827
			Sulfate	51.7	50.0	103	90-110		WCICCCV_00827
2	CCB	14:17	Chloride	0.28				U	
			Sulfate	0.35				U	
13	CCV	17:59	Chloride	50.3	50.0	101	90-110		WCICCCV_00827
			Sulfate	52.9	50.0	106	90-110		WCICCCV_00827
14	CCB	18:19	Chloride	0.28				U	
			Sulfate	0.35				U	
21	CCV	20:40	Chloride	50.3	50.0	101	90-110		WCICCCV_00827
			Sulfate	51.7	50.0	103	90-110		WCICCCV_00827
22	CCB	21:00	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Analyst: LKG Batch Start Date: 06/30/2018

Reporting Units: mg/L Analytical Batch No.: 334268

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:57	Nitrite as N	2.45	2.50	98	90-110		WCICCCV_00827
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00827
2	CCB	14:17	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	17:59	Nitrite as N	2.45	2.50	98	90-110		WCICCCV_00827
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00827
14	CCB	18:19	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
21	CCV	20:40	Nitrite as N	2.46	2.50	98	90-110		WCICCCV_00827
			Nitrate as N	2.57	2.50	103	90-110		WCICCCV_00827
22	CCB	21:00	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Analyst: LKG Batch Start Date: 07/07/2018

Reporting Units: mg/L Analytical Batch No.: 335124

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	13:10	Chloride	49.1	50.0	98	90-110		WCICCCV_00828
			Sulfate	50.1	50.0	100	90-110		WCICCCV_00828
2	CCB	13:30	Chloride	0.28				U	
			Sulfate	0.35				U	
13	CCV	17:12	Chloride	49.0	50.0	98	90-110		WCICCCV_00828
			Sulfate	50.2	50.0	100	90-110		WCICCCV_00828
14	CCB	17:32	Chloride	0.28				U	
			Sulfate	0.35				U	
25	CCV	21:13	Chloride	49.1	50.0	98	90-110		WCICCCV_00828
			Sulfate	51.4	50.0	103	90-110		WCICCCV_00828
26	CCB	21:33	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG No.:

Analyst: VRP Batch Start Date: 07/13/2018

Reporting Units: mg/L Analytical Batch No.: 529167

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
4	CCV	17:40	Dissolved Organic Carbon	23.0	25.0	92	90-110		TOC_CCV@1000_00041
5	CCB	17:40	Dissolved Organic Carbon	0.50				U	
12	CCV	17:40	Dissolved Organic Carbon	24.6	25.0	98	90-110		TOC_CCV@1000_00041
13	CCB	17:40	Dissolved Organic Carbon	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 335871	Date: 07/12/2018 09:00						
2320B-1997	MB 240-335871/2	Alkalinity	3.00	J	mg/L	5.0	1
Batch ID: 336165	Date: 07/13/2018 13:55	Prep Batch: 336157	Date: 07/13/2018 13:28				
4500 NH3 C-1997	MB 240-336157/1-A	Ammonia	0.46	U	mg/L	2.0	1
Batch ID: 334267	Date: 06/30/2018 14:37						
9056A	MB 240-334267/3	Chloride	0.28	U	mg/L	1.0	1
9056A	MB 240-334267/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 334268	Date: 06/30/2018 14:37						
9056A	MB 240-334268/3	Nitrite as N	0.014	U	mg/L	0.10	1
9056A	MB 240-334268/3	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 335124	Date: 07/07/2018 13:50						
9056A	MB 240-335124/3	Chloride	0.28	U	mg/L	1.0	1
9056A	MB 240-335124/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 334813	Date: 07/05/2018 09:57						
SM 2540C	MB 240-334813/1	Total Dissolved Solids	7.8	U	mg/L	10	1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 529167	Date: 07/13/2018 17:40						
9060A	MB 490-529167/3	Dissolved Organic Carbon	0.674	J	mg/L	1.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 335124 Date: 07/07/2018 18:12											
9056A	240-97969-2	Chloride	75		mg/L						
9056A	240-97969-2 MS	Chloride	314		mg/L	250	96	80-120			
9056A	240-97969-2	Sulfate	270		mg/L						
9056A	240-97969-2 MS	Sulfate	502		mg/L	250	94	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 335124 Date: 07/07/2018 18:32											
9056A	240-97969-2 MSD	Chloride	316		mg/L	250	96	80-120	0	15	
9056A	240-97969-2 MSD	Sulfate	498		mg/L	250	92	80-120	1	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 335871	Date: 07/12/2018 09:00										
						LCS Source: WCPHENOMINER_00022					
2320B-1997	LCS 240-335871/3	Alkalinity	292		mg/L	271	108	86-123			
Batch ID: 336165	Date: 07/13/2018 13:57	Prep Batch: 336157	Date: 07/13/2018 13:28								
						LCS Source: WCWIBBYNUTRIE_00103					
4500 NH3 C-1997	LCS 240-336157/2-A	Ammonia	12.0		mg/L	13.4	90	82-116			
Batch ID: 334267	Date: 06/30/2018 14:58										
						LCS Source: WCICLCS_00664					
9056A	LCS 240-334267/4	Chloride	50.8		mg/L	50.0	102	90-110			
9056A	LCS 240-334267/4	Sulfate	50.7		mg/L	50.0	101	90-110			
Batch ID: 334268	Date: 06/30/2018 14:58										
						LCS Source: WCICLCS_00664					
9056A	LCS 240-334268/4	Nitrite as N	2.40		mg/L	2.50	96	90-110			
9056A	LCS 240-334268/4	Nitrate as N	2.56		mg/L	2.50	102	90-110			
Batch ID: 335124	Date: 07/07/2018 14:11										
						LCS Source: WCICLCS_00665					
9056A	LCS 240-335124/4	Chloride	51.4		mg/L	50.0	103	90-110			
9056A	LCS 240-335124/4	Sulfate	51.6		mg/L	50.0	103	90-110			
Batch ID: 334813	Date: 07/05/2018 09:57										
						LCS Source: WCPHENOVSOLID_00030					
SM 2540C	LCS 240-334813/2	Total Dissolved Solids	743		mg/L	744	100	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 529167	Date: 07/13/2018 17:40										
						LCS Source: TOC_LCS@1000_00020					
9060A	LCS 490-529167/6	Dissolved Organic Carbon	9.51		mg/L	10.0	95	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 04/25/2017 10:36

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.455

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 04/25/2017 10:37

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.455

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.284
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.284
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A MDL Date: 01/16/2012 09:25

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-97836-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A XMDL Date: 01/16/2012 09:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.5

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-336157/1-A	07/13/2018 13:28	336157		50	50
LCS 240-336157/2-A	07/13/2018 13:28	336157		50	50
240-97969-2	07/13/2018 13:28	336157		50	50
240-97969-3	07/13/2018 13:28	336157		50	50
240-97969-4	07/13/2018 13:28	336157		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 07/13/2018 13:55 End Date: 07/13/2018 14:34

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-336157/1-A	1	T	13:55	X																								
LCS 240-336157/2-A	1	T	13:57	X																								
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
240-97969-2	1	T	14:13	X																								
240-97969-3	1	T	14:16	X																								
240-97969-4	1	T	14:18	X																								
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: Randolph Analysis Method: 2320B-1997

Start Date: 07/12/2018 09:00 End Date: 07/12/2018 09:00

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			09:00																									
MB 240-335871/2	1	T	09:00	X																								
LCS 240-335871/3	1	T	09:00	X																								
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
240-97969-2	1	T	09:00	X																								
240-97969-3	1	T	09:00	X																								
240-97969-4	1	T	09:00	X																								
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
ZZZZZZ			09:00																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 05/03/2018 08:44 End Date: 05/03/2018 12:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cl-	SO4																							
STD1 240-325165/1 IC	1		08:44	X	X																							
STD2 240-325165/2 IC	1		09:04	X	X																							
STD3 240-325165/3 IC	1		09:24	X	X																							
STD4 240-325165/4 IC	1		09:44	X	X																							
STD5 240-325165/5 ICRT	1		10:04	X	X																							
STD6 240-325165/6 IC	1		10:24	X	X																							
STD7 240-325165/7 IC	1		10:44	X	X																							
STD8 240-325165/8 IC	1		11:05	X	X																							
STD9 240-325165/9 IC	1		11:25	X	X																							
ICV 240-325165/10	1		11:45	X	X																							
ICB 240-325165/11	1		12:05	X	X																							

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 05/03/2018 08:44 End Date: 05/03/2018 12:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
STD1 240-325166/1 IC	1		08:44	X	X																								
STD2 240-325166/2 IC	1		09:04	X	X																								
STD3 240-325166/3 IC	1		09:24	X	X																								
STD4 240-325166/4 IC	1		09:44	X	X																								
STD5 240-325166/5 ICRT	1		10:04	X	X																								
STD6 240-325166/6 IC	1		10:24	X	X																								
STD7 240-325166/7 IC	1		10:44	X	X																								
STD8 240-325166/8 IC	1		11:05	X	X																								
STD9 240-325166/9 IC	1		11:25	X	X																								
ICV 240-325166/10	1		11:45	X	X																								
ICB 240-325166/11	1		12:05	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 06/30/2018 13:57 End Date: 06/30/2018 21:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				Cl-	SO4																								
CCV 240-334267/1	1		13:57	X	X																								
CCB 240-334267/2	1		14:17	X	X																								
MB 240-334267/3	1	T	14:37	X	X																								
LCS 240-334267/4	1	T	14:58	X	X																								
ZZZZZZ			15:18																										
ZZZZZZ			15:38																										
ZZZZZZ			15:58																										
ZZZZZZ			16:18																										
ZZZZZZ			16:38																										
ZZZZZZ			16:58																										
ZZZZZZ			17:19																										
240-97969-2	1	T	17:39	X																									
CCV 240-334267/13	1		17:59	X	X																								
CCB 240-334267/14	1		18:19	X	X																								
240-97969-3	1	T	18:39	X																									
240-97969-3	5	T	18:59		X																								
240-97969-4	1	T	19:19	X																									
240-97969-4	5	T	19:39		X																								
ZZZZZZ			19:59																										
ZZZZZZ			20:20																										
CCV 240-334267/21	1		20:40	X	X																								
CCB 240-334267/22	1		21:00	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 06/30/2018 13:57 End Date: 06/30/2018 21:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
CCV 240-334268/1	1		13:57	X	X																								
CCB 240-334268/2	1		14:17	X	X																								
MB 240-334268/3	1	T	14:37	X	X																								
LCS 240-334268/4	1	T	14:58	X	X																								
ZZZZZZ			15:18																										
ZZZZZZ			15:38																										
ZZZZZZ			15:58																										
ZZZZZZ			16:18																										
ZZZZZZ			16:38																										
ZZZZZZ			16:58																										
ZZZZZZ			17:19																										
240-97969-2	1	T	17:39	X	X																								
CCV 240-334268/13	1		17:59	X	X																								
CCB 240-334268/14	1		18:19	X	X																								
240-97969-3	1	T	18:39	X	X																								
ZZZZZZ			18:59																										
240-97969-4	1	T	19:19	X	X																								
ZZZZZZ			19:39																										
CCV 240-334268/21	1		20:40	X	X																								
CCB 240-334268/22	1		21:00	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/07/2018 13:10 End Date: 07/08/2018 05:36

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-335124/1	1		13:10	X	X																								
CCB 240-335124/2	1		13:30	X	X																								
MB 240-335124/3	1	T	13:50	X	X																								
LCS 240-335124/4	1	T	14:11	X	X																								
ZZZZZZ			15:51																										
ZZZZZZ			16:11																										
ZZZZZZ			16:31																										
ZZZZZZ			16:51																										
CCV 240-335124/13	1		17:12	X	X																								
CCB 240-335124/14	1		17:32	X	X																								
240-97969-2	5	T	17:52		X																								
240-97969-2 MS	5	T	18:12	X	X																								
240-97969-2 MSD	5	T	18:32	X	X																								
ZZZZZZ			18:52																										
ZZZZZZ			19:12																										
ZZZZZZ			19:32																										
ZZZZZZ			19:53																										
ZZZZZZ			20:13																										
ZZZZZZ			20:33																										
ZZZZZZ			20:53																										
CCV 240-335124/25	1		21:13	X	X																								
CCB 240-335124/26	1		21:33	X	X																								
ZZZZZZ			21:53																										
ZZZZZZ			22:13																										
ZZZZZZ			22:33																										
ZZZZZZ			22:54																										
ZZZZZZ			23:14																										
ZZZZZZ			23:34																										
ZZZZZZ			23:54																										
ZZZZZZ			00:14																										
ZZZZZZ			00:34																										
ZZZZZZ			00:54																										
CCV 240-335124/37			01:14																										
CCB 240-335124/38			01:34																										
ZZZZZZ			01:55																										
ZZZZZZ			02:15																										
ZZZZZZ			02:35																										
ZZZZZZ			02:55																										
ZZZZZZ			03:15																										
ZZZZZZ			03:35																										
ZZZZZZ			03:55																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/07/2018 13:10 End Date: 07/08/2018 05:36

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cl-	SO4																							
ZZZZZZ			04:15																									
ZZZZZZ			04:36																									
ZZZZZZ			04:56																									
CCV 240-335124/49			05:16																									
CCB 240-335124/50			05:36																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/05/2018 09:57 End Date: 07/05/2018 09:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-334813/1	1	T	09:57	X																								
LCS 240-334813/2	1	T	09:57	X																								
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
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ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
240-97969-2	1	T	09:57	X																								
240-97969-3	1	T	09:57	X																								
240-97969-4	1	T	09:57	X																								
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									
ZZZZZZ			09:57																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9060A

Start Date: 07/13/2018 17:40 End Date: 07/13/2018 17:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			17:40																									
ZZZZZZ			17:40																									
MB 490-529167/3	1	D	17:40	X																								
CCV 490-529167/4	1		17:40	X																								
CCB 490-529167/5	1		17:40	X																								
LCS 490-529167/6	1	D	17:40	X																								
240-97969-2	1	D	17:40	X																								
240-97969-3	1	D	17:40	X																								
240-97969-4	1	D	17:40	X																								
ZZZZZZ			17:40																									
ZZZZZZ			17:40																									
CCV 490-529167/12	1		17:40	X																								
CCB 490-529167/13	1		17:40	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 336157 Batch Start Date: 07/13/18 13:00 Batch Analyst: Moser, Morgan

Batch Method: 4500 NH3 B-1997 Batch End Date: 07/20/18 13:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	AdjustedpH	WCWIBBYNUTRIE 00103	
MB 240-336157/1		4500 NH3 B-1997, 4500 NH3 C-1997		X	50 mL	50 mL	X SU		
LCS 240-336157/2		4500 NH3 B-1997, 4500 NH3 C-1997		X	50 mL	50 mL	X SU	50 mL	
240-97969-N-2	MSA-MW-48D-062918	4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU		
240-97969-N-3	MSA-MW-48I-062918	4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU		
240-97969-R-4	MSA-MW-48S-062918	4500 NH3 B-1997, 4500 NH3 C-1997	T	X	50 mL	50 mL	X SU		

Batch Notes	
Base used for pH adjustment	3678220
Batch Comment	BEAKERS 3529299
Borate Buffer Dispenser ID	3630772
Boric Acid Dispenser ID	3657009
Distilliation Unit ID	DISTILLATION BLOCK IN WET PREP
Distillation Temperature	164 Degrees C
Phenanthroline ID	3653931
Pipette ID	B5, C8, E9

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 336165 Batch Start Date: 07/13/18 13:55 Batch Analyst: Grossman, Lucas

Batch Method: 4500 NH3 C-1997 Batch End Date: 07/13/18 14:37

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TitrantVolume1			
MB 240-336157/1-A		4500 NH3 C-1997		50 mL	50 mL	0 mL			
LCS 240-336157/2-A		4500 NH3 C-1997		50 mL	50 mL	2.15 mL			
240-97969-N-2-A	MSA-MW-48D-062918	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			
240-97969-N-3-A	MSA-MW-48I-062918	4500 NH3 C-1997	T	50 mL	50 mL	0.50 mL			
240-97969-R-4-A	MSA-MW-48S-062918	4500 NH3 C-1997	T	50 mL	50 mL	0.10 mL			

Batch Notes	
Batch Comment	BEAKERS 3529299
Sulfuric Acid ID	3509322
Nominal Amount Used	50 mL
Normality of First Titrant	0.02 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 335871 Batch Start Date: 07/12/18 09:00 Batch Analyst: Loeb, Brendan W

Batch Method: 2320B-1997 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
MB 240-335871/2		2320B-1997		50 mL	6.14 SU	0 mL	0 mL	0 mL	0 mL
LCS 240-335871/3		2320B-1997		50 mL	8.61 SU	0 mL	.35 mL	0.35 mL	0 mL
240-97969-J-2	MSA-MW-48D-062918	2320B-1997	T	50 mL	5.01 SU	0 mL	0 mL	0 mL	0 mL
240-97969-J-3	MSA-MW-48I-062918	2320B-1997	T	50 mL	6.24 SU	0 mL	0 mL	0 mL	0 mL
240-97969-L-4	MSA-MW-48S-062918	2320B-1997	T	50 mL	7.31 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
MB 240-335871/2		2320B-1997		.15 mL	0.15 mL	Case 1	0 mg/L	0 mg/L	3 mg/L
LCS 240-335871/3		2320B-1997		14.25 mL	14.25 mL	Case 2	14 mg/L	0 mg/L	278 mg/L
240-97969-J-2	MSA-MW-48D-062918	2320B-1997	T	.4 mL	0.4 mL	Case 1	0 mg/L	0 mg/L	8 mg/L
240-97969-J-3	MSA-MW-48I-062918	2320B-1997	T	11.85 mL	11.85 mL	Case 1	0 mg/L	0 mg/L	237 mg/L
240-97969-L-4	MSA-MW-48S-062918	2320B-1997	T	26.35 mL	26.35 mL	Case 1	0 mg/L	0 mg/L	527 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WCPHENOMINER 00022		
MB 240-335871/2		2320B-1997		0 mg/L	3 mg/L	50 mL			
LCS 240-335871/3		2320B-1997		7 mg/L	292 mg/L	50 mL	50 mL		
240-97969-J-2	MSA-MW-48D-062918	2320B-1997	T	0 mg/L	8 mg/L	50 mL			
240-97969-J-3	MSA-MW-48I-062918	2320B-1997	T	0 mg/L	237 mg/L	50 mL			
240-97969-L-4	MSA-MW-48S-062918	2320B-1997	T	0 mg/L	527 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 335871 Batch Start Date: 07/12/18 09:00 Batch Analyst: Loeb, Brendan W

Batch Method: 2320B-1997 Batch End Date:

Batch Notes	
Acid ID	3509320
Batch Comment	slope = 101.1%
pH Buffer 1 ID	3398997
pH Buffer 2 ID	3625189
pH Buffer 3 ID	3445397
pH Buffer 4 ID	3647032
pH Buffer 5 ID	3401385
Nominal Amount Used	50 mL
pH Meter ID	Randolph
Probe ID	WCP-118
Normality of First Titrant	.02 N
Titrant Standardization Date	07/12/2018

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 325165 Batch Start Date: 05/03/18 08:44 Batch Analyst: Grossman, Lucas

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00289	WCICLCS 00657			
STD1 240-325165/1 IC		9056A		5 mL	0.025 mL				
STD2 240-325165/2 IC		9056A		5 mL	0.125 mL				
STD3 240-325165/3 IC		9056A		5 mL	0.25 mL				
STD4 240-325165/4 IC		9056A		5 mL	0.5 mL				
STD5 240-325165/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-325165/6 IC		9056A		5 mL	2 mL				
STD7 240-325165/7 IC		9056A		5 mL	2.5 mL				
STD8 240-325165/8 IC		9056A		5 mL	3.75 mL				
STD9 240-325165/9 IC		9056A		5 mL	5 mL				
ICV 240-325165/10		9056A		5 mL		5 mL			
ICB 240-325165/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 325166 Batch Start Date: 05/03/18 08:44 Batch Analyst: Grossman, Lucas

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCALSOLN 00289	WCICLCS 00657			
STD1 240-325166/1 IC		9056A		5 mL	0.025 mL				
STD2 240-325166/2 IC		9056A		5 mL	0.125 mL				
STD3 240-325166/3 IC		9056A		5 mL	0.25 mL				
STD4 240-325166/4 IC		9056A		5 mL	0.5 mL				
STD5 240-325166/5 ICRT		9056A		5 mL	1.25 mL				
STD6 240-325166/6 IC		9056A		5 mL	2 mL				
STD7 240-325166/7 IC		9056A		5 mL	2.5 mL				
STD8 240-325166/8 IC		9056A		5 mL	3.75 mL				
STD9 240-325166/9 IC		9056A		5 mL	5 mL				
ICV 240-325166/10		9056A		5 mL		5 mL			
ICB 240-325166/11		9056A		5 mL					

Batch Notes	
Eluent 1 ID	water

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334267 Batch Start Date: 06/30/18 13:57 Batch Analyst: Grossman, Lucas

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00827	WCICLCS 00664			
CCV 240-334267/1		9056A		5 mL	5 mL				
CCB 240-334267/2		9056A		5 mL					
MB 240-334267/3		9056A		5 mL					
LCS 240-334267/4		9056A		5 mL		5 mL			
240-97969-M-2	MSA-MW-48D-062918	9056A	T	5 mL					
CCV 240-334267/13		9056A		5 mL	5 mL				
CCB 240-334267/14		9056A		5 mL					
240-97969-M-3	MSA-MW-48I-062918	9056A	T	5 mL					
240-97969-M-3	MSA-MW-48I-062918	9056A	T	5 mL					
240-97969-Q-4	MSA-MW-48S-062918	9056A	T	5 mL					
240-97969-Q-4	MSA-MW-48S-062918	9056A	T	5 mL					
CCV 240-334267/21		9056A		5 mL	5 mL				
CCB 240-334267/22		9056A		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334268 Batch Start Date: 06/30/18 13:57 Batch Analyst: Grossman, Lucas

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00827	WCICLCS 00664			
CCV 240-334268/1		9056A		5 mL	5 mL				
CCB 240-334268/2		9056A		5 mL					
MB 240-334268/3		9056A		5 mL					
LCS 240-334268/4		9056A		5 mL		5 mL			
240-97969-M-2	MSA-MW-48D-062918	9056A	T	5 mL					
CCV 240-334268/13		9056A		5 mL	5 mL				
CCB 240-334268/14		9056A		5 mL					
240-97969-M-3	MSA-MW-48I-062918	9056A	T	5 mL					
240-97969-M-3	MSA-MW-48I-062918	9056A	T	5 mL					
240-97969-Q-4	MSA-MW-48S-062918	9056A	T	5 mL					
240-97969-Q-4	MSA-MW-48S-062918	9056A	T	5 mL					
CCV 240-334268/21		9056A		5 mL	5 mL				
CCB 240-334268/22		9056A		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 335124 Batch Start Date: 07/07/18 13:10 Batch Analyst: Grossman, Lucas

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	WCICCCV 00828	WCICLCS 00665	WCICSOLNA1 00018	WCICSOLNB1 00017	
CCV 240-335124/1		9056A		5 mL	5 mL				
CCB 240-335124/2		9056A		5 mL					
MB 240-335124/3		9056A		5 mL					
LCS 240-335124/4		9056A		5 mL		5 mL			
CCV 240-335124/13		9056A		5 mL	5 mL				
CCB 240-335124/14		9056A		5 mL					
240-97969-J-2	MSA-MW-48D-062918	9056A	T	5 mL					
240-97969-J-2 MS	MSA-MW-48D-062918	9056A	T	5 mL			0.1 mL	0.1 mL	
240-97969-J-2 MSD	MSA-MW-48D-062918	9056A	T	5 mL			0.1 mL	0.1 mL	
CCV 240-335124/25		9056A		5 mL	5 mL				
CCB 240-335124/26		9056A		5 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334813 Batch Start Date: 07/05/18 09:57 Batch Analyst: Raymond, Anthony C

Batch Method: SM 2540C Batch End Date: 07/06/18 16:12

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	TareWeight	InitialAmount	Weight1	Weight2	Weight3
MB 240-334813/1		SM 2540C			3.6382 g	100 mL	3.6381 g	3.6382 g	0 g
LCS 240-334813/2		SM 2540C			3.6282 g	100 mL	3.7024 g	3.7025 g	0 g
240-97969-M-2	MSA-MW-48D-062918	SM 2540C	T	832 umhos/cm	3.5984 g	100 mL	3.6517 g	3.6513 g	0 g
240-97969-M-3	MSA-MW-48I-062918	SM 2540C	T	1399 umhos/cm	3.5890 g	100 mL	3.6816 g	3.6821 g	0 g
240-97969-Q-4	MSA-MW-48S-062918	SM 2540C	T	1492 umhos/cm	3.5925 g	100 mL	3.7016 g	3.7019 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	WeightTwo%Diff	Weight4OK	Residue	Residue2	Residue3
MB 240-334813/1		SM 2540C		Pass No Unit	N/A No Unit	N/A	-0.0001 g	0 g	N/A g
LCS 240-334813/2		SM 2540C		Pass No Unit	N/A No Unit	N/A	0.0742 g	0.0743 g	N/A g
240-97969-M-2	MSA-MW-48D-062918	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0533 g	0.0529 g	N/A g
240-97969-M-3	MSA-MW-48I-062918	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.0926 g	0.0931 g	N/A g
240-97969-Q-4	MSA-MW-48S-062918	SM 2540C	T	Pass No Unit	N/A No Unit	N/A	0.1091 g	0.1094 g	N/A g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Residue4	FinalAmount	CalcMsg	WCPHENOVSOLID00030		
MB 240-334813/1		SM 2540C		N/A g	100 mL	OK			
LCS 240-334813/2		SM 2540C		N/A g	100 mL	OK	100 mL		
240-97969-M-2	MSA-MW-48D-062918	SM 2540C	T	N/A g	100 mL	OK			
240-97969-M-3	MSA-MW-48I-062918	SM 2540C	T	N/A g	100 mL	OK			
240-97969-Q-4	MSA-MW-48S-062918	SM 2540C	T	N/A g	100 mL	OK			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-97836-1

SDG No.:

Batch Number: 334813 Batch Start Date: 07/05/18 09:57 Batch Analyst: Raymond, Anthony C

Batch Method: SM 2540C Batch End Date: 07/06/18 16:12

Batch Notes	
Balance ID	B048
Conductivity Meter ID	Myron
Date/Time - In - CW (WT2)	07/06/2018 12:14
Date/Time - Out - CW (WT2)	07/06/2018 13:30
Temperature - Start - CW (WT2) - Correct	178 Degrees C
Temperature - End - CW (WT2) - Correct	179 Degrees C
Temperature - Start-CW(WT2) -Uncorrected	180 Degrees C
Temperature - End-CW(WT2) -Uncorrected	181 Degrees C
Temperature - Start - Corrected	104 Degrees C
Temperature - End - Corrected	104 Degrees C
Date/Time - In	07/05/2018 10:52
Date/Time - Out	07/06/2018 09:09
Filter ID	14836060
Nominal Amount Used	100 mL
Oven ID	001
Oven ID - Low Temperature	006
Thermometer ID - Low Temperature	84922
Thermometer ID	68731
Temperature - Start - Uncorrected	105 Degrees C
Temperature - End - Uncorrected	105 Degrees C
Vessel Lot ID	04969963-8152-AG
Weight(WT1) Start Date/Time	07/06/2018 09:09 No Unit
Weight(WT1) Date/Time Out	07/06/2018 11:06
Weight(WT1) Start Temp	178 Celsius
Weight(WT1) Temp Out	181 Celsius
Uncorrected Weight(WT1) Start Temp	180 Celsius
Uncorrected Weight(WT1) Temp Out	183 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Nashville Job No.: 240-97836-1

SDG No.:

Batch Number: 529167 Batch Start Date: 07/13/18 17:40 Batch Analyst: Patel, Viren R

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC_CCV@1000 00041	TOC_LCS@1000 00020		
MB 490-529167/3		9060A		50 mL	50 mL				
CCV 490-529167/4		9060A		50 mL	50 mL	1.25 mL			
CCB 490-529167/5		9060A		50 mL	50 mL				
LCS 490-529167/6		9060A		50 mL	50 mL		0.5 mL		
240-97969-G-2	MSA-MW-48D-062918	9060A	D	50 mL	50 mL				
240-97969-G-3	MSA-MW-48I-062918	9060A	D	50 mL	50 mL				
240-97969-I-4	MSA-MW-48S-062918	9060A	D	50 mL	50 mL				
CCV 490-529167/12		9060A		50 mL	50 mL	1.25 mL			
CCB 490-529167/13		9060A		50 mL	50 mL				

Batch Notes	
Pipette/Syringe/Dispenser ID	21061149 21011026 20011394

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **AUGUST 27, 2018**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION – VOC / HAAS/ SVOC / OVG / GRO / DRO/ SELECT TOTAL AND DISSOLVED METALS/ PERCHLORATE / MISCELLANEOUS/ RADIUM-228 / TOTAL ALPHA RADIUM**
MSA – GROUNDWATER MONITORING – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 240-98038-1

SAMPLES:

15/ Aqueous/
VOC, SVOC, Select Total and Dissolved Metals

DMW-16D-070218	DMW-16I-070218	DMW-16S-070218
DMW-17I-070518	DMW-17S-070518	DMW-5I-071018
DMW-5S-071018	MSA-MW-18I-070918	MSA-MW-18S-071018
MSA-MW-29D-070918	MSA-MW-38S-071018	MSA-MW-39S-070218
MSA-MW-43S-070218	MSA-MW-53I-070218	MSA-MW-53S-070218

1/Aqueous/
HAAS
DMW-5S-071018

2/Aqueous/
OVG

MSA-MW-18I-070918	MSA-MW-18S-071018

7/Aqueous/
Perchlorate

DMW-16D-070218	DMW-17I-070518	DMW-5I-071018
MSA-MW-18I-070918	MSA-MW-29D-070918	MSA-MW-53I-070218
MSA-MW-53S-070218		

8/Aqueous/
GRO, DRO

DMW-16S-070218	DMW-17S-070518	DMW-5S-071018
MSA-MW-18S-071018	MSA-MW-38S-071018	MSA-MW-39S-070218
MSA-MW-43S-070218	MSA-MW-53S-070218	

2/Aqueous/
Alkalinity, Ammonia, Chloride, Dissolved Organic Carbon, Nitrate, Nitrite, Phosphate, Sulfate, Total Dissolved Solids

MSA-MW-18I-070918	MSA-MW-18S-071018

4/Aqueous/
Radium-228, Total Alpha Radium

DMW-16D-070218	DMW-16I-070218	DMW-16S-070218
MSA-MW-29D-070918		

4/Trip Blanks/
VOC

TB-070218	TB-070518	TB-070918
TB-071018		

OVERVIEW

The sample set for MSA Groundwater Monitoring, SDG 240-97405-1, consists of fifteen (15) aqueous environmental samples and four (4) trip blanks. Samples were analyzed for volatile organic compounds (VOCs), haloacetic acids (HAAS), semivolatile organic compounds (SVOCs) (1,4-dioxane), dissolved gasses (OVG) including methane, ethane and ethene, gas range organics (C6-C10), diesel range organics (C10-C32), select total and dissolved metals, perchlorate, miscellaneous (alkalinity, ammonia, chloride, dissolved organic carbon, nitrate, nitrite, phosphate, sulfate and total dissolved solids), Radium-228 and total alpha radium as referenced above. The trip blanks were analyzed for VOCs. Additionally, VOC samples were analyzed for tentatively identified compounds (TICs). No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on July 2, 5, 9 and 10, 2018, and analyzed by Test America. Analyses were conducted in accordance to SW-846 Methods 8260C, 8270D, 8015C, 6020A, 6010C, 7470A, 9056A, 9060A, EPA Methods 552.2, 6850, 903.0 and 904.0, Standard Methods 2320B-1997, 4500 NH3 C1997, 2540C, 4500 P E-1999 and RSK-175 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, ICP/MS tuning, initial/continuing calibrations, laboratory method/trip/instrument blank results, ICP interference recoveries, surrogate spike recoveries, laboratory control sample / laboratory control sample duplicate results, matrix spike / matrix spike duplicate results, internal standard recoveries, carrier recoveries, compound identification, tentatively identified compounds, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- The laboratory case narrative indicates that all VOC samples were preserved with hydrochloric acid, and the VOC analyte 2-chloroethyl vinyl ether is an acid-labile compound that degrades in an acidic medium. The non-detected results for 2-chloroethyl vinyl ether were rejected (UR) in all VOC samples.

MINOR PROBLEMS

- The VOC initial calibration verification performed on 06/15/18 @ 12:35 on instrument A3UX11 had a percent difference (%D) that were greater than the 20% quality control limit for vinyl acetate. Samples MSA-MW-18S-071018, TB-071018, DMW-5S-071018, DMW-5I-071018 and MSA-MW-38S-071018 were affected. The non-detected results reported for vinyl acetate in the affected samples were qualified as estimated (UJ).

- The VOC continuing calibration verification performed on 07/19/18 @ 10:48 on instrument A3UX11 had %Ds that were greater than the 20% quality control limit for chlorodibromomethane, bromoform, n-butylbenzene and hexachlorobutadiene. Samples MSA-MW-18S-071018, TB-071018, DMW-5S-071018, DMW-5I-071018 and MSA-MW-38S-071018 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ).

- The VOC initial calibration performed on 07/06/18 on instrument A3UX16 had a percent relative standard deviation (%RSD) that were greater than the 20% quality control limit for hexachlorobutadiene. Samples TB-070218, DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218, MSA-MW-53I-070218, MSA-MW-39S-070218, MSA-MW-43S-070218, TB-070518, DMW-17S-070518 and DMW-17I-070518 were affected. The non-detected results reported for hexachlorobutadiene in the affected samples were qualified as estimated (UJ).

- The VOC initial calibration verification performed on 07/06/18 @ 21:52 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for 1,1-dichloroethene, vinyl acetate, cis-1,3-dichloropropene and hexachlorobutadiene. Samples TB-070218, DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218, MSA-MW-53I-070218, MSA-MW-39S-070218, MSA-MW-43S-070218, TB-070518, DMW-17S-070518 and DMW-17I-070518 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ).

- The VOC continuing calibration verification performed on 07/12/18 @ 9:25 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for dichlorodifluoromethane, hexachlorobutadiene and n-butylbenzene. Samples TB-070218, DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218 and MSA-MW-53I-070218 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ).

- The VOC continuing calibration verification performed on 07/13/18 @ 9:29 on instrument A3UX16 had %Ds that were greater than the 20% quality control limit for hexachlorobutadiene and n-butylbenzene. Samples MSA-MW-39S-070218, MSA-MW-43S-070218, TB-070518, DMW-17S-070518 and DMW-17I-070518 were affected. The non-detected results reported for the aforementioned compounds in the affected samples were qualified as estimated (UJ).

- The VOC initial calibration verification performed on 07/13/18 @ 15:00 on instrument A3UX19 had a %D that were greater than the 20% quality control limit for vinyl acetate. Samples MSA-MW-18I-070918, MSA-MW-29D-070918 and TB-070918 were affected. The non-detected results reported for vinyl acetate in the affected samples were qualified as estimated (UJ).

- The following VOC compounds were detected in the method/trip blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Acetone[1]	6.3 ug/L	< RL
Tert-butyl alcohol[1]	12 ug/L	< RL
2-Butanone[2]	7.3 ug/L	< RL
2-Hexanone[2]	0.87 ug/L	< RL
Acetone[2]	20 ug/L	> RL
Tert-butyl alcohol[2]	18 ug/L	< RL
Tert-butyl alcohol[3]	8.4 ug/L	< RL
2-Butanone[4]	1.5 ug/L	< RL
Trichloroethene[4]	0.33 ug/L	< RL
Unknown[4]	2 ug/L	

[1] Maximum concentration detected in trip blank, TB-070218, affecting samples DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-39S-070218, MSA-MW-43S-070218, MSA-MW-53I-070218 and MSA-MW-53S-070218

[2] Maximum concentration detected in trip blank, TB-070518, affecting samples DMW-17I-070518 and DMW-17S-070518.

[3] Maximum concentration detected in trip blank, TB-070918, affecting samples MSA-MW-18I-070918 and MSA-MW-29D-070918.

[4] Maximum concentration present in trip blank, TB-071018, affecting samples DMW-5I-071018, DMW-5S-071018, MSA-MW-18S-071018 and MSA-MW-38S-071018.

The detected results reported below the reporting limit (RL) for tert-butyl alcohol and trichloroethene were qualified as non-detected, (U). Trip blanks are not qualified for blank

contamination.

- The following TICs were detected. The GC/MS instrument was not calibrated for these TICs; therefore, the detected compounds were qualified as estimated (NJ) and assumed to be presumptively present.

Sample	TIC
DMW-16S-070218	1,4-dioxane
TB-071018	Unknown
MSA-MW-39S-070218	1,2-dimethyl naphthalene
	1,3-dimethyl naphthalene
	1,7-dimethyl naphthalene
TB-070518	3,3-dimethyl-2-butanone

- The VOC matrix spike (MS) %R for tert-butyl alcohol was below the quality control limit for sample DMW-5S-071018. The non-detected result reported for tert-butyl alcohol in the affected sample was qualified as estimated (UJ).

- The VOC matrix spike / matrix spike duplicate (MS/MSD) relative percent differences (RPDs) for 1,1,1-trichloroethane, 1,1-dichloroethene, carbon tetrachloride, dichlorodifluoromethane, trichlorofluoromethane and vinyl chloride were outside the quality control limits for sample DMW-5S-071018. The detected result reported for vinyl chloride was qualified as estimated (J).

- The HAAS RPD between GC columns exceeded 40% for compounds in the following sample:

Sample	Compound	RPD (%)
DMW-5S-071018	Dichloroacetic acid	45.8

The detected result reported for this compound was qualified as estimated, (J).

- The metals continuing calibrations performed on 07/19/18 @ 18:19 and 19:13 had percent recoveries (%Rs) for beryllium that were greater than the 110% quality control limit. Total and dissolved samples MSA-MW-18I-070918 and MSA-MW-29D-070918 were affected. The detected result reported for beryllium in the affected sample was qualified as estimated (J) as a result of conflicting noncompliances.

- The metals continuing calibrations performed on 07/10/18 @ 21:45, 22:53 and 23:57 had %Rs for beryllium that were greater than the 110% quality control limit. Total and dissolved samples DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218, MSA-MW-39S-070218 and total sample MSA-MW-43S-070218 were affected. The detected results reported for beryllium in the affected samples were qualified as estimated (J) as a result of conflicting noncompliances.

- The following contaminants were detected in a laboratory instrument/method blanks at the following maximum concentrations:

Contaminant	Maximum Concentration	Reporting Limit (RL) > or <
Beryllium(1)	0.341 ug/L	< RL
Lead(2)	0.491 ug/L	< RL
Silver(2)	0.0590 ug/L	< RL
Thallium(2)	0.224 ug/L	< RL
Cadmium(3)	0.294 ug/L	< RL
Cobalt(3)	0.347 ug/L	< RL
Lead(3)	0.798 ug/L	< RL
Alkalinity(4)	3.00 mg/L	< RL

Dissolved Organic Carbon[4]	0.674 mg/L	< RL

[1] Maximum concentration present in an instrument blank affecting total and dissolved sample DMW-17I-070518.
[2] Maximum concentration present in an instrument blank affecting total and dissolved samples DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218, MSA-MW-53I-070218, MSA-MW-39S-070218 and MSA-MW-43S-070218.
[3] Maximum concentration present in a method blank (preparation batch 240-335239) affecting total and dissolved samples DMA-17S-070518 and DMW-17I-070518.
[4] Maximum concentration present in a method blank.

The detected results reported below the reporting limit (RL) for beryllium, cadmium and lead were qualified as non-detected, (U).

- The metals MS/MSD %Rs for total antimony, iron, molybdenum and silver were below the quality control limit for sample DMW-17I-070518. No post digestion spike was included. Samples DMW-17I-070518 and DMW-17S-070518 were affected. The detected results reported for the aforementioned analytes were qualified as biased low (J-) or estimated (J), as a result of conflicting noncompliances. The nondetected results reported in the affected samples were qualified as estimated (UJ).

- The metals MSD %Rs for total and dissolved mercury were below the quality control limit for sample MSA-MW-18I-070918. Samples MSA-MW-18I-070918 and MSA-MW-29D-070918 were affected. The nondetected results reported for mercury in the affected samples were qualified as estimated (UJ).

- The ICP serial dilution %D for dissolved manganese was greater than the 10% quality control limit (sample result > 50X method detection limit) for sample MSA-MW-43S-070218. Samples DMW-16D-070218, DMW-16I-070218, DMW-16S-070218, MSA-MW-53S-070218, MSA-MW-53I-070218, MSA-MW-39S-070218 and MSA-MW-43S-070218 were affected. The detected results reported for dissolved manganese in the affected samples were qualified as estimated (J).

- The following metals internal standard recoveries were below the quality control limits:

Sample	Internal Standard	Analytes Affected
DMW-17I-070518 (dissolved)	Scandium-45	As, Be, Co, Cr, Fe, Mn, Ni Se, V
DMW-17S-070518 (total)	Scandium-45	As, Be, Co, Cr, Fe, Mn, Ni Se, V
DMW-17S-070518 (dissolved)	Scandium-45	As, Be, Co, Cr, Fe, Mn, Ni Se, V
DMW-16S-070218 (total)	Indium-115; Holium-165	As, Se, Mo, Ag, Cd, Sb, Ba Tl, Pb
DMW-16S-070218 (dissolved)	Indium-115; Holium-165	As, Se, Mo, Ag, Cd, Sb, Ba Tl, Pb
MSA-MW-53S-070218 (total)	Holium-165	Sb, Ba, Tl, Pb

The detected and nondetected results reported for the aforementioned compounds were qualified as estimated (J) and (UJ), respectively.

- It was noted in the case narrative that the perchlorate ion ratio for sample DMW-17I-070518 was outside the quality control limit. The laboratory reanalyzed the sample with similar results. The detected result reported for perchlorate in the affected sample was qualified as estimated (J).

- Sample results for Radium-228 with concentrations found to be less than the minimal detectable

concentrations (MDC) were qualified nondetected (U) by the laboratory.

- The following radiological parameters were detected in the laboratory method blank:

Isotope	Concentration
Total Alpha Radium (1)	0.2493 ± 0.178 pCi/L
Total Alpha Radium (2)	0.3081 ± 0.189 pCi/L

(1) Activity detected in the laboratory method blank, MB 160-374499/6-A, affecting samples DMW-16D-070218, DMW-16I-070218 and DMW-16S-070218.
(2) Activity detected in the laboratory method blank, MB 160-375078/4-A, affecting sample MSA-MW-29D-070918.

The mean difference of the blank activity and detected sample activity was calculated and used for the evaluation of blank contamination.
The mean differences were < 2 for samples DMW-16D-070218, DMW-16I-070218 and MSA-MW-29D-070918 indicating the sample results were not statically distinguishable from the laboratory method blank. The sample results were qualified as non-detected and estimated (UJ).
The mean difference was > 3 and the sample and blank results differ by a factor of less than 10 for sample DMW-16S-070218 indicating that the sample result may be impacted by blank contamination. The sample result was qualified as estimated (J)

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated (J).

NOTES

Nondetects were reported to the MDL.

The uncertainty for the sample results for Radium-228 and total alpha radium are reported at 2-sigma (95% confidence). The electronic deliverable does not contain the uncertainty result.

The following samples were analyzed at dilutions. Detection limits of the non-detected results were elevated.

Sample	Analysis	Dilution
DMW-16I-070218	VOC	40 X
MSA-MW-53I-070218	VOC	625 X
	1,4-Dioxane	10X
DMW-17I-070518	VOC	25 X
DMW-5S-071018	VOC	1000 X
	GRO	20 X
DMW-5I-071018	VOC	2 X
DMW-16S-070218	1,4-Dioxane	10 X
MSA-MW-53S-070218	1,4-Dioxane	4 X
MSA-MW-18I-070918	Iron	5 X

A TIC search was performed for the compound chlorodifluoromethane.

The metals continuing calibration performed on 07/20/18 @ 22:53 had a %R for beryllium that was greater than the 110% quality control limit. Dissolved sample MSA-MW-38S-071018 was affected. No validation

action was required as the sample result was nondetected.

It was noted that the VOC LCS was not analyzed for the following compounds: 1,2,3-trimethylbenzene, 1,2-dibromoethane, diisopropyl ether, ethyl tert-butyl ether and tert-amyl methyl ether. LCS recoveries could not be evaluated.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several initial calibration, initial calibration verification and continuing calibration %Ds were noncompliant for the VOC fraction. Several continuing calibration %Rs were noncompliant for the metals fraction. Contaminants were detected in the laboratory method/instrument blanks. Several MS and/or MSD %Rs and MS/MSD RPDs were outside the quality control limits for the VOC and metals analyses. One RPD between GC columns exceeded 40% for the HAAS fraction. One ICP serial dilution %D was greater than the 10% quality control limit. Several internal standard recoveries were outside the quality control limits for the metals fraction. The perchlorate ion ratio for sample DMW-17I-070518 was outside the quality control limit.

Other Factors Affecting Data Quality: Non-detected results for 2-chloroethyl vinyl ether were rejected due to preservation noncompliance. Several TICs were detected in the VOC fraction. Detected results reported below the RL but above the MDL were qualified as estimated. Sample results for Radium-228 below the MDC were qualified as nondetected.

The data for these analyses were reviewed with reference to the USEPA "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017) and the "National Functional Guidelines for Inorganic Superfund Methods Data Review" (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Terri Solomon
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Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		5.6	U		0.14	U		3.5	U	
1,1,1-TRICHLOROETHANE		0.24	U		9.6	U		0.24	U		6	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		5.2	U		0.13	U		3.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		16	U		0.41	U		10	U	
1,1-DICHLOROETHANE		0.17	U		6.8	U		0.17	U		4.3	U	
1,1-DICHLOROETHENE		0.19	UJ	C	7.6	UJ	C	0.19	UJ	C	4.8	UJ	C
1,1-DICHLOROPROPENE		0.14	U		5.6	U		0.14	U		3.5	U	
1,2,3-TRICHLOROBENZENE		0.54	U		22	U		0.54	U		14	U	
1,2,3-TRICHLOROPROPANE		0.24	U		9.6	U		0.24	U		6	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		5.6	U		0.14	U		3.5	U	
1,2,4-TRICHLOROBENZENE		0.26	U		10	U		0.38	J	P	6.5	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		2.8	U		0.07	U		1.8	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		36	U		0.91	U		23	U	
1,2-DIBROMOETHANE		0.12	U		4.8	U		0.12	U		3	U	
1,2-DICHLOROBENZENE		0.15	U		6	U		1.5			3.8	U	
1,2-DICHLOROETHANE		0.21	U		8.4	U		0.33	J	P	5.8	J	P
1,2-DICHLOROPROPANE		0.15	U		6	U		0.15	U		3.8	U	
1,3-DICHLOROBENZENE		0.15	U		6	U		0.45	J	P	3.8	U	
1,3-DICHLOROPROPANE		0.21	U		8.4	U		0.21	U		5.3	U	
1,4-DICHLOROBENZENE		0.16	U		6.4	U		0.39	J	P	4	U	
2,2-DICHLOROPROPANE		0.31	U		12	U		0.31	U		7.8	U	
2-BUTANONE		1.2	U		46	U		1.2	U		29	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	10	UR	M	0.26	UR	M	6.5	UR	M
2-CHLOROTOLUENE		0.15	U		6	U		0.15	U		3.8	U	
2-HEXANONE		0.54	U		22	U		0.54	U		14	U	
4-CHLOROTOLUENE		0.09	U		3.6	U		0.09	U		2.3	U	
4-ISOPROPYLTOLUENE		0.13	U		5.2	U		0.13	U		3.3	U	
4-METHYL-2-PENTANONE		0.42	U		17	U		0.42	U		11	U	
ACETONE		5.4	U		220	U		5.4	U		140	U	
BENZENE		0.13	U		5.2	U		6.6			3.3	U	
BROMOBENZENE		0.12	U		4.8	U		0.12	U		3	U	
BROMOCHLOROMETHANE		0.14	U		5.6	U		0.14	U		3.5	U	
BROMODICHLOROMETHANE		0.17	U		6.8	U		0.17	U		4.3	U	
BROMOFORM		0.76	U		30	U		0.76	U		19	U	
BROMOMETHANE		0.42	U		17	U		0.42	U		11	U	

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: OV	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.28	U		140	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.48	U		240	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.26	U		130	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.82	U		410	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.34	U		170	U		0.17	U	
1,1-DICHLOROETHENE		0.19	UJ	C	0.38	U		190	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.28	U		140	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		1.1	U		540	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.48	U		240	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.28	U		140	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.52	U		260	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.14	U		70	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		1.8	U		910	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.24	U		120	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.3	U		150	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.91	J	P	210	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.3	U		150	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.3	U		150	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.42	U		210	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.32	U		160	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.62	U		310	U		0.31	U	
2-BUTANONE		1.2	U		2.3	U		1200	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.52	UR	M	260	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.3	U		150	U		0.15	U	
2-HEXANONE		0.54	U		1.1	U		540	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.18	U		90	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.26	U		130	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.84	U		420	U		0.42	U	
ACETONE		5.4	U		11	U		5400	U		5.4	U	
BENZENE		0.13	U		0.26	U		130	U		0.13	U	
BROMOBENZENE		0.12	U		0.24	U		120	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.28	U		140	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.34	U		170	U		0.17	U	
BROMOFORM		0.76	U		1.5	UJ	C	760	UJ	C	0.76	U	
BROMOMETHANE		0.42	U		0.84	U		420	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: OV	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	UJ	C
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.22	J	P
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U		0.32	J	P
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.42	J	P
2-BUTANONE		1.2	U		1.2	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		0.54	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U		0.42	U	
ACETONE		19			5.4	U		5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U		1.3		
BROMOBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	UJ	C	0.76	U		0.76	UJ	C	0.76	U	
BROMOMETHANE		0.42	U		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218			TB-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5			240-98038-1		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		88	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		150	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		81	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		260	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		110	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	UJ	C	120	UJ	C	0.19	UJ	C	0.19	UJ	C
1,1-DICHLOROPROPENE		0.14	U		88	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		340	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		150	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		88	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		160	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		44	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		570	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		75	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		94	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		130	U		0.52	J	P	0.21	U	
1,2-DICHLOROPROPANE		0.15	U		94	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		94	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		130	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		100	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		190	U		0.31	U		0.31	U	
2-BUTANONE		1.2	U		730	U		1.2	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	160	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		94	U		0.15	U		0.15	U	
2-HEXANONE		0.54	U		340	U		0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		56	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		81	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		260	U		0.42	U		0.42	U	
ACETONE		5.4	U		3400	U		5.4	U		6.3	J	P
BENZENE		0.13	J	P	81	U		0.52	J	P	0.13	U	
BROMOBENZENE		0.12	U		75	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		88	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		110	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		480	U		0.76	U		0.76	U	
BROMOMETHANE		0.42	U		260	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	TB-070518			TB-070918			TB-071018		
SDG: 240-98038-1	LAB_ID	240-98135-1			240-98264-1			240-98352-1		
FRACTION: OV	SAMP_DATE	7/5/2018			7/9/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.14	U		0.14	U		0.14	U	
1,1,1-TRICHLOROETHANE		0.24	U		0.24	U		0.24	U	
1,1,2,2-TETRACHLOROETHANE		0.13	U		0.13	U		0.13	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.41	U		0.41	U		0.41	U	
1,1-DICHLOROETHANE		0.17	U		0.17	U		0.17	U	
1,1-DICHLOROETHENE		0.19	UJ	C	0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U	
1,2,3-TRICHLOROBENZENE		0.54	U		0.54	U		0.54	U	
1,2,3-TRICHLOROPROPANE		0.24	U		0.24	U		0.24	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.14	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.07	U		0.07	U		0.07	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.91	U		0.91	U		0.91	U	
1,2-DIBROMOETHANE		0.12	U		0.12	U		0.12	U	
1,2-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,2-DICHLOROETHANE		0.21	U		0.21	U		0.21	U	
1,2-DICHLOROPROPANE		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROBENZENE		0.15	U		0.15	U		0.15	U	
1,3-DICHLOROPROPANE		0.21	U		0.21	U		0.21	U	
1,4-DICHLOROBENZENE		0.16	U		0.16	U		0.16	U	
2,2-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U	
2-BUTANONE		7.3	J	P	1.2	U		1.5	J	P
2-CHLOROETHYL VINYL ETHER		0.26	UR	M	0.26	UR	M	0.26	UR	M
2-CHLOROTOLUENE		0.15	U		0.15	U		0.15	U	
2-HEXANONE		0.87	J	P	0.54	U		0.54	U	
4-CHLOROTOLUENE		0.09	U		0.09	U		0.09	U	
4-ISOPROPYLTOLUENE		0.13	U		0.13	U		0.13	U	
4-METHYL-2-PENTANONE		0.42	U		0.42	U		0.42	U	
ACETONE		20			5.4	U		5.4	U	
BENZENE		0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.12	U		0.12	U		0.12	U	
BROMOCHLOROMETHANE		0.14	U		0.14	U		0.14	U	
BROMODICHLOROMETHANE		0.17	U		0.17	U		0.17	U	
BROMOFORM		0.76	U		0.76	U		0.76	UJ	C
BROMOMETHANE		0.42	U		0.42	U		0.42	U	

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		11	U		0.28	U		7	U	
CARBON TETRACHLORIDE		0.26	U		10	U		0.26	U		6.5	U	
CHLOROBENZENE		0.14	U		5.6	U		0.63	J	P	3.5	U	
CHLORODIBROMOMETHANE		0.39	U		16	U		0.39	U		9.8	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	40	UJ	Q	1	UJ	Q	25	UJ	Q
CHLOROETHANE		0.83	U		33	U		0.83	U		21	U	
CHLOROFORM		0.13	U		5.2	U		0.13	U		3.3	U	
CHLOROMETHANE		0.2	U		8	U		0.2	U		5	U	
CIS-1,2-DICHLOROETHENE		0.16	U		250			6.2			990		
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	24	UJ	C	0.61	UJ	C	15	UJ	C
DIBROMOMETHANE		0.09	U		3.6	U		0.09	U		2.3	U	
DICHLORODIFLUOROMETHANE		0.35	UJ	C	14	UJ	C	0.35	UJ	C	8.8	U	
DIISOPROPYL ETHER		0.17	U		6.8	U		3	J	P	4.3	U	
ETHYL TERT-BUTYL ETHER		0.15	U		6	U		0.18	J	P	3.8	U	
ETHYLBENZENE		0.11	U		4.4	U		0.11	U		2.8	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	33	UJ	C	0.83	UJ	C	21	UJ	C
ISOPROPYLBENZENE		0.09	U		3.6	U		0.09	U		2.3	U	
M+P-XYLENES		0.08	U		3.2	U		0.08	U		2	U	
METHYL TERT-BUTYL ETHER		0.07	U		2.8	U		0.07	U		1.8	U	
METHYLENE CHLORIDE		2.6	U		100	U		2.6	U		66	U	
NAPHTHALENE		0.32	U		13	U		0.32	U		8	U	
N-BUTYLBENZENE		0.14	UJ	C	5.6	UJ	C	0.14	UJ	C	3.5	UJ	C
N-PROPYLBENZENE		0.15	U		6	U		0.15	U		3.8	U	
O-XYLENE		0.09	U		3.6	U		0.09	U		2.3	U	
SEC-BUTYLBENZENE		0.13	U		5.2	U		0.13	U		3.3	U	
STYRENE		0.1	U		4	U		0.1	U		2.5	U	
TERT-AMYL METHYL ETHER		0.11	U		4.4	U		0.11	U		2.8	U	
TERT-BUTYLBENZENE		0.14	U		5.6	U		0.14	U		3.5	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		68	U		9.6	U	B	42	U	
TETRACHLOROETHENE		0.15	U		6	U		0.15	U		3.8	U	
TOLUENE		0.14	U		5.6	U		0.14	U		3.5	U	
TOTAL XYLENES		0.15	U		6	U		0.15	U		3.8	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		7.6	U		0.19	U		4.8	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		27	U		0.67	U		17	U	
TRICHLOROETHENE		0.1	U		1200			0.1	U		510		

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: OV	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.56	J	P	280	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.52	U		260	U		0.26	U	
CHLOROBENZENE		0.14	U		0.66	J	P	140	U		0.24	J	P
CHLORODIBROMOMETHANE		0.39	U		0.78	UJ	C	390	UJ	C	0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	2	UJ	Q	1000	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		1.7	U		830	U		0.83	U	
CHLOROFORM		0.13	U		0.29	J	P	130	U		0.13	U	
CHLOROMETHANE		0.2	U		0.4	U		200	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.17	J	P	25			6100			5.7		
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	1.2	U		610	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.18	U		90	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.7	U		350	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.34	U		170	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.3	U		150	U		0.15	U	
ETHYLBENZENE		0.11	U		0.22	U		110	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	1.7	UJ	C	830	UJ	C	0.83	U	
ISOPROPYLBENZENE		0.09	U		0.18	U		90	U		0.09	U	
M+P-XYLENES		0.08	U		0.16	U		80	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.14	U		70	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		5.2	U		2600	U		2.6	U	
NAPHTHALENE		0.32	U		0.64	U		320	U		0.32	U	
N-BUTYLBENZENE		0.14	UJ	C	0.28	UJ	C	140	UJ	C	0.14	U	
N-PROPYLBENZENE		0.15	U		0.3	U		150	U		0.15	U	
O-XYLENE		0.09	U		0.18	U		90	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.26	U		130	U		0.13	U	
STYRENE		0.1	U		0.2	U		100	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.22	U		110	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.28	U		140	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		11	J	P	1700	UJ	D	1.7	U	
TETRACHLOROETHENE		0.15	U		0.3	U		150	U		0.15	U	
TOLUENE		0.14	U		0.28	U		140	U		0.14	U	
TOTAL XYLENES		0.15	U		0.3	U		150	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		1.3	J	P	190	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		1.3	U		670	U		0.67	U	
TRICHLOROETHENE		0.23	J	P	26			19000			7.4		

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: OV	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U		4.7		
CHLORODIBROMOMETHANE		0.39	UJ	C	0.39	U		0.39	UJ	C	0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		4.2			0.16	U		0.16	U		3.6		
CIS-1,3-DICHLOROPROPENE		0.61	U		0.61	U		0.61	U		0.61	UJ	C
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	U		0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	UJ	C	0.14	U		0.14	UJ	C	0.14	UJ	C
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.16	J	P
STYRENE		0.1	U		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	J	P
TERTIARY-BUTYL ALCOHOL		1.7	U		1.7	U		1.7	U		1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U		0.15	J	P
TOTAL XYLENES		0.15	U		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.25	J	P
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.63	U	B	0.1	U		0.15	U	B	3.2		

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218			TB-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5			240-98038-1		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		180	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		160	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		88	U		0.14	J	P	0.14	U	
CHLORODIBROMOMETHANE		0.39	U		240	U		0.39	U		0.39	U	
CHLORODIFLUOROMETHANE		1	UJ	Q	630	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		520	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		81	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		130	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.41	J	P	16000			4.5			0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	380	UJ	C	0.61	UJ	C	0.61	UJ	C
DIBROMOMETHANE		0.09	U		56	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		220	UJ	C	0.35	UJ	C	0.35	UJ	C
DIISOPROPYL ETHER		0.17	U		110	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		94	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		69	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	520	UJ	C	0.83	UJ	C	0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		56	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		50	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		44	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		1600	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		200	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	UJ	C	88	UJ	C	0.14	UJ	C	0.14	UJ	C
N-PROPYLBENZENE		0.15	U		94	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		56	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		81	U		0.13	U		0.13	U	
STYRENE		0.1	U		63	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		69	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		88	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		1.7	U		1100	U		7	U	B	12	J	P
TETRACHLOROETHENE		0.15	U		94	U		0.15	U		0.15	U	
TOLUENE		0.14	U		88	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		94	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		120	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		420	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		5600			1.8			0.1	U	

PROJ_NO: 08424	NSAMPLE	TB-070518			TB-070918			TB-071018		
SDG: 240-98038-1	LAB_ID	240-98135-1			240-98264-1			240-98352-1		
FRACTION: OV	SAMP_DATE	7/5/2018			7/9/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.28	U		0.28	U		0.28	U	
CARBON TETRACHLORIDE		0.26	U		0.26	U		0.26	U	
CHLOROBENZENE		0.14	U		0.14	U		0.14	U	
CHLORODIBROMOMETHANE		0.39	U		0.39	U		0.39	UJ	C
CHLORODIFLUOROMETHANE		1	UJ	Q	1	UJ	Q	1	UJ	Q
CHLOROETHANE		0.83	U		0.83	U		0.83	U	
CHLOROFORM		0.13	U		0.13	U		0.13	U	
CHLOROMETHANE		0.2	U		0.2	U		0.2	U	
CIS-1,2-DICHLOROETHENE		0.16	U		0.16	U		0.16	U	
CIS-1,3-DICHLOROPROPENE		0.61	UJ	C	0.61	U		0.61	U	
DIBROMOMETHANE		0.09	U		0.09	U		0.09	U	
DICHLORODIFLUOROMETHANE		0.35	U		0.35	U		0.35	U	
DIISOPROPYL ETHER		0.17	U		0.17	U		0.17	U	
ETHYL TERT-BUTYL ETHER		0.15	U		0.15	U		0.15	U	
ETHYLBENZENE		0.11	U		0.11	U		0.11	U	
HEXACHLOROBUTADIENE		0.83	UJ	C	0.83	U		0.83	UJ	C
ISOPROPYLBENZENE		0.09	U		0.09	U		0.09	U	
M+P-XYLENES		0.08	U		0.08	U		0.08	U	
METHYL TERT-BUTYL ETHER		0.07	U		0.07	U		0.07	U	
METHYLENE CHLORIDE		2.6	U		2.6	U		2.6	U	
NAPHTHALENE		0.32	U		0.32	U		0.32	U	
N-BUTYLBENZENE		0.14	UJ	C	0.14	U		0.14	UJ	C
N-PROPYLBENZENE		0.15	U		0.15	U		0.15	U	
O-XYLENE		0.09	U		0.09	U		0.09	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U	
STYRENE		0.1	U		0.1	U		0.1	U	
TERT-AMYL METHYL ETHER		0.11	U		0.11	U		0.11	U	
TERT-BUTYLBENZENE		0.14	U		0.14	U		0.14	U	
TERTIARY-BUTYL ALCOHOL		18	J	P	8.4	J	P	1.7	U	
TETRACHLOROETHENE		0.15	U		0.15	U		0.15	U	
TOLUENE		0.14	U		0.14	U		0.14	U	
TOTAL XYLENES		0.15	U		0.15	U		0.15	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.67	U		0.67	U		0.67	U	
TRICHLOROETHENE		0.1	U		0.1	U		0.33	J	P

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		18	U		0.45	U		11	U	
VINYL ACETATE		0.19	UJ	C	7.6	UJ	C	0.19	UJ	C	4.8	UJ	C
VINYL CHLORIDE		0.2	U		18	J	P	61			32		

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: OV	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.9	U		450	U		0.45	U	
VINYL ACETATE		0.19	UJ	C	0.38	UJ	C	190	UJ	C	0.19	UJ	C
VINYL CHLORIDE		0.2	U		3.5			350	J	DP	2.1		

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: OV	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	UJ	C	0.19	UJ	C	0.19	UJ	C	0.19	UJ	C
VINYL CHLORIDE		0.44	J	P	0.2	U		0.2	U		1.9		

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218			TB-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5			240-98038-1		
FRACTION: OV	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		280	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	UJ	C	120	UJ	C	0.19	UJ	C	0.19	UJ	C
VINYL CHLORIDE		0.2	U		5000			8.7			0.2	U	

PROJ_NO: 08424	NSAMPLE	TB-070518			TB-070918			TB-071018		
SDG: 240-98038-1	LAB_ID	240-98135-1			240-98264-1			240-98352-1		
FRACTION: OV	SAMP_DATE	7/5/2018			7/9/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	TB			TB			TB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TRICHLOROFLUOROMETHANE		0.45	U		0.45	U		0.45	U	
VINYL ACETATE		0.19	UJ	C	0.19	UJ	C	0.19	UJ	C
VINYL CHLORIDE		0.2	U		0.2	U		0.2	U	

PROJ_NO: 08424	NSAMPLE	DMW-16S-070218			MSA-MW-39S-070218			TB-070518			TB-071018		
SDG: 240-98038-1	LAB_ID	240-98038-4			240-98038-7			240-98135-1			240-98352-1		
FRACTION: TICOV	SAMP_DATE	7/2/2018			7/2/2018			7/5/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			TB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		2.9	NJ	Z1									
2-BUTANONE, 3,3-DIMETHYL-								2.1	NJ	Z1			
NAPHTHALENE, 1,2-DIMETHYL-					2.5	NJ	Z1						
NAPHTHALENE, 1,3-DIMETHYL-					3.2	NJ	Z1						
NAPHTHALENE, 1,7-DIMETHYL-					4.4	NJ	Z1						
UNKNOWN											2	NJ	Z1

PROJ_NO: 08424	NSAMPLE	DMW-5S-071018		
SDG: 240-98038-1	LAB_ID	240-98352-2		
FRACTION: OVGC	SAMP_DATE	7/10/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
BROMOACETIC ACID		0.75	U	
CHLOROACETIC ACID		0.4	U	
DIBROMOACETIC ACID		0.38	U	
DICHLOROACETIC ACID		2	J	U
TRICHLOROACETIC ACID		0.38	U	

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: OS	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.34	U		0.36	U		230			0.36	U	

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: OS	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		0.36	U		2.3			26			3		

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: OS	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		3.2			0.36	U		0.36	U		10		

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5		
FRACTION: OS	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		1.2			240			94		

PROJ_NO: 08424	NSAMPLE	MSA-MW-18I-070918			MSA-MW-18S-071018		
SDG: 240-98038-1	LAB_ID	240-98264-2			240-98320-1		
FRACTION: OVG	SAMP_DATE	7/9/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ETHANE		0.1	U		0.1	U	
ETHENE		0.11	U		0.11	U	
METHANE		370			170		

PROJ_NO: 08424	NSAMPLE	DMW-16S-070218			DMW-17S-070518			DMW-5S-071018			MSA-MW-18S-071018		
SDG: 240-98038-1	LAB_ID	240-98038-4			240-98135-2			240-98352-2			240-98320-1		
FRACTION: PET	SAMP_DATE	7/2/2018			7/5/2018			7/10/2018			7/10/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		85	J	P	49	U		15000			49	U	
TPH (C10-C32)		1300			200	J	P	630			690		

PROJ_NO: 08424	NSAMPLE	MSA-MW-38S-071018			MSA-MW-39S-070218			MSA-MW-43S-070218			MSA-MW-53S-070218		
SDG: 240-98038-1	LAB_ID	240-98352-4			240-98038-7			240-98038-8			240-98038-5		
FRACTION: PET	SAMP_DATE	7/10/2018			7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
TPH (C06-C10)		49	U		88	J	P	74	J	P	78	J	P
TPH (C10-C32)		210	U		2100			1300			520		

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: M	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	UJ	N	51	J-	D
ARSENIC		0.75	U		14			1.7	J	NP	52		
BARIUM		5.7			6.7			44	J	N	50		
BERYLLIUM		0.31	U		0.73	J	CP	0.31	U		51		
CADMIUM		0.21	U		0.32	J	P	0.21	UJ	N	49		
CALCIUM													
CHROMIUM		0.98	U		0.98	U		2.9			51		
COBALT		8.2			43			18			53		
COPPER		5.8			3			1.7	U		2.5		
IRON		150			3400			24000			13000	J-	D
LEAD		0.45	U		0.57	U	A	0.45	UJ	N	49		
MAGNESIUM													
MANGANESE		26			59			3100			250		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	UJ	N	49	J-	D
NICKEL		11			56			20			53		
POTASSIUM													
SELENIUM		0.89	U		0.89	U		0.89	UJ	N	50		
SILICON DIOXIDE													
SILVER		0.053	U		0.053	U		0.053	UJ	N	49	J-	D
SODIUM													
THALLIUM		0.2	U		0.2	U		0.2	UJ	N	49		
VANADIUM		0.82	U		0.82	U		2	J	P	50		

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: M	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.59	J	DP	0.57	U		0.57	U		0.57	U	
ARSENIC		6.5	J	N	0.75	U		0.75	U		1.7	J	P
BARIUM		68			16			14			100		
BERYLLIUM		0.67	J	NP	3			1.2			0.34	J	CP
CADMIUM		0.3	U	A	4.5			1.6			1.5		
CALCIUM											230000		
CHROMIUM		1.9	J	NP	4.7			2			2.5		
COBALT		7.6	J	N	96			82			1.9		
COPPER		3.3			150			20			1.9	J	P
IRON		16000	J	DN	660			63000			300000		
LEAD		1.4			3.6			0.72	J	P	0.45	U	
MAGNESIUM											210000		
MANGANESE		1400	J	N	1500			7000			3900		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	UJ	D
MOLYBDENUM		1.2	J	DP	1.1	U		1.1	U		1.8	J	P
NICKEL		62	J	N	88			53			3.2		
POTASSIUM											42000		
SELENIUM		0.89	UJ	N	6.7			9.2			1.4	J	P
SILICON DIOXIDE											29000		
SILVER		0.053	UJ	D	0.053	U		0.053	U		0.053	U	
SODIUM											450000		
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		4	J	NP	0.82	U		4.3	J	P	2.7	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: M	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.86	J	P	0.57	U		0.57	U		0.57	U	
ARSENIC		2.5	J	P	0.75	U		11			47		
BARIUM		180			4.3	J	P	38			27		
BERYLLIUM		0.36	J	P	0.31	U		0.68	J	P	0.31	U	
CADMIUM		0.42	J	P	0.21	U		0.21	U		0.21	U	
CALCIUM		170000											
CHROMIUM		6.6			0.98	U		1.1	J	P	1.2	J	P
COBALT		2.8			1.3			26			3.6		
COPPER		5.5			1.7	U		5.7			1.7	U	
IRON		110000			47	U		23000			49000		
LEAD		5			0.45	U		0.45	U		0.45	U	
MAGNESIUM		130000											
MANGANESE		1900			4.1	J	P	400			220		
MERCURY		0.13	U		0.13	UJ	D	0.13	U		0.13	U	
MOLYBDENUM		1.7	J	P	1.1	U		1.1	U		1.1	U	
NICKEL		8			1.5	U		16			2.5		
POTASSIUM		36000											
SELENIUM		1.5	J	P	0.89	U		0.89	U		0.89	U	
SILICON DIOXIDE		31000											
SILVER		0.066	J	P	0.053	U		0.053	U		0.053	U	
SODIUM		380000											
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		8.7			0.82	U		9.1			4.3	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5		
FRACTION: M	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	UJ	N
ARSENIC		1.1	J	P	6.8			9.3		
BARIUM		74			18			49	J	N
BERYLLIUM		0.31	U		3			0.31	U	
CADMIUM		0.21	U		130			0.21	U	
CALCIUM										
CHROMIUM		0.98	U		29			5.7		
COBALT		0.2	J	P	200			13		
COPPER		3.5			260			1.7	U	
IRON		650			17000			20000		
LEAD		0.45	U		0.46	U	A	0.45	UJ	N
MAGNESIUM										
MANGANESE		490			4200			430		
MERCURY		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		2.2	J	P
NICKEL		1.5	U		160			12		
POTASSIUM										
SELENIUM		0.89	U		12			0.89	U	
SILICON DIOXIDE										
SILVER		0.053	U		0.053	U		0.053	U	
SODIUM										
THALLIUM		0.2	U		0.2	U		0.2	UJ	N
VANADIUM		0.82	U		49			0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			DMW-17I-070518		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98135-3		
FRACTION: MF	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/5/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	UJ	N	0.57	U	
ARSENIC		0.75	U		13			1.7	J	NP	19	J	N
BARIUM		4.8	J	P	4.5	J	P	44	J	N	15		
BERYLLIUM		0.31	U		0.64	J	CP	0.31	U		0.73	U	A
CADMIUM		0.21	U		0.31	J	P	0.21	UJ	N	0.21	U	
CHROMIUM		0.98	U		0.98	U		2.9			0.98	UJ	N
COBALT		7.6			41			17			28	J	N
COPPER		7.7			2.4			3.9			1.7	U	
IRON		47	U		2800			25000			6200	J	N
LEAD		0.45	U		0.45	U		0.45	UJ	N	0.52	U	A
MANGANESE		18	J	I	54	J	I	3000	J	I	58	J	N
MERCURY		0.13	U		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	UJ	N	1.1	U	
NICKEL		10			52			19			35	J	N
SELENIUM		0.89	U		0.89	U		0.89	UJ	N	0.89	UJ	N
SILVER		0.053	U		0.053	U		0.053	UJ	N	0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	UJ	N	0.2	U	
VANADIUM		0.82	U		0.82	U		1.7	J	P	0.93	J	NP

PROJ_NO: 08424	NSAMPLE	DMW-17S-070518			DMW-5I-071018			DMW-5S-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98135-2			240-98352-3			240-98352-2			240-98264-2		
FRACTION: MF	SAMP_DATE	7/5/2018			7/10/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		6.1	J	N	0.75	U		0.75	U		1.3	J	P
BARIUM		64			16			13			110		
BERYLLIUM		0.43	J	NP	2.9			1.3			0.31	U	
CADMIUM		0.21	U		4.7			1.5			1.3		
CHROMIUM		1.1	J	NP	4.8			2			2		
COBALT		6.3	J	N	100			80			2.9		
COPPER		1.7	U		160			24			1.7	U	
IRON		15000	J	N	670			63000			290000		
LEAD		0.5	U	A	3.6			0.82	J	P	0.45	U	
MANGANESE		1200	J	N	1600			6900			3600		
MERCURY		0.13	U		0.13	U		0.13	U		0.13	UJ	D
MOLYBDENUM		1.1	J	P	1.1	U		1.1	U		1.6	J	P
NICKEL		55	J	N	93			52			3.5		
SELENIUM		0.89	UJ	N	6.8			8.6			1.1	J	P
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		3	J	NP	0.82	U		4.8	J	P	1.8	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-38S-071018			MSA-MW-39S-070218		
SDG: 240-98038-1	LAB_ID	240-98320-1			240-98264-3			240-98352-4			240-98038-7		
FRACTION: MF	SAMP_DATE	7/10/2018			7/9/2018			7/10/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U		0.57	U	
ARSENIC		1.5	J	P	0.75	U		8.3			37		
BARIUM		160			4.3	J	P	38			27		
BERYLLIUM		0.48	J	P	0.31	U		0.31	U		0.31	U	
CADMIUM		0.51	J	P	0.21	U		0.21	U		0.21	U	
CHROMIUM		1.6	J	P	0.98	U		0.98	U		0.98	U	
COBALT		2.3			1.4			20			3.7		
COPPER		1.7	U		1.7	U		1.7	U		1.7	U	
IRON		99000			47	U		22000			45000		
LEAD		0.56	J	P	0.45	U		0.45	U		0.45	U	
MANGANESE		1800			4.2	J	P	390			230	J	I
MERCURY		0.13	U		0.13	UJ	D	0.13	U		0.13	U	
MOLYBDENUM		1.4	J	P	1.1	U		1.1	U		1.1	U	
NICKEL		6.1			1.5	J	P	12			2		
SELENIUM		1.3	J	P	0.89	U		0.89	U		0.89	U	
SILVER		0.053	U		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U		0.2	U	
VANADIUM		2.2	J	P	0.82	U		0.82	U		1.8	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-43S-070218			MSA-MW-53I-070218			MSA-MW-53S-070218		
SDG: 240-98038-1	LAB_ID	240-98038-8			240-98038-6			240-98038-5		
FRACTION: MF	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.57	U		0.57	U		0.57	U	
ARSENIC		1.3	J	P	6.6			1.3	J	P
BARIUM		71			26			44		
BERYLLIUM		0.31	U		3			0.31	U	
CADMIUM		0.21	U		120			0.21	U	
CHROMIUM		0.98	U		29			1.7	J	P
COBALT		0.2	J	P	220			12		
COPPER		1.7	U		100			2.6		
IRON		1100			21000			9000		
LEAD		0.45	U		0.47	U	A	0.45	U	
MANGANESE		510	J	I	4100	J	I	380	J	I
MERCURY		0.13	U		0.13	U		0.13	U	
MOLYBDENUM		1.1	U		1.1	U		1.1	U	
NICKEL		1.5	U		180			11		
SELENIUM		0.89	U		12			0.89	U	
SILVER		0.053	U		0.053	U		0.053	U	
THALLIUM		0.2	U		0.2	U		0.2	U	
VANADIUM		0.82	U		47			0.82	U	

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-17I-070518			DMW-5I-071018			MSA-MW-18I-070918		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98135-3			240-98352-3			240-98264-2		
FRACTION: MISC	SAMP_DATE	7/2/2018			7/5/2018			7/10/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			MG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY											200		
AMMONIA											13		
CHLORIDE											440		
DISSOLVED ORGANIC CARBON											27		
NITRATE-N											0.028	U	
NITRITE-N											0.028	U	
PERCHLORATE		0.6			0.11	J	PQ	0.082	U				
PHOSPHATE											0.44		
SULFATE											1900		
TOTAL DISSOLVED SOLIDS											3700		

PROJ_NO: 08424	NSAMPLE	MSA-MW-18I-070918			MSA-MW-18S-071018			MSA-MW-29D-070918			MSA-MW-53I-070218		
SDG: 240-98038-1	LAB_ID	240-98264-2			240-98320-1			240-98264-3			240-98038-6		
FRACTION: MISC	SAMP_DATE	7/9/2018			7/10/2018			7/9/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			MG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALKALINITY					180								
AMMONIA					11								
CHLORIDE					480								
DISSOLVED ORGANIC CARBON					40								
NITRATE-N					0.014	U							
NITRITE-N					0.014	U							
PERCHLORATE		0.082	U					0.12	J	P	0.34	J	P
PHOSPHATE					0.68								
SULFATE					1100								
TOTAL DISSOLVED SOLIDS					2500								

PROJ_NO: 08424	NSAMPLE	MSA-MW-53S-070218		
SDG: 240-98038-1	LAB_ID	240-98038-5		
FRACTION: MISC	SAMP_DATE	7/2/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
ALKALINITY				
AMMONIA				
CHLORIDE				
DISSOLVED ORGANIC CARBON				
NITRATE-N				
NITRITE-N				
PERCHLORATE		0.082	U	
PHOSPHATE				
SULFATE				
TOTAL DISSOLVED SOLIDS				

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-16I-070218			DMW-16S-070218			MSA-MW-29D-070918		
SDG: 240-98038-1	LAB_ID	240-98038-2			240-98038-3			240-98038-4			240-98264-3		
FRACTION: RAD	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/9/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	PCI/L			PCI/L			PCI/L			PCI/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
RADIUM-228		0.33			0.103	U		0.617			0.308	U	
TOTAL ALPHA RADIUM		0.506	UJ	A	0.322	UJ	A	1.08	J	A	0.361	UJ	A

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070218 | Lab Sample ID: 240-98038-1

Matrix: Water | Lab File ID: UXM12612.D

Analysis Method: 8260C | Date Collected: 07/02/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	6.3	J	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070218 | Lab Sample ID: 240-98038-1

Matrix: Water | Lab File ID: UXM12612.D

Analysis Method: 8260C | Date Collected: 07/02/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	12	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070218 Lab Sample ID: 240-98038-1

Matrix: Water Lab File ID: UXM12612.D

Analysis Method: 8260C Date Collected: 07/02/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 18:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070218 Lab Sample ID: 240-98038-1

Matrix: Water Lab File ID: UXM12612.D

Analysis Method: 8260C Date Collected: 07/02/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 18:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070218 | Lab Sample ID: 240-98038-1

Matrix: Water | Lab File ID: UXM12612.D

Analysis Method: 8260C | Date Collected: 07/02/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 | Lab Sample ID: 240-98038-2

Matrix: Water | Lab File ID: UXM12613.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 | Lab Sample ID: 240-98038-2

Matrix: Water | Lab File ID: UXM12613.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 | Lab Sample ID: 240-98038-2

Matrix: Water | Lab File ID: UXM12613.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 18:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Matrix: Water Lab File ID: UXM12613.D

Analysis Method: 8260C Date Collected: 07/02/2018 09:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 18:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Matrix: Water Lab File ID: UXM12613.D

Analysis Method: 8260C Date Collected: 07/02/2018 09:00

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 18:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 | Lab Sample ID: 240-98038-3

Matrix: Water | Lab File ID: UXM12614.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:26

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:06

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	40	5.6
71-55-6	1,1,1-Trichloroethane	9.6	U	40	9.6
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	40	5.2
76-13-1	1,1,2-Trichlorotrifluoroethane	16	U	40	16
75-34-3	1,1-Dichloroethane	6.8	U	40	6.8
75-35-4	1,1-Dichloroethene	7.6	U	40	7.6
563-58-6	1,1-Dichloropropene	5.6	U	40	5.6
87-61-6	1,2,3-Trichlorobenzene	22	U	40	22
96-18-4	1,2,3-Trichloropropane	9.6	U	40	9.6
526-73-8	1,2,3-Trimethylbenzene	5.6	U	200	5.6
120-82-1	1,2,4-Trichlorobenzene	10	U	40	10
95-63-6	1,2,4-Trimethylbenzene	2.8	U	40	2.8
96-12-8	1,2-Dibromo-3-Chloropropane	36	U	80	36
95-50-1	1,2-Dichlorobenzene	6.0	U	40	6.0
107-06-2	1,2-Dichloroethane	8.4	U	40	8.4
78-87-5	1,2-Dichloropropane	6.0	U	40	6.0
541-73-1	1,3-Dichlorobenzene	6.0	U	40	6.0
142-28-9	1,3-Dichloropropane	8.4	U	40	8.4
106-46-7	1,4-Dichlorobenzene	6.4	U	40	6.4
594-20-7	2,2-Dichloropropane	12	U	40	12
78-93-3	2-Butanone (MEK)	46	U	400	46
110-75-8	2-Chloroethyl vinyl ether	10	U	400	10
95-49-8	2-Chlorotoluene	6.0	U	40	6.0
591-78-6	2-Hexanone	22	U	400	22
106-43-4	4-Chlorotoluene	3.6	U	40	3.6
99-87-6	4-Isopropyltoluene	5.2	U	40	5.2
108-10-1	4-Methyl-2-pentanone (MIBK)	17	U	400	17
67-64-1	Acetone	220	U	400	220
71-43-2	Benzene	5.2	U	40	5.2
108-86-1	Bromobenzene	4.8	U	40	4.8
75-25-2	Bromoform	30	U	40	30
74-83-9	Bromomethane	17	U	40	17
75-15-0	Carbon disulfide	11	U	40	11
56-23-5	Carbon tetrachloride	10	U	40	10
108-90-7	Chlorobenzene	5.6	U	40	5.6
124-48-1	Chlorodibromomethane	16	U	40	16

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 | Lab Sample ID: 240-98038-3

Matrix: Water | Lab File ID: UXM12614.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:26

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:06

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	33	U	40	33
67-66-3	Chloroform	5.2	U	40	5.2
74-87-3	Chloromethane	8.0	U	40	8.0
156-59-2	cis-1,2-Dichloroethene	250		40	6.4
10061-01-5	cis-1,3-Dichloropropene	24	U	40	24
74-95-3	Dibromomethane	3.6	U	40	3.6
74-97-5	Bromochloromethane	5.6	U	40	5.6
75-71-8	Dichlorodifluoromethane	14	U	40	14
75-27-4	Bromodichloromethane	6.8	U	40	6.8
75-65-0	tert-Butyl alcohol	68	U	2000	68
100-41-4	Ethylbenzene	4.4	U	40	4.4
87-68-3	Hexachlorobutadiene	33	U	40	33
108-20-3	Diisopropyl ether	6.8	U	400	6.8
98-82-8	Isopropylbenzene	3.6	U	40	3.6
1634-04-4	Methyl tert-butyl ether	2.8	U	40	2.8
75-09-2	Methylene Chloride	100	U	200	100
179601-23-1	m-Xylene & p-Xylene	3.2	U	80	3.2
91-20-3	Naphthalene	13	U	40	13
104-51-8	n-Butylbenzene	5.6	U	40	5.6
103-65-1	N-Propylbenzene	6.0	U	40	6.0
95-47-6	o-Xylene	3.6	U	40	3.6
135-98-8	sec-Butylbenzene	5.2	U	40	5.2
100-42-5	Styrene	4.0	U	40	4.0
994-05-8	Tert-amyl methyl ether	4.4	U	200	4.4
637-92-3	Ethyl tert-butyl ether	6.0	U	200	6.0
127-18-4	Tetrachloroethene	6.0	U	40	6.0
108-88-3	Toluene	5.6	U	40	5.6
156-60-5	trans-1,2-Dichloroethene	7.6	U	40	7.6
10061-02-6	trans-1,3-Dichloropropene	27	U	40	27
79-01-6	Trichloroethene	1200		40	4.0
75-69-4	Trichlorofluoromethane	18	U	40	18
108-05-4	Vinyl acetate	7.6	U	80	7.6
75-01-4	Vinyl chloride	18	J	40	8.0
1330-20-7	Xylenes, Total	6.0	U	80	6.0
98-06-6	tert-Butylbenzene	5.6	U	40	5.6
106-93-4	1,2-Dibromoethane	4.8	U	40	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 Lab Sample ID: 240-98038-3

Matrix: Water Lab File ID: UXM12614.D

Analysis Method: 8260C Date Collected: 07/02/2018 10:26

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 19:06

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 | Lab Sample ID: 240-98038-3

Matrix: Water | Lab File ID: UXM12614.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:26

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:06

Soil Aliquot Vol: | Dilution Factor: 40

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 Lab Sample ID: 240-98038-3

Matrix: Water Lab File ID: UXM12614.D

Analysis Method: 8260C Date Collected: 07/02/2018 10:26

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 19:06

Soil Aliquot Vol: Dilution Factor: 40

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		40	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: UXM12615.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.38	J	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	1.5		1.0	0.15
107-06-2	1,2-Dichloroethane	0.33	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.45	J	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.39	J	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	6.6		1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.63	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: UXM12615.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	6.2		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	9.6	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	3.0	J	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.18	J	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	61		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 Lab Sample ID: 240-98038-4

Matrix: Water Lab File ID: UXM12615.D

Analysis Method: 8260C Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 19:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: UXM12615.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.9

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
123-91-1	1,4-Dioxane	6.44	2.9	T J N	91%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: UXM12615.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: UXM12616.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.52	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.52	J	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: UXM12616.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	4.5		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	7.0	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	1.8		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	8.7		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 Lab Sample ID: 240-98038-5

Matrix: Water Lab File ID: UXM12616.D

Analysis Method: 8260C Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 19:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	88		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: UXM12616.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: UXM12616.D

Analysis Method: 8260C | Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 19:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 | Lab Sample ID: 240-98038-6

Matrix: Water | Lab File ID: UXM12617.D

Analysis Method: 8260C | Date Collected: 07/02/2018 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 20:17

Soil Aliquot Vol: | Dilution Factor: 625

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	88	U	630	88
71-55-6	1,1,1-Trichloroethane	150	U	630	150
79-34-5	1,1,2,2-Tetrachloroethane	81	U	630	81
76-13-1	1,1,2-Trichlorotrifluoroethane	260	U	630	260
75-34-3	1,1-Dichloroethane	110	U	630	110
75-35-4	1,1-Dichloroethene	120	U	630	120
563-58-6	1,1-Dichloropropene	88	U	630	88
87-61-6	1,2,3-Trichlorobenzene	340	U	630	340
96-18-4	1,2,3-Trichloropropane	150	U	630	150
526-73-8	1,2,3-Trimethylbenzene	88	U	3100	88
120-82-1	1,2,4-Trichlorobenzene	160	U	630	160
95-63-6	1,2,4-Trimethylbenzene	44	U	630	44
96-12-8	1,2-Dibromo-3-Chloropropane	570	U	1300	570
95-50-1	1,2-Dichlorobenzene	94	U	630	94
107-06-2	1,2-Dichloroethane	130	U	630	130
78-87-5	1,2-Dichloropropane	94	U	630	94
541-73-1	1,3-Dichlorobenzene	94	U	630	94
142-28-9	1,3-Dichloropropane	130	U	630	130
106-46-7	1,4-Dichlorobenzene	100	U	630	100
594-20-7	2,2-Dichloropropane	190	U	630	190
78-93-3	2-Butanone (MEK)	730	U	6300	730
110-75-8	2-Chloroethyl vinyl ether	160	U	6300	160
95-49-8	2-Chlorotoluene	94	U	630	94
591-78-6	2-Hexanone	340	U	6300	340
106-43-4	4-Chlorotoluene	56	U	630	56
99-87-6	4-Isopropyltoluene	81	U	630	81
108-10-1	4-Methyl-2-pentanone (MIBK)	260	U	6300	260
67-64-1	Acetone	3400	U	6300	3400
71-43-2	Benzene	81	U	630	81
108-86-1	Bromobenzene	75	U	630	75
75-25-2	Bromoform	480	U	630	480
74-83-9	Bromomethane	260	U	630	260
75-15-0	Carbon disulfide	180	U	630	180
56-23-5	Carbon tetrachloride	160	U	630	160
108-90-7	Chlorobenzene	88	U	630	88
124-48-1	Chlorodibromomethane	240	U	630	240

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 | Lab Sample ID: 240-98038-6

Matrix: Water | Lab File ID: UXM12617.D

Analysis Method: 8260C | Date Collected: 07/02/2018 13:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 20:17

Soil Aliquot Vol: | Dilution Factor: 625

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	520	U	630	520
67-66-3	Chloroform	81	U	630	81
74-87-3	Chloromethane	130	U	630	130
156-59-2	cis-1,2-Dichloroethene	16000		630	100
10061-01-5	cis-1,3-Dichloropropene	380	U	630	380
74-95-3	Dibromomethane	56	U	630	56
74-97-5	Bromochloromethane	88	U	630	88
75-71-8	Dichlorodifluoromethane	220	U	630	220
75-27-4	Bromodichloromethane	110	U	630	110
75-65-0	tert-Butyl alcohol	1100	U	31000	1100
100-41-4	Ethylbenzene	69	U	630	69
87-68-3	Hexachlorobutadiene	520	U	630	520
108-20-3	Diisopropyl ether	110	U	6300	110
98-82-8	Isopropylbenzene	56	U	630	56
1634-04-4	Methyl tert-butyl ether	44	U	630	44
75-09-2	Methylene Chloride	1600	U	3100	1600
179601-23-1	m-Xylene & p-Xylene	50	U	1300	50
91-20-3	Naphthalene	200	U	630	200
104-51-8	n-Butylbenzene	88	U	630	88
103-65-1	N-Propylbenzene	94	U	630	94
95-47-6	o-Xylene	56	U	630	56
135-98-8	sec-Butylbenzene	81	U	630	81
100-42-5	Styrene	63	U	630	63
994-05-8	Tert-amyl methyl ether	69	U	3100	69
637-92-3	Ethyl tert-butyl ether	94	U	3100	94
127-18-4	Tetrachloroethene	94	U	630	94
108-88-3	Toluene	88	U	630	88
156-60-5	trans-1,2-Dichloroethene	120	U	630	120
10061-02-6	trans-1,3-Dichloropropene	420	U	630	420
79-01-6	Trichloroethene	5600		630	63
75-69-4	Trichlorofluoromethane	280	U	630	280
108-05-4	Vinyl acetate	120	U	1300	120
75-01-4	Vinyl chloride	5000		630	130
1330-20-7	Xylenes, Total	94	U	1300	94
98-06-6	tert-Butylbenzene	88	U	630	88
106-93-4	1,2-Dibromoethane	75	U	630	75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Matrix: Water Lab File ID: UXM12617.D

Analysis Method: 8260C Date Collected: 07/02/2018 13:25

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 20:17

Soil Aliquot Vol: Dilution Factor: 625

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		73-120
1868-53-7	Dibromofluoromethane (Surr)	89		69-124
460-00-4	4-Bromofluorobenzene (Surr)	92		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Matrix: Water Lab File ID: UXM12617.D

Analysis Method: 8260C Date Collected: 07/02/2018 13:25

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 20:17

Soil Aliquot Vol: Dilution Factor: 625

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Matrix: Water Lab File ID: UXM12617.D

Analysis Method: 8260C Date Collected: 07/02/2018 13:25

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 20:17

Soil Aliquot Vol: Dilution Factor: 625

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		630	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: UXM12630.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.22	J	1.0	0.15
107-06-2	1,2-Dichloroethane	0.32	J	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.42	J	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	1.3		1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	4.7		1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: UXM12630.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	3.6		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.16	J	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.15	J	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.25	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	3.2		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	1.9		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	J	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 Lab Sample ID: 240-98038-7

Matrix: Water Lab File ID: UXM12630.D

Analysis Method: 8260C Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 14:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: UXM12630.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

Number TICs Found: 3 | TIC Result Total: 10.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
575-37-1	Naphthalene, 1,7-dimethyl-	11.23	4.4	T J N	96%
575-41-7	Naphthalene, 1,3-dimethyl-	11.91	3.2	T J N	97%
573-98-8	Naphthalene, 1,2-dimethyl-	12.36	2.5	T J N	91%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: UXM12630.D

Analysis Method: 8260C | Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: UXM12631.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	J	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: UXM12631.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.41	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 Lab Sample ID: 240-98038-8

Matrix: Water Lab File ID: UXM12631.D

Analysis Method: 8260C Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 14:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	85		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 Lab Sample ID: 240-98038-8

Matrix: Water Lab File ID: UXM12631.D

Analysis Method: 8260C Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 14:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: UXM12631.D

Analysis Method: 8260C | Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 14:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070518 | Lab Sample ID: 240-98135-1

Matrix: Water | Lab File ID: UXM12636.D

Analysis Method: 8260C | Date Collected: 07/05/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	7.3	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.87	J	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	20		10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070518 | Lab Sample ID: 240-98135-1

Matrix: Water | Lab File ID: UXM12636.D

Analysis Method: 8260C | Date Collected: 07/05/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	18	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070518 Lab Sample ID: 240-98135-1

Matrix: Water Lab File ID: UXM12636.D

Analysis Method: 8260C Date Collected: 07/05/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 16:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	86		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070518 | Lab Sample ID: 240-98135-1

Matrix: Water | Lab File ID: UXM12636.D

Analysis Method: 8260C | Date Collected: 07/05/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-97-8	2-Butanone, 3,3-dimethyl-	6.57	2.1	T J N	58%

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070518 | Lab Sample ID: 240-98135-1

Matrix: Water | Lab File ID: UXM12636.D

Analysis Method: 8260C | Date Collected: 07/05/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 16:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: UXM12637.D

Analysis Method: 8260C | Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: UXM12637.D

Analysis Method: 8260C | Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.17	J	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.23	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 Lab Sample ID: 240-98135-2

Matrix: Water Lab File ID: UXM12637.D

Analysis Method: 8260C Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 17:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	81		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: UXM12637.D

Analysis Method: 8260C | Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 Lab Sample ID: 240-98135-2

Matrix: Water Lab File ID: UXM12637.D

Analysis Method: 8260C Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 17:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 | Lab Sample ID: 240-98135-3

Matrix: Water | Lab File ID: UXM12638.D

Analysis Method: 8260C | Date Collected: 07/05/2018 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.5	U	25	3.5
71-55-6	1,1,1-Trichloroethane	6.0	U	25	6.0
79-34-5	1,1,2,2-Tetrachloroethane	3.3	U	25	3.3
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U	25	10
75-34-3	1,1-Dichloroethane	4.3	U	25	4.3
75-35-4	1,1-Dichloroethene	4.8	U	25	4.8
563-58-6	1,1-Dichloropropene	3.5	U	25	3.5
87-61-6	1,2,3-Trichlorobenzene	14	U	25	14
96-18-4	1,2,3-Trichloropropane	6.0	U	25	6.0
526-73-8	1,2,3-Trimethylbenzene	3.5	U	130	3.5
120-82-1	1,2,4-Trichlorobenzene	6.5	U	25	6.5
95-63-6	1,2,4-Trimethylbenzene	1.8	U	25	1.8
96-12-8	1,2-Dibromo-3-Chloropropane	23	U	50	23
95-50-1	1,2-Dichlorobenzene	3.8	U	25	3.8
107-06-2	1,2-Dichloroethane	5.8	J	25	5.3
78-87-5	1,2-Dichloropropane	3.8	U	25	3.8
541-73-1	1,3-Dichlorobenzene	3.8	U	25	3.8
142-28-9	1,3-Dichloropropane	5.3	U	25	5.3
106-46-7	1,4-Dichlorobenzene	4.0	U	25	4.0
594-20-7	2,2-Dichloropropane	7.8	U	25	7.8
78-93-3	2-Butanone (MEK)	29	U	250	29
110-75-8	2-Chloroethyl vinyl ether	6.5	U	250	6.5
95-49-8	2-Chlorotoluene	3.8	U	25	3.8
591-78-6	2-Hexanone	14	U	250	14
106-43-4	4-Chlorotoluene	2.3	U	25	2.3
99-87-6	4-Isopropyltoluene	3.3	U	25	3.3
108-10-1	4-Methyl-2-pentanone (MIBK)	11	U	250	11
67-64-1	Acetone	140	U	250	140
71-43-2	Benzene	3.3	U	25	3.3
108-86-1	Bromobenzene	3.0	U	25	3.0
75-25-2	Bromoform	19	U	25	19
74-83-9	Bromomethane	11	U	25	11
75-15-0	Carbon disulfide	7.0	U	25	7.0
56-23-5	Carbon tetrachloride	6.5	U	25	6.5
108-90-7	Chlorobenzene	3.5	U	25	3.5
124-48-1	Chlorodibromomethane	9.8	U	25	9.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 | Lab Sample ID: 240-98135-3

Matrix: Water | Lab File ID: UXM12638.D

Analysis Method: 8260C | Date Collected: 07/05/2018 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	21	U	25	21
67-66-3	Chloroform	3.3	U	25	3.3
74-87-3	Chloromethane	5.0	U	25	5.0
156-59-2	cis-1,2-Dichloroethene	990		25	4.0
10061-01-5	cis-1,3-Dichloropropene	15	U	25	15
74-95-3	Dibromomethane	2.3	U	25	2.3
74-97-5	Bromochloromethane	3.5	U	25	3.5
75-71-8	Dichlorodifluoromethane	8.8	U	25	8.8
75-27-4	Bromodichloromethane	4.3	U	25	4.3
75-65-0	tert-Butyl alcohol	42	U	1300	42
100-41-4	Ethylbenzene	2.8	U	25	2.8
87-68-3	Hexachlorobutadiene	21	U	25	21
108-20-3	Diisopropyl ether	4.3	U	250	4.3
98-82-8	Isopropylbenzene	2.3	U	25	2.3
1634-04-4	Methyl tert-butyl ether	1.8	U	25	1.8
75-09-2	Methylene Chloride	66	U	130	66
179601-23-1	m-Xylene & p-Xylene	2.0	U	50	2.0
91-20-3	Naphthalene	8.0	U	25	8.0
104-51-8	n-Butylbenzene	3.5	U	25	3.5
103-65-1	N-Propylbenzene	3.8	U	25	3.8
95-47-6	o-Xylene	2.3	U	25	2.3
135-98-8	sec-Butylbenzene	3.3	U	25	3.3
100-42-5	Styrene	2.5	U	25	2.5
994-05-8	Tert-amyl methyl ether	2.8	U	130	2.8
637-92-3	Ethyl tert-butyl ether	3.8	U	130	3.8
127-18-4	Tetrachloroethene	3.8	U	25	3.8
108-88-3	Toluene	3.5	U	25	3.5
156-60-5	trans-1,2-Dichloroethene	4.8	U	25	4.8
10061-02-6	trans-1,3-Dichloropropene	17	U	25	17
79-01-6	Trichloroethene	510		25	2.5
75-69-4	Trichlorofluoromethane	11	U	25	11
108-05-4	Vinyl acetate	4.8	U	50	4.8
75-01-4	Vinyl chloride	32		25	5.0
1330-20-7	Xylenes, Total	3.8	U	50	3.8
98-06-6	tert-Butylbenzene	3.5	U	25	3.5
106-93-4	1,2-Dibromoethane	3.0	U	25	3.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 Lab Sample ID: 240-98135-3

Matrix: Water Lab File ID: UXM12638.D

Analysis Method: 8260C Date Collected: 07/05/2018 10:14

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 17:34

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	85		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 | Lab Sample ID: 240-98135-3

Matrix: Water | Lab File ID: UXM12638.D

Analysis Method: 8260C | Date Collected: 07/05/2018 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 | Lab Sample ID: 240-98135-3

Matrix: Water | Lab File ID: UXM12638.D

Analysis Method: 8260C | Date Collected: 07/05/2018 10:14

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 17:34

Soil Aliquot Vol: | Dilution Factor: 25

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		25	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070918 | Lab Sample ID: 240-98264-1

Matrix: Water | Lab File ID: U1900639.d

Analysis Method: 8260C | Date Collected: 07/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070918 | Lab Sample ID: 240-98264-1

Matrix: Water | Lab File ID: U1900639.d

Analysis Method: 8260C | Date Collected: 07/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	8.4	J	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070918 Lab Sample ID: 240-98264-1

Matrix: Water Lab File ID: U1900639.d

Analysis Method: 8260C Date Collected: 07/09/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 16:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		69-124
460-00-4	4-Bromofluorobenzene (Surr)	106		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070918 | Lab Sample ID: 240-98264-1

Matrix: Water | Lab File ID: U1900639.d

Analysis Method: 8260C | Date Collected: 07/09/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-070918 Lab Sample ID: 240-98264-1

Matrix: Water Lab File ID: U1900639.d

Analysis Method: 8260C Date Collected: 07/09/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 16:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 | Lab Sample ID: 240-98264-2

Matrix: Water | Lab File ID: U1900640.d

Analysis Method: 8260C | Date Collected: 07/09/2018 09:36

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.24	J	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 | Lab Sample ID: 240-98264-2

Matrix: Water | Lab File ID: U1900640.d

Analysis Method: 8260C | Date Collected: 07/09/2018 09:36

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	5.7		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	7.4		1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	2.1		1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Matrix: Water Lab File ID: U1900640.d

Analysis Method: 8260C Date Collected: 07/09/2018 09:36

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 16:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		73-120
1868-53-7	Dibromofluoromethane (Surr)	102		69-124
460-00-4	4-Bromofluorobenzene (Surr)	110		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 | Lab Sample ID: 240-98264-2

Matrix: Water | Lab File ID: U1900640.d

Analysis Method: 8260C | Date Collected: 07/09/2018 09:36

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 16:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Matrix: Water Lab File ID: U1900640.d

Analysis Method: 8260C Date Collected: 07/09/2018 09:36

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 16:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 | Lab Sample ID: 240-98264-3

Matrix: Water | Lab File ID: U1900641.d

Analysis Method: 8260C | Date Collected: 07/09/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 | Lab Sample ID: 240-98264-3

Matrix: Water | Lab File ID: U1900641.d

Analysis Method: 8260C | Date Collected: 07/09/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Matrix: Water Lab File ID: U1900641.d

Analysis Method: 8260C Date Collected: 07/09/2018 14:50

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 17:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		69-124
460-00-4	4-Bromofluorobenzene (Surr)	103		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Matrix: Water Lab File ID: U1900641.d

Analysis Method: 8260C Date Collected: 07/09/2018 14:50

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 17:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 | Lab Sample ID: 240-98264-3

Matrix: Water | Lab File ID: U1900641.d

Analysis Method: 8260C | Date Collected: 07/09/2018 14:50

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 17:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: UXJ3118.D

Analysis Method: 8260C | Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 16:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	19		10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: UXJ3118.D

Analysis Method: 8260C | Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 16:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	4.2		1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.63	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.44	J	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Matrix: Water Lab File ID: UXJ3118.D

Analysis Method: 8260C Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Matrix: Water Lab File ID: UXJ3118.D

Analysis Method: 8260C Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Matrix: Water Lab File ID: UXJ3118.D

Analysis Method: 8260C Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 16:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-071018 | Lab Sample ID: 240-98352-1

Matrix: Water | Lab File ID: UXJ3112.D

Analysis Method: 8260C | Date Collected: 07/10/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.5	J	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-071018 | Lab Sample ID: 240-98352-1

Matrix: Water | Lab File ID: UXJ3112.D

Analysis Method: 8260C | Date Collected: 07/10/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.33	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-071018 Lab Sample ID: 240-98352-1

Matrix: Water Lab File ID: UXJ3112.D

Analysis Method: 8260C Date Collected: 07/10/2018 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 13:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-071018 | Lab Sample ID: 240-98352-1

Matrix: Water | Lab File ID: UXJ3112.D

Analysis Method: 8260C | Date Collected: 07/10/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Unknown	3.07	2.0	T J	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: TB-071018 | Lab Sample ID: 240-98352-1

Matrix: Water | Lab File ID: UXJ3112.D

Analysis Method: 8260C | Date Collected: 07/10/2018 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: UXJ3113.D

Analysis Method: 8260C | Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 14:14

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	140	U	1000	140
71-55-6	1,1,1-Trichloroethane	240	U F2	1000	240
79-34-5	1,1,2,2-Tetrachloroethane	130	U	1000	130
76-13-1	1,1,2-Trichlorotrifluoroethane	410	U	1000	410
75-34-3	1,1-Dichloroethane	170	U	1000	170
75-35-4	1,1-Dichloroethene	190	U F2	1000	190
563-58-6	1,1-Dichloropropene	140	U	1000	140
87-61-6	1,2,3-Trichlorobenzene	540	U	1000	540
96-18-4	1,2,3-Trichloropropane	240	U	1000	240
526-73-8	1,2,3-Trimethylbenzene	140	U	5000	140
120-82-1	1,2,4-Trichlorobenzene	260	U	1000	260
95-63-6	1,2,4-Trimethylbenzene	70	U	1000	70
96-12-8	1,2-Dibromo-3-Chloropropane	910	U	2000	910
95-50-1	1,2-Dichlorobenzene	150	U	1000	150
107-06-2	1,2-Dichloroethane	210	U	1000	210
78-87-5	1,2-Dichloropropane	150	U	1000	150
541-73-1	1,3-Dichlorobenzene	150	U	1000	150
142-28-9	1,3-Dichloropropane	210	U	1000	210
106-46-7	1,4-Dichlorobenzene	160	U	1000	160
594-20-7	2,2-Dichloropropane	310	U	1000	310
78-93-3	2-Butanone (MEK)	1200	U	10000	1200
110-75-8	2-Chloroethyl vinyl ether	260	U	10000	260
95-49-8	2-Chlorotoluene	150	U	1000	150
591-78-6	2-Hexanone	540	U	10000	540
106-43-4	4-Chlorotoluene	90	U	1000	90
99-87-6	4-Isopropyltoluene	130	U	1000	130
108-10-1	4-Methyl-2-pentanone (MIBK)	420	U	10000	420
67-64-1	Acetone	5400	U	10000	5400
71-43-2	Benzene	130	U	1000	130
108-86-1	Bromobenzene	120	U	1000	120
75-25-2	Bromoform	760	U	1000	760
74-83-9	Bromomethane	420	U	1000	420
75-15-0	Carbon disulfide	280	U	1000	280
56-23-5	Carbon tetrachloride	260	U F2	1000	260
108-90-7	Chlorobenzene	140	U	1000	140
124-48-1	Chlorodibromomethane	390	U	1000	390

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: UXJ3113.D

Analysis Method: 8260C | Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 14:14

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	830	U	1000	830
67-66-3	Chloroform	130	U	1000	130
74-87-3	Chloromethane	200	U	1000	200
156-59-2	cis-1,2-Dichloroethene	6100		1000	160
10061-01-5	cis-1,3-Dichloropropene	610	U	1000	610
74-95-3	Dibromomethane	90	U	1000	90
74-97-5	Bromochloromethane	140	U	1000	140
75-71-8	Dichlorodifluoromethane	350	U F2	1000	350
75-27-4	Bromodichloromethane	170	U	1000	170
75-65-0	tert-Butyl alcohol	1700	U F1	50000	1700
100-41-4	Ethylbenzene	110	U	1000	110
87-68-3	Hexachlorobutadiene	830	U	1000	830
108-20-3	Diisopropyl ether	170	U	10000	170
98-82-8	Isopropylbenzene	90	U	1000	90
1634-04-4	Methyl tert-butyl ether	70	U	1000	70
75-09-2	Methylene Chloride	2600	U	5000	2600
179601-23-1	m-Xylene & p-Xylene	80	U	2000	80
91-20-3	Naphthalene	320	U	1000	320
104-51-8	n-Butylbenzene	140	U	1000	140
103-65-1	N-Propylbenzene	150	U	1000	150
95-47-6	o-Xylene	90	U	1000	90
135-98-8	sec-Butylbenzene	130	U	1000	130
100-42-5	Styrene	100	U	1000	100
994-05-8	Tert-amyl methyl ether	110	U	5000	110
637-92-3	Ethyl tert-butyl ether	150	U	5000	150
127-18-4	Tetrachloroethene	150	U	1000	150
108-88-3	Toluene	140	U	1000	140
156-60-5	trans-1,2-Dichloroethene	190	U	1000	190
10061-02-6	trans-1,3-Dichloropropene	670	U	1000	670
79-01-6	Trichloroethene	19000		1000	100
75-69-4	Trichlorofluoromethane	450	U F2	1000	450
108-05-4	Vinyl acetate	190	U	2000	190
75-01-4	Vinyl chloride	350	J F2	1000	200
1330-20-7	Xylenes, Total	150	U	2000	150
98-06-6	tert-Butylbenzene	140	U	1000	140
106-93-4	1,2-Dibromoethane	120	U	1000	120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 Lab Sample ID: 240-98352-2

Matrix: Water Lab File ID: UXJ3113.D

Analysis Method: 8260C Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 14:14

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: UXJ3113.D

Analysis Method: 8260C | Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 14:14

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: UXJ3113.D

Analysis Method: 8260C | Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 14:14

Soil Aliquot Vol: | Dilution Factor: 1000

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1000	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 | Lab Sample ID: 240-98352-3

Matrix: Water | Lab File ID: UXJ3116.D

Analysis Method: 8260C | Date Collected: 07/10/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:23

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.28	U	2.0	0.28
71-55-6	1,1,1-Trichloroethane	0.48	U	2.0	0.48
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	2.0	0.26
76-13-1	1,1,2-Trichlorotrifluoroethane	0.82	U	2.0	0.82
75-34-3	1,1-Dichloroethane	0.34	U	2.0	0.34
75-35-4	1,1-Dichloroethene	0.38	U	2.0	0.38
563-58-6	1,1-Dichloropropene	0.28	U	2.0	0.28
87-61-6	1,2,3-Trichlorobenzene	1.1	U	2.0	1.1
96-18-4	1,2,3-Trichloropropane	0.48	U	2.0	0.48
526-73-8	1,2,3-Trimethylbenzene	0.28	U	10	0.28
120-82-1	1,2,4-Trichlorobenzene	0.52	U	2.0	0.52
95-63-6	1,2,4-Trimethylbenzene	0.14	U	2.0	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	1.8	U	4.0	1.8
95-50-1	1,2-Dichlorobenzene	0.30	U	2.0	0.30
107-06-2	1,2-Dichloroethane	0.91	J	2.0	0.42
78-87-5	1,2-Dichloropropane	0.30	U	2.0	0.30
541-73-1	1,3-Dichlorobenzene	0.30	U	2.0	0.30
142-28-9	1,3-Dichloropropane	0.42	U	2.0	0.42
106-46-7	1,4-Dichlorobenzene	0.32	U	2.0	0.32
594-20-7	2,2-Dichloropropane	0.62	U	2.0	0.62
78-93-3	2-Butanone (MEK)	2.3	U	20	2.3
110-75-8	2-Chloroethyl vinyl ether	0.52	U	20	0.52
95-49-8	2-Chlorotoluene	0.30	U	2.0	0.30
591-78-6	2-Hexanone	1.1	U	20	1.1
106-43-4	4-Chlorotoluene	0.18	U	2.0	0.18
99-87-6	4-Isopropyltoluene	0.26	U	2.0	0.26
108-10-1	4-Methyl-2-pentanone (MIBK)	0.84	U	20	0.84
67-64-1	Acetone	11	U	20	11
71-43-2	Benzene	0.26	U	2.0	0.26
108-86-1	Bromobenzene	0.24	U	2.0	0.24
75-25-2	Bromoform	1.5	U	2.0	1.5
74-83-9	Bromomethane	0.84	U	2.0	0.84
75-15-0	Carbon disulfide	0.56	J	2.0	0.56
56-23-5	Carbon tetrachloride	0.52	U	2.0	0.52
108-90-7	Chlorobenzene	0.66	J	2.0	0.28
124-48-1	Chlorodibromomethane	0.78	U	2.0	0.78

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 | Lab Sample ID: 240-98352-3

Matrix: Water | Lab File ID: UXJ3116.D

Analysis Method: 8260C | Date Collected: 07/10/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:23

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	1.7	U	2.0	1.7
67-66-3	Chloroform	0.29	J	2.0	0.26
74-87-3	Chloromethane	0.40	U	2.0	0.40
156-59-2	cis-1,2-Dichloroethene	25		2.0	0.32
10061-01-5	cis-1,3-Dichloropropene	1.2	U	2.0	1.2
74-95-3	Dibromomethane	0.18	U	2.0	0.18
74-97-5	Bromochloromethane	0.28	U	2.0	0.28
75-71-8	Dichlorodifluoromethane	0.70	U	2.0	0.70
75-27-4	Bromodichloromethane	0.34	U	2.0	0.34
75-65-0	tert-Butyl alcohol	11	J	100	3.4
100-41-4	Ethylbenzene	0.22	U	2.0	0.22
87-68-3	Hexachlorobutadiene	1.7	U	2.0	1.7
108-20-3	Diisopropyl ether	0.34	U	20	0.34
98-82-8	Isopropylbenzene	0.18	U	2.0	0.18
1634-04-4	Methyl tert-butyl ether	0.14	U	2.0	0.14
75-09-2	Methylene Chloride	5.2	U	10	5.2
179601-23-1	m-Xylene & p-Xylene	0.16	U	4.0	0.16
91-20-3	Naphthalene	0.64	U	2.0	0.64
104-51-8	n-Butylbenzene	0.28	U	2.0	0.28
103-65-1	N-Propylbenzene	0.30	U	2.0	0.30
95-47-6	o-Xylene	0.18	U	2.0	0.18
135-98-8	sec-Butylbenzene	0.26	U	2.0	0.26
100-42-5	Styrene	0.20	U	2.0	0.20
994-05-8	Tert-amyl methyl ether	0.22	U	10	0.22
637-92-3	Ethyl tert-butyl ether	0.30	U	10	0.30
127-18-4	Tetrachloroethene	0.30	U	2.0	0.30
108-88-3	Toluene	0.28	U	2.0	0.28
156-60-5	trans-1,2-Dichloroethene	1.3	J	2.0	0.38
10061-02-6	trans-1,3-Dichloropropene	1.3	U	2.0	1.3
79-01-6	Trichloroethene	26		2.0	0.20
75-69-4	Trichlorofluoromethane	0.90	U	2.0	0.90
108-05-4	Vinyl acetate	0.38	U	4.0	0.38
75-01-4	Vinyl chloride	3.5		2.0	0.40
1330-20-7	Xylenes, Total	0.30	U	4.0	0.30
98-06-6	tert-Butylbenzene	0.28	U	2.0	0.28
106-93-4	1,2-Dibromoethane	0.24	U	2.0	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 Lab Sample ID: 240-98352-3

Matrix: Water Lab File ID: UXJ3116.D

Analysis Method: 8260C Date Collected: 07/10/2018 11:20

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 15:23

Soil Aliquot Vol: Dilution Factor: 2

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	94		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 | Lab Sample ID: 240-98352-3

Matrix: Water | Lab File ID: UXJ3116.D

Analysis Method: 8260C | Date Collected: 07/10/2018 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:23

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 Lab Sample ID: 240-98352-3

Matrix: Water Lab File ID: UXJ3116.D

Analysis Method: 8260C Date Collected: 07/10/2018 11:20

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 15:23

Soil Aliquot Vol: Dilution Factor: 2

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		2.0	U	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: UXJ3117.D

Analysis Method: 8260C | Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: UXJ3117.D

Analysis Method: 8260C | Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.15	J	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 Lab Sample ID: 240-98352-4

Matrix: Water Lab File ID: UXJ3117.D

Analysis Method: 8260C Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 15:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		69-124
460-00-4	4-Bromofluorobenzene (Surr)	89		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: UXJ3117.D

Analysis Method: 8260C | Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 15:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 Lab Sample ID: 240-98352-4

Matrix: Water Lab File ID: UXJ3117.D

Analysis Method: 8260C Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 15:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: YG17012.D

Analysis Method: 552.2 | Date Collected: 07/10/2018 09:20

Extraction Method: 552.2 | Date Extracted: 07/17/2018 07:05

Sample wt/vol: 40(mL) | Date Analyzed: 07/17/2018 20:46

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: YG17012.D

Analysis Method: 552.2 | Date Collected: 07/10/2018 09:20

Extraction Method: 552.2 | Date Extracted: 07/17/2018 07:05

Sample wt/vol: 40(mL) | Date Analyzed: 07/17/2018 20:46

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-43-6	Dichloroacetic acid	2.0	p	1.0	0.98

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	117		70-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 | Lab Sample ID: 240-98038-2

Matrix: Water | Lab File ID: 80711005.D

Analysis Method: 8270D | Date Collected: 07/02/2018 09:00

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 280(mL) | Date Analyzed: 07/11/2018 08:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.34	U	0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		28-128
4165-62-2	Phenol-d5 (Surr)	43		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	50		35-120
367-12-4	2-Fluorophenol (Surr)	45		17-120
321-60-8	2-Fluorobiphenyl (Surr)	52		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	56		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16I-070218 | Lab Sample ID: 240-98038-3

Matrix: Water | Lab File ID: 80711006.D

Analysis Method: 8270D | Date Collected: 07/02/2018 10:26

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 270(mL) | Date Analyzed: 07/11/2018 08:30

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		28-128
4165-62-2	Phenol-d5 (Surr)	54		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	60		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	69		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: 80711017.D

Analysis Method: 8270D | Date Collected: 07/02/2018 11:40

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 270(mL) | Date Analyzed: 07/11/2018 13:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	230		9.3	3.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	83		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-120
367-12-4	2-Fluorophenol (Surr)	53		17-120
321-60-8	2-Fluorobiphenyl (Surr)	68		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	72		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: 80711018.D

Analysis Method: 8270D | Date Collected: 07/02/2018 11:55

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 220(mL) | Date Analyzed: 07/11/2018 13:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 4

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	94		4.5	1.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		28-128
4165-62-2	Phenol-d5 (Surr)	46		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	57		35-120
367-12-4	2-Fluorophenol (Surr)	47		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	68		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 | Lab Sample ID: 240-98038-6

Matrix: Water | Lab File ID: 80711019.D

Analysis Method: 8270D | Date Collected: 07/02/2018 13:25

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 250(mL) | Date Analyzed: 07/11/2018 13:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	240		10	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	102		28-128
4165-62-2	Phenol-d5 (Surr)	70		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	78		35-120
367-12-4	2-Fluorophenol (Surr)	64		17-120
321-60-8	2-Fluorobiphenyl (Surr)	75		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	83		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: 80711010.D

Analysis Method: 8270D | Date Collected: 07/02/2018 09:25

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 280(mL) | Date Analyzed: 07/11/2018 10:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	10		0.89	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		28-128
4165-62-2	Phenol-d5 (Surr)	66		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	66		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	78		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: 80711011.D

Analysis Method: 8270D | Date Collected: 07/02/2018 10:35

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 250(mL) | Date Analyzed: 07/11/2018 10:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.2		1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	60		17-120
321-60-8	2-Fluorobiphenyl (Surr)	57		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: 80711013.D

Analysis Method: 8270D | Date Collected: 07/05/2018 09:00

Extract. Method: 3510C | Date Extracted: 07/09/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 07/11/2018 11:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	72		28-128
4165-62-2	Phenol-d5 (Surr)	50		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-120
367-12-4	2-Fluorophenol (Surr)	46		17-120
321-60-8	2-Fluorobiphenyl (Surr)	57		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	73		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 | Lab Sample ID: 240-98135-3

Matrix: Water | Lab File ID: 80711014.D

Analysis Method: 8270D | Date Collected: 07/05/2018 10:14

Extract. Method: 3510C | Date Extracted: 07/09/2018 06:41

Sample wt/vol: 270(mL) | Date Analyzed: 07/11/2018 11:48

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335590 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-120
367-12-4	2-Fluorophenol (Surr)	49		17-120
321-60-8	2-Fluorobiphenyl (Surr)	53		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	67		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 | Lab Sample ID: 240-98264-2

Matrix: Water | Lab File ID: 80718017.D

Analysis Method: 8270D | Date Collected: 07/09/2018 09:36

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 270(mL) | Date Analyzed: 07/18/2018 15:45

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.0		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		28-128
4165-62-2	Phenol-d5 (Surr)	60		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	60		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	74		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 | Lab Sample ID: 240-98264-3

Matrix: Water | Lab File ID: 80718018.D

Analysis Method: 8270D | Date Collected: 07/09/2018 14:50

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 270(mL) | Date Analyzed: 07/18/2018 16:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	56		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	62		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	70		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: 80718014.D

Analysis Method: 8270D | Date Collected: 07/10/2018 12:00

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 260(mL) | Date Analyzed: 07/18/2018 14:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.2		0.96	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	73		28-128
4165-62-2	Phenol-d5 (Surr)	52		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	59		17-120
321-60-8	2-Fluorobiphenyl (Surr)	58		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	70		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: 80718019.D

Analysis Method: 8270D | Date Collected: 07/10/2018 09:20

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 270(mL) | Date Analyzed: 07/18/2018 16:35

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	26		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		28-128
4165-62-2	Phenol-d5 (Surr)	40		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	49		17-120
321-60-8	2-Fluorobiphenyl (Surr)	59		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	74		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 | Lab Sample ID: 240-98352-3

Matrix: Water | Lab File ID: 80718022.D

Analysis Method: 8270D | Date Collected: 07/10/2018 11:20

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 270(mL) | Date Analyzed: 07/18/2018 17:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.3		0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	55		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	71		33-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: 80718023.D

Analysis Method: 8270D | Date Collected: 07/10/2018 14:35

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 270(mL) | Date Analyzed: 07/18/2018 18:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.36	U	0.93	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		28-128
4165-62-2	Phenol-d5 (Surr)	61		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-120
367-12-4	2-Fluorophenol (Surr)	66		17-120
321-60-8	2-Fluorobiphenyl (Surr)	65		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	79		33-120

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 | Lab Sample ID: 240-98264-2

Matrix: Water | Lab File ID: Z0071708.D

Analysis Method: RSK-175 | Date Collected: 07/09/2018 09:36

Sample wt/vol: 23(mL) | Date Analyzed: 07/17/2018 16:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	370		1.0	0.17
74-84-0	Ethane	0.10	U	1.0	0.10
74-85-1	Ethylene	0.11	U	1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	117		60-140

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: Z0071712.D

Analysis Method: RSK-175 | Date Collected: 07/10/2018 12:00

Sample wt/vol: 23(mL) | Date Analyzed: 07/17/2018 17:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336664 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	170		1.0	0.17
74-84-0	Ethane	0.10	U	1.0	0.10
74-85-1	Ethylene	0.11	U	1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	123		60-140

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: A0070616.D

Analysis Method: 8015C | Date Collected: 07/02/2018 11:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/06/2018 21:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335002 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	85	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	80		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: A0070617.D

Analysis Method: 8015C | Date Collected: 07/02/2018 11:55

Sample wt/vol: 5(mL) | Date Analyzed: 07/06/2018 22:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335002 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	78	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: A0070618.D

Analysis Method: 8015C | Date Collected: 07/02/2018 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 07/06/2018 23:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335002 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	88	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	84		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: A0070619.D

Analysis Method: 8015C | Date Collected: 07/02/2018 10:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/06/2018 23:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335002 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	74	J	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: A0071011.D

Analysis Method: 8015C | Date Collected: 07/05/2018 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/10/2018 12:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335392 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: A0071633.D

Analysis Method: 8015C | Date Collected: 07/10/2018 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 07/17/2018 03:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336306 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	84		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: A0071811.D

Analysis Method: 8015C | Date Collected: 07/10/2018 09:20

Sample wt/vol: 5(mL) | Date Analyzed: 07/18/2018 13:20

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336750 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	15000		2000	980

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		56-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: A0071814.D

Analysis Method: 8015C | Date Collected: 07/10/2018 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 07/18/2018 15:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336750 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	79		56-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16S-070218 | Lab Sample ID: 240-98038-4

Matrix: Water | Lab File ID: R070923.D

Analysis Method: 8015C | Date Collected: 07/02/2018 11:40

Extraction Method: 3520C | Date Extracted: 07/05/2018 12:52

Sample wt/vol: 270(mL) | Date Analyzed: 07/10/2018 00:01

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1300		460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	91		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 | Lab Sample ID: 240-98038-5

Matrix: Water | Lab File ID: R070924.D

Analysis Method: 8015C | Date Collected: 07/02/2018 11:55

Extraction Method: 3520C | Date Extracted: 07/05/2018 12:52

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 00:28

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	520		500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-39S-070218 | Lab Sample ID: 240-98038-7

Matrix: Water | Lab File ID: R070925.D

Analysis Method: 8015C | Date Collected: 07/02/2018 09:25

Extraction Method: 3520C | Date Extracted: 07/05/2018 12:52

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 00:55

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	2100		500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	83		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-43S-070218 | Lab Sample ID: 240-98038-8

Matrix: Water | Lab File ID: R070926.D

Analysis Method: 8015C | Date Collected: 07/02/2018 10:35

Extraction Method: 3520C | Date Extracted: 07/05/2018 12:52

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 01:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1300		500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	80		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17S-070518 | Lab Sample ID: 240-98135-2

Matrix: Water | Lab File ID: R071009.D

Analysis Method: 8015C | Date Collected: 07/05/2018 09:00

Extraction Method: 3520C | Date Extracted: 07/09/2018 11:38

Sample wt/vol: 280(mL) | Date Analyzed: 07/10/2018 18:37

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335544 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	200	J	450	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	77		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18S-071018 | Lab Sample ID: 240-98320-1

Matrix: Water | Lab File ID: R071314.D

Analysis Method: 8015C | Date Collected: 07/10/2018 12:00

Extraction Method: 3520C | Date Extracted: 07/11/2018 13:21

Sample wt/vol: 260(mL) | Date Analyzed: 07/13/2018 21:49

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336175 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	690		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	90		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 | Lab Sample ID: 240-98352-2

Matrix: Water | Lab File ID: R071712.D

Analysis Method: 8015C | Date Collected: 07/10/2018 09:20

Extraction Method: 3520C | Date Extracted: 07/16/2018 12:17

Sample wt/vol: 260(mL) | Date Analyzed: 07/17/2018 20:41

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336687 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	630		480	220

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	86		37-130

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-38S-071018 | Lab Sample ID: 240-98352-4

Matrix: Water | Lab File ID: R071715.D

Analysis Method: 8015C | Date Collected: 07/10/2018 14:35

Extraction Method: 3520C | Date Extracted: 07/16/2018 12:17

Sample wt/vol: 270(mL) | Date Analyzed: 07/17/2018 22:03

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336687 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	210	U	460	210

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	89		37-130

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:00

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:00

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	5.7	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	8.2	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	5.8	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	150	100	47	ug/L			1	6020A
7439-96-5	Manganese	26	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:00

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	4.8	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	7.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	7.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	18	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	10	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-16I-070218 Lab Sample ID: 240-98038-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:26

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-16I-070218 Lab Sample ID: 240-98038-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:26

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	14	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	6.7	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.73	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Cadmium	0.32	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	43	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	3.0	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	3400	100	47	ug/L			1	6020A
7439-96-5	Manganese	59	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	56	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.57	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-16I-070218 Lab Sample ID: 240-98038-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:26

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	13	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	4.5	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Dissolved Beryllium	0.64	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Dissolved Cadmium	0.31	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	41	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	2.4	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	2800	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	54	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	52	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-16S-070218 Lab Sample ID: 240-98038-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:40

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-16S-070218 Lab Sample ID: 240-98038-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:40

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	18	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	24000	100	47	ug/L			1	6020A
7439-96-5	Manganese	3100	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	20	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-16S-070218 Lab Sample ID: 240-98038-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:40

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	17	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.9	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	3.9	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	25000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	3000	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	19	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.7	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-53S-070218 Lab Sample ID: 240-98038-5

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:55

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-53S-070218 Lab Sample ID: 240-98038-5

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:55

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	9.3	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	49	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	13	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	5.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	20000	100	47	ug/L			1	6020A
7439-96-5	Manganese	430	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	2.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-53S-070218 Lab Sample ID: 240-98038-5

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 11:55

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	44	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	12	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.7	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	2.6	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	9000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	380	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	11	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 13:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 13:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	6.8	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	18	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	130	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	200	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	29	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	260	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	17000	100	47	ug/L			1	6020A
7439-96-5	Manganese	4200	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	160	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.46	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	12	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	49	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-53I-070218 Lab Sample ID: 240-98038-6

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 13:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	6.6	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	26	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	3.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	120	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	220	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	29	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	100	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	21000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	4100	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	180	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.47	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	12	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	47	5.0	0.82	ug/L			1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-39S-070218 Lab Sample ID: 240-98038-7

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-39S-070218 Lab Sample ID: 240-98038-7

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	47	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	3.6	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.2	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	49000	100	47	ug/L			1	6020A
7439-96-5	Manganese	220	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	2.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	4.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-39S-070218 Lab Sample ID: 240-98038-7

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 09:25

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	37	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	27	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	3.7	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	45000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	230	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	2.0	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-43S-070218 Lab Sample ID: 240-98038-8

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:35

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-43S-070218 Lab Sample ID: 240-98038-8

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:35

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.1	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	74	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	0.20	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	3.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	650	100	47	ug/L			1	6020A
7439-96-5	Manganese	490	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-43S-070218 Lab Sample ID: 240-98038-8

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/02/2018 10:35

Reporting Basis: WET Date Received: 07/03/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	71	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	0.20	1.0	0.19	ug/L	J		1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	1100	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	510	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-17S-070518 Lab Sample ID: 240-98135-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 09:00

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-17S-070518 Lab Sample ID: 240-98135-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 09:00

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.59	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	6.5	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	68	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.67	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.30	1.0	0.21	ug/L	J	B	1	6020A
7440-48-4	Cobalt	7.6	1.0	0.19	ug/L		B	1	6020A
7440-47-3	Chromium	1.9	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	3.3	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	16000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.2	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	62	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	1.4	1.0	0.45	ug/L		B	1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	4.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-17S-070518 Lab Sample ID: 240-98135-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 09:00

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	6.1	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	64	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.43	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	6.3	1.0	0.19	ug/L		B	1	6020A
7440-47-3	Dissolved Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	15000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1200	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	55	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.50	1.0	0.45	ug/L	J	B	1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	3.0	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-17I-070518 Lab Sample ID: 240-98135-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 10:14

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-17I-070518 Lab Sample ID: 240-98135-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 10:14

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	51	2.0	0.57	ug/L		F1	1	6020A
7440-38-2	Arsenic	52	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	50	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	51	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	49	1.0	0.21	ug/L		B	1	6020A
7440-48-4	Cobalt	53	1.0	0.19	ug/L		B	1	6020A
7440-47-3	Chromium	51	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	2.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	13000	100	47	ug/L		F1	1	6020A
7439-96-5	Manganese	250	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	49	5.0	1.1	ug/L		F1	1	6020A
7440-02-0	Nickel	53	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	49	1.0	0.45	ug/L		B	1	6020A
7782-49-2	Selenium	50	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	49	1.0	0.20	ug/L			1	6020A
7440-62-2	Vanadium	50	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	49	1.0	0.053	ug/L		F1	1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-17I-070518 Lab Sample ID: 240-98135-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/05/2018 10:14

Reporting Basis: WET Date Received: 07/06/2018 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	19	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	15	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.73	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	28	1.0	0.19	ug/L		B	1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	6200	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	58	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	35	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.52	1.0	0.45	ug/L	J	B	1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.93	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 09:36

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U	F1	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 09:36

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	230000	5000	310	ug/L			1	6010C
7440-09-7	Potassium	42000	5000	560	ug/L			1	6010C
7439-95-4	Magnesium	210000	5000	780	ug/L			1	6010C
7440-23-5	Sodium	450000	5000	560	ug/L			1	6010C
14808-60-7	SiO2, Silica	29000	1100	180	ug/L			1	6010C
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	1.7	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	100	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.34	1.0	0.31	ug/L	J	^	1	6020A
7440-43-9	Cadmium	1.5	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	1.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.5	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	1.9	2.0	1.7	ug/L	J		1	6020A
7439-89-6	Iron	300000	500	240	ug/L			5	6020A
7439-96-5	Manganese	3900	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.8	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	3.2	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	1.4	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	2.7	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 09:36

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.3	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	110	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	1.3	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	2.9	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	290000	500	240	ug/L			5	6020A
7439-96-5	Dissolved Manganese	3600	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.6	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	3.5	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	1.1	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	1.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 14:50

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 14:50

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	4.3	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	1.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Manganese	4.1	5.0	2.1	ug/L	J		1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	1.5	2.0	1.5	ug/L	U		1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 14:50

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	4.3	5.0	2.2	ug/L	J		1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	1.4	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	47	100	47	ug/L	U		1	6020A
7439-96-5	Dissolved Manganese	4.2	5.0	2.1	ug/L	J		1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	1.5	2.0	1.5	ug/L	J		1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 12:00

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 12:00

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	170000	5000	310	ug/L			1	6010C
7440-09-7	Potassium	36000	5000	560	ug/L			1	6010C
7439-95-4	Magnesium	130000	5000	780	ug/L			1	6010C
7440-23-5	Sodium	380000	5000	560	ug/L			1	6010C
14808-60-7	SiO2, Silica	31000	1100	180	ug/L			1	6010C
7440-36-0	Antimony	0.86	2.0	0.57	ug/L	J		1	6020A
7440-38-2	Arsenic	2.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Barium	180	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.36	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.42	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Cobalt	2.8	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	6.6	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	5.5	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	110000	100	47	ug/L			1	6020A
7439-96-5	Manganese	1900	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.7	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Nickel	8.0	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	5.0	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	1.5	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	8.7	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.066	1.0	0.053	ug/L	J		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 12:00

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	1.5	5.0	0.75	ug/L	J		1	6020A
7440-39-3	Dissolved Barium	160	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.48	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Dissolved Cadmium	0.51	1.0	0.21	ug/L	J		1	6020A
7440-48-4	Dissolved Cobalt	2.3	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	1.6	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	99000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1800	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.4	5.0	1.1	ug/L	J		1	6020A
7440-02-0	Dissolved Nickel	6.1	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.56	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	1.3	5.0	0.89	ug/L	J		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	2.2	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-5S-071018 Lab Sample ID: 240-98352-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 09:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-5S-071018 Lab Sample ID: 240-98352-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 09:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	14	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	1.2	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	1.6	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	82	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	2.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	20	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	63000	100	47	ug/L			1	6020A
7439-96-5	Manganese	7000	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	53	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.72	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Selenium	9.2	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	4.3	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-5S-071018 Lab Sample ID: 240-98352-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 09:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	13	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	1.3	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	1.5	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	80	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	2.0	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	24	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	63000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	6900	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	52	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.82	1.0	0.45	ug/L	J		1	6020A
7782-49-2	Dissolved Selenium	8.6	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	4.8	5.0	0.82	ug/L	J		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DMW-5I-071018 Lab Sample ID: 240-98352-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 11:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: DMW-5I-071018 Lab Sample ID: 240-98352-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 11:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	3.0	1.0	0.31	ug/L			1	6020A
7440-43-9	Cadmium	4.5	1.0	0.21	ug/L			1	6020A
7440-48-4	Cobalt	96	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	4.7	2.0	0.98	ug/L			1	6020A
7440-50-8	Copper	150	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	660	100	47	ug/L			1	6020A
7439-96-5	Manganese	1500	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	88	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	3.6	1.0	0.45	ug/L			1	6020A
7782-49-2	Selenium	6.7	5.0	0.89	ug/L			1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: DMW-5I-071018 Lab Sample ID: 240-98352-3

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 11:20

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	0.75	5.0	0.75	ug/L	U		1	6020A
7440-39-3	Dissolved Barium	16	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	2.9	1.0	0.31	ug/L			1	6020A
7440-43-9	Dissolved Cadmium	4.7	1.0	0.21	ug/L			1	6020A
7440-48-4	Dissolved Cobalt	100	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	4.8	2.0	0.98	ug/L			1	6020A
7440-50-8	Dissolved Copper	160	2.0	1.7	ug/L			1	6020A
7439-89-6	Dissolved Iron	670	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	1600	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	93	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	3.6	1.0	0.45	ug/L			1	6020A
7782-49-2	Dissolved Selenium	6.8	5.0	0.89	ug/L			1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MSA-MW-38S-071018 Lab Sample ID: 240-98352-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 14:35

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-97-6	Mercury	0.13	0.20	0.13	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: MSA-MW-38S-071018 Lab Sample ID: 240-98352-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 14:35

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Arsenic	11	5.0	0.75	ug/L			1	6020A
7440-39-3	Barium	38	5.0	2.2	ug/L			1	6020A
7440-41-7	Beryllium	0.68	1.0	0.31	ug/L	J		1	6020A
7440-43-9	Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Cobalt	26	1.0	0.19	ug/L			1	6020A
7440-47-3	Chromium	1.1	2.0	0.98	ug/L	J		1	6020A
7440-50-8	Copper	5.7	2.0	1.7	ug/L			1	6020A
7439-89-6	Iron	23000	100	47	ug/L			1	6020A
7439-96-5	Manganese	400	5.0	2.1	ug/L			1	6020A
7439-98-7	Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Nickel	16	2.0	1.5	ug/L			1	6020A
7439-92-1	Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Vanadium	9.1	5.0	0.82	ug/L			1	6020A
7440-22-4	Silver	0.053	1.0	0.053	ug/L	U		1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: MSA-MW-38S-071018 Lab Sample ID: 240-98352-4

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 14:35

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Dissolved Antimony	0.57	2.0	0.57	ug/L	U		1	6020A
7440-38-2	Dissolved Arsenic	8.3	5.0	0.75	ug/L			1	6020A
7440-39-3	Dissolved Barium	38	5.0	2.2	ug/L			1	6020A
7440-41-7	Dissolved Beryllium	0.31	1.0	0.31	ug/L	U	^	1	6020A
7440-43-9	Dissolved Cadmium	0.21	1.0	0.21	ug/L	U		1	6020A
7440-48-4	Dissolved Cobalt	20	1.0	0.19	ug/L			1	6020A
7440-47-3	Dissolved Chromium	0.98	2.0	0.98	ug/L	U		1	6020A
7440-50-8	Dissolved Copper	1.7	2.0	1.7	ug/L	U		1	6020A
7439-89-6	Dissolved Iron	22000	100	47	ug/L			1	6020A
7439-96-5	Dissolved Manganese	390	5.0	2.1	ug/L			1	6020A
7439-98-7	Dissolved Molybdenum	1.1	5.0	1.1	ug/L	U		1	6020A
7440-02-0	Dissolved Nickel	12	2.0	1.5	ug/L			1	6020A
7439-92-1	Dissolved Lead	0.45	1.0	0.45	ug/L	U		1	6020A
7782-49-2	Dissolved Selenium	0.89	5.0	0.89	ug/L	U		1	6020A
7440-28-0	Dissolved Thallium	0.20	1.0	0.20	ug/L	U		1	6020A
7440-62-2	Dissolved Vanadium	0.82	5.0	0.82	ug/L	U		1	6020A
7440-22-4	Dissolved Silver	0.053	1.0	0.053	ug/L	U		1	6020A
7439-97-6	Mercury, Dissolved	0.13	0.20	0.13	ug/L	U		1	7470A

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-16D-070218 Lab Sample ID: 240-98038-2

Matrix: Water Lab File ID: Perc_07062018A_036.d

Analysis Method: 6850 Date Collected: 07/02/2018 09:00

Extraction Method: Filtration Date Extracted: 07/06/2018 17:10

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 03:12

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.60		0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53S-070218 Lab Sample ID: 240-98038-5

Matrix: Water Lab File ID: Perc_07062018A_037.d

Analysis Method: 6850 Date Collected: 07/02/2018 11:55

Extraction Method: Filtration Date Extracted: 07/06/2018 17:10

Sample wt/vol: 4.00(mL) Date Analyzed: 07/11/2018 03:25

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-53I-070218 | Lab Sample ID: 240-98038-6

Matrix: Water | Lab File ID: Perc_07062018A_038.d

Analysis Method: 6850 | Date Collected: 07/02/2018 13:25

Extraction Method: Filtration | Date Extracted: 07/06/2018 17:12

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 03:39

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.34	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-17I-070518 Lab Sample ID: 240-98135-3

Matrix: Water Lab File ID: Perc_07252018A_016.d

Analysis Method: 6850 Date Collected: 07/05/2018 10:14

Extraction Method: Filtration Date Extracted: 07/13/2018 10:25

Sample wt/vol: 4.00(mL) Date Analyzed: 07/25/2018 17:36

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.11	J I	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Matrix: Water Lab File ID: Perc_07252018A_019.d

Analysis Method: 6850 Date Collected: 07/09/2018 09:36

Extraction Method: Filtration Date Extracted: 07/13/2018 10:25

Sample wt/vol: 4.00(mL) Date Analyzed: 07/25/2018 18:16

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: MSA-MW-29D-070918 Lab Sample ID: 240-98264-3

Matrix: Water Lab File ID: Perc_07252018A_020.d

Analysis Method: 6850 Date Collected: 07/09/2018 14:50

Extraction Method: Filtration Date Extracted: 07/13/2018 10:25

Sample wt/vol: 4.00(mL) Date Analyzed: 07/25/2018 18:29

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.12	J	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5I-071018 | Lab Sample ID: 240-98352-3

Matrix: Water | Lab File ID: Perc_07252018A_021.d

Analysis Method: 6850 | Date Collected: 07/10/2018 11:20

Extraction Method: Filtration | Date Extracted: 07/13/2018 10:25

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/25/2018 18:43

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 09:36

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Phosphate as PO4	0.44	0.31	0.11	mg/L			1	SM4500 P E-1999
7664-41-7	Ammonia	13	2.0	0.46	mg/L			1	4500 NH3 C-1997
	Alkalinity	200	5.0	2.6	mg/L			1	2320B-1997
16887-00-6	Chloride	440	20	5.7	mg/L			20	9056A
14797-65-0	Nitrite as N	0.028	0.20	0.028	mg/L	U		2	9056A
14797-55-8	Nitrate as N	0.028	0.20	0.028	mg/L	U		2	9056A
14808-79-8	Sulfate	1900	20	7.0	mg/L			20	9056A
	Total Dissolved Solids	3700	50	39	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 12:00

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Phosphate as PO4	0.68	0.31	0.11	mg/L			1	SM4500 P E-1999
7664-41-7	Ammonia	11	2.0	0.46	mg/L			1	4500 NH3 C-1997
	Alkalinity	180	5.0	2.6	mg/L		B	1	2320B-1997
16887-00-6	Chloride	480	10	2.8	mg/L			10	9056A
14797-65-0	Nitrite as N	0.014	0.10	0.014	mg/L	U		1	9056A
14797-55-8	Nitrate as N	0.014	0.10	0.014	mg/L	U		1	9056A
14808-79-8	Sulfate	1100	10	3.5	mg/L			10	9056A
	Total Dissolved Solids	2500	40	31	mg/L			1	SM 2540C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-18I-070918 Lab Sample ID: 240-98264-2

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/09/2018 09:36

Reporting Basis: WET Date Received: 07/10/2018 09:25

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	27	1.0	0.50	mg/L		B	1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: MSA-MW-18S-071018 Lab Sample ID: 240-98320-1

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG ID.:

Matrix: Water Date Sampled: 07/10/2018 12:00

Reporting Basis: WET Date Received: 07/11/2018 09:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-44-0	Dissolved Organic Carbon	40	1.0	0.50	mg/L		B	1	9060A

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374499

Lab ID: LCS 160-374499/1-A | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	11.00	0.959	1.38		pCi/L	1.00	0.305	551	120	5.510	0.120	0.20848	375103

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03120				g		0.0339	92.0	40 - 110

Lab ID: LCSD 160-374499/2-A | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple1 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	10.54	0.936	1.33		pCi/L	1.00	0.250	522	71	5.220	0.071	0.21110	375103

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03070				g		0.0339	90.6	40 - 110

Lab ID: 240-98038-2 | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: DMW-16D-070218 | Detector: Purple2 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.506	0.234	0.239		pCi/L	1.00	0.248	31	67	0.310	0.067	0.20761	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0307				g		0.0339	90.6	40 - 110

Lab ID: 240-98038-3 | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: DMW-16I-070218 | Detector: Purple3 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.322	0.196	0.198		pCi/L	1.00	0.233	20	51	0.200	0.051	0.20450	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0300				g		0.0339	88.5	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374499

Lab ID: 240-98038-4 | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: DMW-16S-070218 | Detector: Purple4 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	1.08	0.329	0.344		pCi/L	1.00	0.246	54	54	0.540	0.054	0.20298	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0293				g		0.0339	86.4	40 - 110

Lab ID: MB 160-374499/6-A | Analyzed: 07/12/18 19:14 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple5 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.2493	0.176	0.178		pCi/L	1.00	0.216	14	33	0.140	0.033	0.20053	375103

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02840				g		0.0339	83.8	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-374499/6-A	Total Alpha Radium			0.2493		pCi/L							2.803984 55

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-374499/1-A	Total Alpha Radium		11.4	11.00		pCi/L	97	67 - 133	4				-.3638862 623

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-374499/2-A	Total Alpha Radium		11.4	10.54		pCi/L	93	67 - 133	4	0.17	0.47	1	-.8306782 235

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 375078

Lab ID: LCS 160-375078/1-A | Analyzed: 07/17/18 21:22 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Protean10 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	10.92	0.998	1.40		pCi/L	1.00	0.265	492	65	4.920	0.065	0.18328	376323

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03080				g		0.0339	90.9	40 - 110

Lab ID: LCSD 160-375078/2-A | Analyzed: 07/17/18 21:22 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Protean11 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	10.56	0.992	1.37		pCi/L	1.00	0.287	470	77	4.700	0.077	0.18638	376323

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.02980				g		0.0339	87.9	40 - 110

Lab ID: 240-98264-3 | Analyzed: 07/17/18 21:22 | Decay Corrected: No | Ts: 100
Client ID: MSA-MW-29D-070918 | Detector: Protean13 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.361	0.248	0.250		pCi/L	1.00	0.349	30	137	0.300	0.137	0.18604	376323

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0308				g		0.0339	90.9	40 - 110

Lab ID: MB 160-375078/4-A | Analyzed: 07/17/18 21:23 | Decay Corrected: No | Ts: 100
Client ID: | Detector: Purple23 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 2

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Total Alpha Radium	0.3081	0.187	0.189		pCi/L	1.00	0.219	19	45	0.190	0.045	0.19901	376328

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03000				g		0.0339	88.5	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 375078

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-375078/4-A	Total Alpha Radium			0.3081		pCi/L							3.252416 62

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-375078/1-A	Total Alpha Radium		11.4	10.92		pCi/L	96	67 - 133	3				-.4369015 027

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-375078/2-A	Total Alpha Radium		11.4	10.56		pCi/L	93	67 - 133	3	0.13	0.36	1	-.7866829 287

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374496

Lab ID: LCS 160-374496/1-A | Analyzed: 07/12/18 14:29 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Purple12 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	8.512	0.627	1.00		pCi/L	1.00	0.356	892	374	4.460	0.374	0.44551	375103

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03300				g		0.0339	97.3	40 - 110
Y Carrier	0.02410				g		0.0268	90.1	40 - 110

Lab ID: LCSD 160-374496/2-A | Analyzed: 07/12/18 14:29 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Purple13 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	8.056	0.584	0.943		pCi/L	1.00	0.314	903	337	4.515	0.337	0.44453	375103

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03530				g		0.0339	104	40 - 110
Y Carrier	0.02440				g		0.0268	91.2	40 - 110

Lab ID: 240-98038-2 | Analyzed: 07/12/18 14:29 | Decay Corrected: No | Ts: 200
Client ID: DMW-16D-070218 | Detector: Purple14 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.330	0.205	0.207		pCi/L	1.00	0.309	90	288	0.450	0.288	0.44395	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0349				g		0.0339	103	40 - 110
Y Carrier	0.0234				g		0.0268	87.5	40 - 110

Lab ID: 240-98038-3 | Analyzed: 07/12/18 14:30 | Decay Corrected: No | Ts: 200
Client ID: DMW-16I-070218 | Detector: Purple15 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.103	0.248	0.248	U	pCi/L	1.00	0.426	91	412	0.455	0.412	0.43957	375103

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0310				g		0.0339	91.4	40 - 110
Y Carrier	0.0227				g		0.0268	84.9	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 374496

Lab ID: 240-98038-4 | Analyzed: 07/12/18 14:30 | Decay Corrected: No | Ts: 200
Client ID: DMW-16S-070218 | Detector: Blue0 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.617	0.246	0.253		pCi/L	1.00	0.339	127	338	0.635	0.338	0.44450	375138

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0335				g		0.0339	98.8	40 - 110
Y Carrier	0.0239				g		0.0268	89.3	40 - 110

Lab ID: MB 160-374496/6-A | Analyzed: 07/12/18 14:30 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Blue1 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	-0.2840	0.169	0.171	U	pCi/L	1.00	0.362	49	380	0.245	0.380	0.43565	375138

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03350				g		0.0339	98.8	40 - 110
Y Carrier	0.02410				g		0.0268	90.1	40 - 110

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-374496/6-A	Radium-228			-0.2840	U	pCi/L							-3.32997095

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-374496/1-A	Radium-228		8.15	8.512		pCi/L	104	56 - 140	6				.5192231689

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-374496/2-A	Radium-228		8.15	8.056		pCi/L	99	56 - 140	6	0.23	0.66	1	-.1420370119

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 375081

Lab ID: LCS 160-375081/1-A | Analyzed: 07/17/18 11:53 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Protean1 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCS Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	12.79	0.830	1.44		pCi/L	1.00	0.447	1130	432	5.650	0.432	0.43659	376323

Carrier	LCS Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03230				g		0.0339	95.3	40 - 110
Y Carrier	0.02430				g		0.0268	90.8	40 - 110

Lab ID: LCSD 160-375081/2-A | Analyzed: 07/17/18 11:53 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Protean2 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	12.79	0.852	1.45		pCi/L	1.00	0.503	1119	524	5.595	0.524	0.43831	376323

Carrier	LCSD Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03220				g		0.0339	95.0	40 - 110
Y Carrier	0.02360				g		0.0268	88.2	40 - 110

Lab ID: 240-98264-3 | Analyzed: 07/17/18 11:54 | Decay Corrected: No | Ts: 200
Client ID: MSA-MW-29D-070918 | Detector: Protean3 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.308	0.232	0.234	U	pCi/L	1.00	0.368	166	646	0.830	0.646	0.43990	376323

Carrier	Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.0342				g		0.0339	101	40 - 110
Y Carrier	0.0250				g		0.0268	93.5	40 - 110

Lab ID: MB 160-375081/6-A | Analyzed: 07/17/18 11:54 | Decay Corrected: No | Ts: 200
Client ID: | Detector: Protean6 | Yield Truncated: No | Tb: 1000
Sigma: 2 | Dil Fac: 1 | Calibration Type: 1

Analyte	MB Result	Count Unc	Total Unc	Qualifier	Unit	RL	MDC	Cs	Cb	CPMs	CPMb	Eff	Anly Batch
Radium-228	0.1744	0.289	0.290	U	pCi/L	1.00	0.488	102	444	0.510	0.444	0.43361	376323

Carrier	MB Result	Count Unc	Total Unc	Qualifier	Unit	MDC	Spike Added	% Rec	% Rec Limits
Ba Carrier	0.03110				g		0.0339	91.7	40 - 110
Y Carrier	0.02360				g		0.0268	88.2	40 - 110

Gas Flow Proportional Counter Analysis Detail Report
Prep Batch: 375081

Quality Control Summary

Method Blank ID:	Analyte	Parent Result	Spike Added	MB Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
MB 160-375081/6-A	Radium-228			0.1744	U	pCi/L							1.204344 01

Lab Control Sample ID:	Analyte	Parent Result	Spike Added	LCS Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCS 160-375081/1-A	Radium-228		10.9	12.79		pCi/L	118	56 - 140	0				2.054218 511

Lab Control Sample Duplicate	Analyte	Parent Result	Spike Added	LCSD Result	Qualifier	Unit	% Rec	% Rec Limits	RPD	RER	DER	RER Limit	Z Factor
LCSD 160-375081/2-A	Radium-228		10.9	12.79		pCi/L	118	56 - 140	0	0	0	1	2.037411 3459

Glossary:

Ts = Count Duration, Sample
Tb = Count Duration, Background
Cs = Total Counts, Sample
Cb = Total Counts, Background
CPMs = Counts Per Minute, Sample
CPMb = Counts Per Minute, Background
Eff = Efficiency

Appendix C

Support Documentation

5.2/5.2 3.4/3.4
2-6/2-6

Chain of Custody Record

TestAmerica

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

180325
BALTIMORE

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~21015639~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Geo	Dso	1,4 Dioxane	Total metals	Diss metals	Rechlorate	Radium 224, 226, 228	# of containers	Special Instructions/Note:
			Preservation Code:				A									
TB-070218	7/2/18	—	G	Water			2	-	-	-	-	-	-	-		
DMW-16D-070218		0900					3	-	-	2	1	1	1	3		
DMW-16I-070218		1026					3	-	-	2	1	1	-	3		
DMW-16S-070218		1140					3	2	2	2	1	1	-	3		
MSA-MW-53S-070218		1155					3	2	2	2	1	1	1	-		
MSA-MW-53I-070218		1325					3	-	-	2	1	1	1	-		
MSA-MW-39S-070218		0925					3	2	2	2	1	1	-	-		
MSA-MW-43S-070218		1035					3	2	2	2	1	1	-	-		

240-98038 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Walt Payon	7/2/18 1440	TT INC		7/2/18 1440	
	7/2/18			7/3/18 930	TTC

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

1.2/C1.2

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Pryor	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.				Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			
City: Germantown	TAT Requested (days): ~~Stat~~ standard			
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA-GW 2018	Project #: ~~24015039~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	Geo	Dro	1,4 Dioxane	Total metals	Diss metals	Perchlorate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A								
TB-070518	7/5/18	—	G	Water			2	-	-	-	-	-	-		
DMW-17S-070518	↓	0900	↓	↓			3	2	2	2	1	1	-		
DMW-17I-070518	↓	1014	↓	↓			9	-	-	6	3	3	1		MS/MSD

240-98135 Chain of Custody

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Walt Pryor	7/5/18	TA Inc	POP	7-6-18 930	TAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

2.6/2.6

60

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payson	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.		Analysis Requested	180325	Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
City: Germantown	TAT Requested (days): Standard			
State, Zip: MD, 20874				Other:
Phone: 301 528-3021	PO #: 1119970			
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA. ~~[redacted]~~ GW 2018	Project #: ~~24015630~~ 112IC08424			
Site: Dump Rd	SSOW#:			

BALTIMORE

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	GRO	DRO	1,4 Dioxane	Total metals	Diss metals	Perchlorate	MEE	Diss DOC	Total select metals	Alkalinity	Nitrate, nitrite, sulfate, TDS	Ammonia + phosphate	Radium 224,226	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A															
TB-070918	7/9/18	—	G	Water			2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
MSA-MW-18I-070918		0936					3	-	-	2	1	1	1	3	2	1	1	1	1	-		
~~MSA-MW-18S-070918~~	MP						3	2	2	2	1	1	-	3	2	1	1	1	1	-		MP
MSA-MW-29D-070918		1450					3	-	-	2	1	1	1	-	-	-	-	-	-	3		

Ref: BACKUP LABELS
Dep:
Date: 22Feb18
Wgt: 10.00 LBS
DV:
Svcs: PRIORITY OVERNIGHT Master 4241 3164 1279
TRCK: 4241 3164 1305

SHIPPING:	0.00
SPECIAL:	0.00
HANDLING:	0.00
0.00 TOTAL:	0.00

240-98264 Chain of Custody

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Walt Pay	Date/Time: 7/9/18 1500	Company: T-INC	Received by:	Date/Time: 7/9/18 1500	Company: TA
Relinquished by:	Date/Time: 7/9/18 1640	Company: TA	Received by: POP	Date/Time: 7/10 925	Company: TAC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

3.2/3.2 4.0/4.0

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 991-3914	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 1
Company: Tetra Tech, Inc.		Analysis Requested		Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Germantown	TAT Requested (days): standard			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			Other:
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015839~~ 112ICO7424			
Site: Dump Rd	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	BCO	DRO	1,4 Dioxane	Total metals	Diss metals	MEE	Alkalinity	Diss DOC	Nitrate, nitrite, sulfate, TDS	Total Select Metals	Ammonia	Total Number of containers	Special Instructions/Note:
Preservation Code:							A													
MSA-MW-18s-071018	7/10/18	1200	G	Water	N	N	3	2	2	2	1	1	3	1	2	1	1	1		

240-98320 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	7/10/18 1612	TT	[signature]	7/10/18 1612	TA
2	[signature]	7/10/18		[signature]	7-11-18 935	TAC
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Trip Blanks Needed

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica

Client Information	Sampler: Walt Payon	Lab PM: McFadden, John	Carrier Tracking No(s):	COC No: 240-50815-21891.1
Client Contact: Tony Apanavage	Phone: 301 528-3075	E-Mail: john.mcfadden@testamericainc.com		Page: Page 1 of 2
Company: Tetra Tech, Inc.		Analysis Requested		Job #:
Address: 20251 Century Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Germantown	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: MD, 20874				
Phone: 301 528-3021	PO #: 1119970			Other:
Email: Tony.Apanavage@tetratech.com	WO #: 112IC07776			
Project Name: ~~New Wells~~ MSA GW 2018	Project #: ~~24015639~~ 112IC08424			
Site: Dump Rd	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - TCL OLM03.1/4.2 Volatile Analyte List	GRO	DRO	1,4 Dioxane	Total metals	Diss metals	Perchlorate	Haloacetic Acid	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A									
TB-071018	7/10/18	—	G	Water			2	-	-	-	-	-	-	-		
DMW-5S-071018		0920					9	6	6	6	3	3	-	6		MS/MSD
DMW-5I-071018		1120					3	-	-	2	1	1	1	-		
MSA-MW-38S-071018		1435					3	2	2	2	1	1	-	-		

240-98352 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Walt Pa	Date/Time: 7/10/18	Company: TT	Received by:	Date/Time: 7/10/18 16:12	Company: TA
Relinquished by:	Date/Time: 7/10/18	Company:	Received by: DOT	Date/Time: 7-11-18 915	Company: TAL
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

CASE NARRATIVE

Client: Tetra Tech, Inc.

Project: MSA GW 2018

Report Number: 240-98038-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The 552.2 Haloacetic Acids (HAAS) analysis was performed at the TestAmerica Savannah laboratory. The 6850 Perchlorate analysis was performed at the TestAmerica Sacramento laboratory. The 903.0 Total Alpha Radium and the 904.0 Radium-228 analyses were performed at the TestAmerica St. Louis laboratory. The 9060A Dissolved Organic Carbon analysis was performed at the TestAmerica Nashville laboratory.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 7/3/2018 9:30 AM, 7/6/2018 9:30 AM, 7/10/2018 9:25 AM and 7/11/2018 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 1.2º C, 2.6º C, 2.6º C, 3.2º C, 3.2º C, 3.4º C, 4.0º C, 4.0º C and 5.2º C.

Receipt Exceptions

The following sample was received at the laboratory outside the required temperature criteria: DMW-5I-071018 (240-98352-3). The temp was recorded at 6.9c . Ice seemed to have melted.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TB-070218 (240-98038-1), TB-070518 (240-98135-1), TB-070918 (240-98264-1), MSA-MW-18S-071018 (240-98320-1), TB-071018 (240-98352-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260C. The samples were analyzed on 07/12/2018, 07/13/2018, 07/15/2018 and 07/19/2018.

1,2-Dibromo-3-Chloropropane, 1,2-Dibromoethane and Dibromomethane failed the recovery criteria low for the MSD of sample 240-98334-5 in batch 240-336272. Several analytes exceeded the RPD limit.

tert-Butyl alcohol failed the recovery criteria low for the MS of sample DMW-5S-071018MS (240-98352-2) in batch 240-337077.

Several analytes exceeded the RPD limit for the MSD of sample DMW-5S-071018MSD (240-98352-2) in batch 240-337077.

Refer to the QC report for details.

Samples DMW-5S-071018 (240-98264-2)[1000X], DMW-5I-071018 (240-98264-3)[2X], DMW-17I-070518 (240-98264-3)[25X], DMW-16I-070218 (240-98264-3)[40X] and MSA-MW-53I-070218 (240-98264-6)[625X] required dilution prior to analysis. The reporting

limits have been adjusted accordingly.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 240-335864 was outside the method criteria for the following analyte(s): n-Butylbenzene, Dichlorodi fluoromethane and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. TB-070218 (240-98038-1), DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), DMW-16S-070218 (240-98038-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6) and (CCVIS 240-335864/4)

Method(s) 8260C: The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Hexachlorobutadiene. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following samples are impacted: TB-070218 (240-98038-1), DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), DMW-16S-070218 (240-98038-4), MSA-MW-53S-070218 (240-98038-5) and MSA-MW-53I-070218 (240-98038-6).

Method(s) 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-070218 (240-98038-1), DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), DMW-16S-070218 (240-98038-4), MSA-MW-53S-070218 (240-98038-5) and MSA-MW-53I-070218 (240-98038-6). The requested target analyte list includes 2-Chloroethyl vinyl ether that degrades in an acidic medium.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 240-336057 was outside the method criteria for the following analyte(s): n-Butylbenzene and Hexachlorobutadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. MSA-MW-39S-070218 (240-98038-7), MSA-MW-43S-070218 (240-98038-8), TB-070518 (240-98135-1), DMW-17S-070518 (240-98135-2), DMW-17I-070518 (240-98135-3) and (CCVIS 240-336057/4)

Method(s) 8260C: The initial calibration (ICAL) did not pass the method calibration acceptance criteria for Hexachlorobutadiene. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the samples and found to be acceptable. This demonstrates the reporting limit is valid for the affected analytes. The samples associated with the ICAL were non-detects for the affected analytes; therefore, the results have been reported. The following samples are impacted: MSA-MW-39S-070218 (240-98038-7), MSA-MW-43S-070218 (240-98038-8), TB-070518 (240-98135-1), DMW-17S-070518 (240-98135-2) and DMW-17I-070518 (240-98135-3).

Method(s) 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MSA-MW-39S-070218 (240-98038-7), MSA-MW-43S-070218 (240-98038-8), TB-070518 (240-98135-1), DMW-17S-070518 (240-98135-2) and DMW-17I-070518 (240-98135-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method(s) 8260C: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-070918 (240-98264-1), MSA-MW-18I-070918 (240-98264-2) and MSA-MW-29D-070918 (240-98264-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method(s) 8260C: The preservative used in the sample containers received is not compatible with the analytes requested. 2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

MSA-MW-18S-071018 (240-98320-1), TB-071018 (240-98352-1), DMW-5S-071018 (240-98352-2), DMW-5I-071018 (240-98352-3) and MSA-MW-38S-071018 (240-98352-4)

Method(s) 8260C: The continuing calibration verification (CCV) for analytical batch 337077 exceeded control criteria for multiple compounds. The samples associated with this CCV were non-detects for the affected analytes. In accordance with the laboratory SOP, a low level CCV at the reporting limit (labeled as an MRL) was analyzed and the affected compounds were detected; therefore the data has been reported. No further corrective action was required.

MSA-MW-18S-071018 (240-98320-1), TB-071018 (240-98352-1), DMW-5S-071018 (240-98352-2), DMW-5I-071018 (240-98352-3) and MSA-MW-38S-071018 (240-98352-4)

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

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for semivolatile organic compounds

(GCMS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 07/06/2018, 07/09/2018 and 07/12/2018 and analyzed on 07/11/2018 and 07/18/2018.

2-Fluorophenol (Surr) failed the surrogate recovery criteria high for DMW-5S-071018MS (240-98352-2MS). 2-Fluorophenol (Surr) failed the surrogate recovery criteria high for DMW-5S-071018MSD (240-98352-2MSD). Refer to the QC report for details.

Samples DMW-16S-070218 (240-98264-4)[10X], MSA-MW-53S-070218 (240-98264-5)[4X] and MSA-MW-53I-070218 (240-98264-6) [10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-335033.

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

GASOLINE RANGE ORGANICS (GRO)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-17S-070518 (240-98135-2), DMW-5S-071018 (240-98352-2), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015C - GRO. The samples were analyzed on 07/06/2018, 07/10/2018, 07/17/2018 and 07/18/2018.

Gasoline Range Organics [C6 - C10] failed the recovery criteria high for the MSD of sample 240-98151-1 in batch 240-335392.

Refer to the QC report for details.

Sample DMW-5S-071018 (240-98264-2)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISSOLVED GASES

Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for dissolved gases in accordance with RSK_175. The samples were analyzed on 07/17/2018.

Method(s) RSK-175: MS/MSD run but not reported due to the incorrect vials spiked. Also, the parent/MS/MSD was over calibration range for Methane, therefore, the parent/MS/MSD will be re-analyzed.

MSA-MW-18I-070918 (240-98264-2) and MSA-MW-18S-071018 (240-98320-1)

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

HALOACETIC ACIDS (HAAS)

Sample DMW-5S-071018 (240-98352-2) was analyzed for Haloacetic Acids (HAAs) in accordance with EPA Method 552.2. The samples were prepared and analyzed on 07/17/2018.

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

DIESEL RANGE ORGANICS (DRO)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-17S-070518 (240-98135-2), DMW-5S-071018 (240-98352-2), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for diesel range organics (DRO) in accordance with EPA-SW-846 Method 8015C - DRO. The samples were prepared on 07/05/2018, 07/09/2018, 07/11/2018 and 07/16/2018 and analyzed on 07/10/2018, 07/13/2018 and 07/17/2018.

Method(s) 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-334809.

Method(s) 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-335270.

Method(s) 3520C: LCS was spilled prior to concentration, batch had to be re-prepped and another bottle was consumed for each sample.

DMW-5S-071018 (240-98352-2), DMW-5S-071018 (240-98352-2[MS]), DMW-5S-071018 (240-98352-2[MSD]) and MSA-MW-38S-071018 (240-98352-4)

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

PERCHLORATE

Samples DMW-16D-070218 (240-98038-2), MSA-MW-18I-070918 (240-98264-2), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), MSA-MW-53S-070218 (240-98038-5) and MSA-MW-53I-070218 (240-98038-6) were analyzed for Perchlorate in accordance with EPA SW-846 Method 6850. The samples were prepared on 07/06/2018

and 07/13/2018 and analyzed on 07/11/2018 and 07/25/2018.

Method(s) 6850: The ion ratio is outside of control limits in the following sample: DMW-17I-070518 (240-98135-3). Reanalysis confirms the result. The sample detection is below the limit of detection (LOD) and has no adverse impact on data quality; therefore, the data is reported.

Method(s) Filtration: The sample was observed to have orange sediment on the bottom of the container MSA-MW-18I-070918 (240-98264-2).

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

TOTAL RECOVERABLE METALS (ICP)

Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/11/2018 and 07/12/2018 and analyzed on 07/12/2018 and 07/13/2018.

SiO2, Silica and Sodium failed the recovery criteria low for the MSD of sample MSA-MW-18I-070918MSD (240-98264-2) in batch 240-335908.

SiO2, Silica failed the recovery criteria high for the MS of sample MSA-MW-18S-071018MS (240-98320-1) in batch 240-336143.

SiO2, Silica failed the recovery criteria high for the MSD of sample MSA-MW-18S-071018MSD (240-98320-1) in batch 240-336143.

Refer to the QC report for details.

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

DISSOLVED METALS (ICPMS)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 07/05/2018, 07/09/2018, 07/11/2018 and 07/12/2018 and analyzed on 07/09/2018, 07/10/2018, 07/14/2018, 07/16/2018, 07/17/2018, 07/18/2018, 07/19/2018, 07/20/2018 and 07/21/2018.

Dissolved Iron and Dissolved Manganese failed the recovery criteria high for the MS of sample DMW-5S-071018MS (240-98352-2) in batch 240-336877.

Dissolved Iron and Dissolved Manganese failed the recovery criteria high for the MSD of sample DMW-5S-071018MSD (240-98352-2) in batch 240-336877.

Refer to the QC report for details.

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

TOTAL RECOVERABLE METALS (ICPMS)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 07/05/2018, 07/09/2018, 07/11/2018 and 07/12/2018 and analyzed on 07/09/2018, 07/10/2018, 07/14/2018, 07/16/2018, 07/17/2018, 07/18/2018, 07/19/2018 and 07/21/2018.

Several analytes were detected in method blank MB 240-335239/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Antimony, Iron, Molybdenum and Silver failed the recovery criteria low for the MS of sample DMW-17I-070518MS (240-98135-3) in batch 240-336575.

Antimony, Iron, Molybdenum and Silver failed the recovery criteria low for the MSD of sample DMW-17I-070518MSD (240-98135-3) in batch 240-336575.

Dissolved Iron and Iron failed the recovery criteria low for the MS of sample MSA-MW-18I-070918MS (240-98264-2) in batch 240-337207.

Dissolved Iron and Iron failed the recovery criteria low for the MSD of sample MSA-MW-18I-070918MSD (240-98264-2) in batch

240-337207.

Dissolved Iron and Iron failed the recovery criteria low for the MS of sample MSA-MW-18S-071018MS (240-98320-1) in batch 240-337442.

Refer to the QC report for details.

Sample MSA-MW-18I-070918 (240-98264-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 6020A: The continuing calibration verification (CCV) associated with batch 240-335609 recovered above the upper control limit for beryllium. The samples associated with this CCV were below the requested reporting limit for the affected analytes; therefore, the data have been reported. The following samples are impacted: DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), DMW-16S-070218 (240-98038-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8).

Method(s) 6020A: The continuing calibration verification (CCV) associated with batch 240-337207 recovered above the reporting limit for Beryllium. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following samples are impacted: MSA-MW-18I-070918 (240-98264-2) and MSA-MW-29D-070918 (240-98264-3).

Method(s) 200.8, 6020, 6020A: The continuing calibration verification (CCV) associated with batch 240-337442 recovered above the upper control limit for Beryllium. The samples associated with this CCV were below the requested reporting limit for the affected analyte; therefore, the data have been reported. The following sample is impacted: MSA-MW-38S-071018 (240-98352-4).

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

DISSOLVED MERCURY (CVAA)

Samples MSA-MW-18S-071018 (240-98320-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 07/05/2018, 07/09/2018, 07/11/2018 and 07/12/2018 and analyzed on 07/06/2018, 07/11/2018, 07/12/2018 and 07/13/2018.

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

TOTAL MERCURY

Samples MSA-MW-18S-071018 (240-98320-1), DMW-16D-070218 (240-98038-2), DMW-17S-070518 (240-98135-2), MSA-MW-18I-070918 (240-98264-2), DMW-5S-071018 (240-98352-2), DMW-16I-070218 (240-98038-3), DMW-17I-070518 (240-98135-3), MSA-MW-29D-070918 (240-98264-3), DMW-5I-071018 (240-98352-3), DMW-16S-070218 (240-98038-4), MSA-MW-38S-071018 (240-98352-4), MSA-MW-53S-070218 (240-98038-5), MSA-MW-53I-070218 (240-98038-6), MSA-MW-39S-070218 (240-98038-7) and MSA-MW-43S-070218 (240-98038-8) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 07/05/2018, 07/09/2018, 07/11/2018 and 07/12/2018 and analyzed on 07/06/2018, 07/11/2018, 07/12/2018 and 07/13/2018.

Mercury and Mercury, Dissolved failed the recovery criteria low for the MSD of sample MSA-MW-18I-070918MSD (240-98264-2) in batch 240-335916.

Refer to the QC report for details.

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

RADIUM-228

Samples DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), MSA-MW-29D-070918 (240-98264-3) and DMW-16S-070218 (240-98038-4) were analyzed for Radium-228 in accordance with EPA Method 904.0. The samples were prepared on 07/09/2018 and 07/12/2018 and analyzed on 07/12/2018 and 07/17/2018.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-374496:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3) and DMW-16S-070218 (240-98038-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-375081:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MSA-MW-29D-070918 (240-98264-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) 904.0: Ra-228 Prep Batch 160-374496

The Method Blank (MB) exhibited a negative result greater in magnitude than the 3 sigma TPU. This occurrence was evaluated and determined to be random in nature. Sporadic occurrences such as this are statistically expected. No further action is required.

(MB 160-374496/6-A)

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

ALKALINITY
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 07/13/2018 and 07/16/2018.

Alkalinity was detected in method blank MB 240-336369/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

TOTAL DISSOLVED SOLIDS
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for total dissolved solids in accordance with SM 2540C. The samples were analyzed on 07/12/2018.

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

TOTAL PHOSPHORUS
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for total phosphorus in accordance with SM 4500 P E. The samples were analyzed on 07/18/2018.

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

ANIONS
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for anions in accordance with EPA SW-846 Method 9056A. The samples were analyzed on 07/10/2018 and 07/12/2018.

Sample MSA-MW-18I-070918 (240-98264-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 9056A: The following sample was diluted due to the nature of the sample matrix: MSA-MW-18I-070918 (240-98264-2). Elevated reporting limits (RLs) are provided.

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

ANIONS
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for anions in accordance with EPA SW-846 Method 9056A. The samples were analyzed on 07/10/2018 and 07/12/2018.

Samples MSA-MW-18S-071018 (240-98264-1)[10X] and MSA-MW-18I-070918 (240-98264-2)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISOLVED ORGANIC CARBON
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for disolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 07/13/2018.

Dissolved Organic Carbon was detected in method blank MB 490-529167/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Method(s) 9060A: The method blank for analytical batch 490-529167 contained Dissolved Organic Carbon above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

AMMONIA TITRATION
Samples MSA-MW-18S-071018 (240-98320-1) and MSA-MW-18I-070918 (240-98264-2) were analyzed for Ammonia Titration in accordance with Standard Methods 4500 NH3-C. The samples were prepared and analyzed on 07/20/2018.

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

TOTAL ALPHA RADIUM

Samples DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3), MSA-MW-29D-070918 (240-98264-3) and DMW-16S-070218 (240-98038-4) were analyzed for Total Alpha Radium in accordance with EPA Method 903.0. The samples were prepared on 07/09/2018 and 07/12/2018 and analyzed on 07/12/2018 and 07/17/2018.

Total Alpha Radium was detected in method blank MB 160-374499/6-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Total Alpha Radium was detected in method blank MB 160-375078/4-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Method(s) PrecSep_0: Total Alpha Radium Prep Batch 160-374499:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: DMW-16D-070218 (240-98038-2), DMW-16I-070218 (240-98038-3) and DMW-16S-070218 (240-98038-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Total Alpha Radium Prep Batch 160-375078:

Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: MSA-MW-29D-070918 (240-98264-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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

Method Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-98038-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL CAN
RSK-175	Dissolved Gases (GC)	RSK	TAL CAN
552.2	Haloacetic Acids (HAAs) (GC)	EPA	TAL SAV
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL CAN
6850	Perchlorate by LC/MS or LC/MS/MS	EPA	TAL SAC
6010C	Metals (ICP)	SW846	TAL CAN
6020A	Metals (ICP/MS)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
2320B-1997	Alkalinity, Total	SM	TAL CAN
4500 NH3 C-1997	Ammonia	SM	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
9060A	Organic Carbon, Dissolved (DOC)	SW846	TAL NSH
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
SM4500 P E-1999	Phosphorus	SM	TAL CAN
903.0	Total Alpha Radium (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL CAN
4500 NH3 B-1997	Ammonia, Distillation	SM	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
552.2	Microextraction	EPA	TAL SAV
7470A	Preparation, Mercury	SW846	TAL CAN
Filtration	Sample Filtration	None	TAL SAC
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: MSA GW 2018

TestAmerica Job ID: 240-98038-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-98038-1	TB-070218	Water	07/02/18 00:00	07/03/18 09:30
240-98038-2	DMW-16D-070218	Water	07/02/18 09:00	07/03/18 09:30
240-98038-3	DMW-16I-070218	Water	07/02/18 10:26	07/03/18 09:30
240-98038-4	DMW-16S-070218	Water	07/02/18 11:40	07/03/18 09:30
240-98038-5	MSA-MW-53S-070218	Water	07/02/18 11:55	07/03/18 09:30
240-98038-6	MSA-MW-53I-070218	Water	07/02/18 13:25	07/03/18 09:30
240-98038-7	MSA-MW-39S-070218	Water	07/02/18 09:25	07/03/18 09:30
240-98038-8	MSA-MW-43S-070218	Water	07/02/18 10:35	07/03/18 09:30
240-98135-1	TB-070518	Water	07/05/18 00:00	07/06/18 09:30
240-98135-2	DMW-17S-070518	Water	07/05/18 09:00	07/06/18 09:30
240-98135-3	DMW-17I-070518	Water	07/05/18 10:14	07/06/18 09:30
240-98264-1	TB-070918	Water	07/09/18 00:00	07/10/18 09:25
240-98264-2	MSA-MW-18I-070918	Water	07/09/18 09:36	07/10/18 09:25
240-98264-3	MSA-MW-29D-070918	Water	07/09/18 14:50	07/10/18 09:25
240-98320-1	MSA-MW-18S-071018	Water	07/10/18 12:00	07/11/18 09:15
240-98352-1	TB-071018	Water	07/10/18 00:00	07/11/18 09:15
240-98352-2	DMW-5S-071018	Water	07/10/18 09:20	07/11/18 09:15
240-98352-3	DMW-5I-071018	Water	07/10/18 11:20	07/11/18 09:15
240-98352-4	MSA-MW-38S-071018	Water	07/10/18 14:35	07/11/18 09:15

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
TB-070218	240-98038-1	84	81	85	88
DMW-16D-070218	240-98038-2	85	83	88	91
DMW-16I-070218	240-98038-3	86	83	87	89
DMW-16S-070218	240-98038-4	83	81	85	89
MSA-MW-53S-070218	240-98038-5	84	83	86	88
MSA-MW-53I-070218	240-98038-6	89	85	89	92
MSA-MW-39S-070218	240-98038-7	84	81	87	91
MSA-MW-43S-070218	240-98038-8	85	82	86	90
TB-070518	240-98135-1	86	83	86	90
DMW-17S-070518	240-98135-2	83	81	86	90
DMW-17I-070518	240-98135-3	84	82	85	90
TB-070918	240-98264-1	98	107	105	106
MSA-MW-18I-070918	240-98264-2	102	108	109	110
MSA-MW-29D-070918	240-98264-3	100	107	105	103
MSA-MW-18S-071018	240-98320-1	96	98	98	91
TB-071018	240-98352-1	96	96	95	91
DMW-5S-071018	240-98352-2	94	99	97	90
DMW-5I-071018	240-98352-3	94	96	95	91
MSA-MW-38S-071018	240-98352-4	97	95	96	89
	MB 240-335864/9	83	84	87	91
	MB 240-336057/9	84	82	86	90
	MB 240-336272/9	101	106	104	106
	MB 240-337077/6	99	100	97	93
	LCS 240-335864/5	86	86	87	92
	LCS 240-336057/5	85	81	86	92
	LCS 240-336272/6	99	100	99	101
	LCS 240-337077/4	92	96	93	94
DMW-17I-070518 MS	240-98135-3 MS	87	82	86	91
DMW-5S-071018 MS	240-98352-2 MS	91	100	94	94
DMW-17I-070518 MSD	240-98135-3 MSD	84	82	89	95
DMW-5S-071018 MSD	240-98352-2 MSD	96	100	95	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	69-124
DCA = 1,2-Dichloroethane-d4 (Surr)	61-138
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	69-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12592.D

Lab ID: LCS 240-335864/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.9	99	73-136	
1,1,1-Trichloroethane	20.0	21.3	106	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.2	101	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	20.0	100	65-144	
1,1-Dichloroethane	20.0	21.0	105	74-120	
1,1-Dichloroethene	20.0	22.8	114	65-127	
1,1-Dichloropropene	20.0	20.5	103	80-122	
1,2,3-Trichlorobenzene	20.0	18.1	91	31-144	
1,2,3-Trichloropropane	20.0	20.0	100	53-134	
1,2,4-Trichlorobenzene	20.0	18.2	91	34-141	
1,2,4-Trimethylbenzene	20.0	18.2	91	80-120	
1,2-Dibromo-3-Chloropropane	20.0	19.2	96	50-130	
1,2-Dichlorobenzene	20.0	18.8	94	80-120	
1,2-Dichloroethane	20.0	20.5	102	68-133	
1,2-Dichloropropane	20.0	21.4	107	78-127	
1,3-Dichlorobenzene	20.0	18.5	92	80-120	
1,3-Dichloropropane	20.0	19.8	99	71-124	
1,4-Dichlorobenzene	20.0	19.0	95	80-120	
2,2-Dichloropropane	20.0	19.8	99	32-178	
2-Butanone (MEK)	40.0	43.1	108	43-149	
2-Chloroethyl vinyl ether	20.0	21.2	106	58-123	
2-Chlorotoluene	20.0	19.4	97	80-120	
2-Hexanone	40.0	40.7	102	28-169	
4-Chlorotoluene	20.0	19.4	97	79-120	
4-Isopropyltoluene	20.0	17.9	90	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	42.3	106	53-144	
Acetone	40.0	40.4	101	35-131	
Benzene	20.0	20.8	104	79-120	
Bromobenzene	20.0	19.2	96	73-120	
Bromoform	20.0	19.6	98	55-145	
Bromomethane	20.0	21.4	107	17-158	
Carbon disulfide	20.0	23.2	116	49-141	
Carbon tetrachloride	20.0	20.6	103	55-171	
Chlorobenzene	20.0	19.5	97	80-120	
Chlorodibromomethane	20.0	20.4	102	64-129	
Chloroethane	20.0	20.3	101	10-149	
Chloroform	20.0	20.7	104	80-120	
Chloromethane	20.0	19.2	96	59-124	
cis-1,2-Dichloroethene	20.0	21.3	107	77-120	
cis-1,3-Dichloropropene	20.0	21.7	109	75-120	
Dibromomethane	20.0	20.8	104	80-120	
Bromochloromethane	20.0	20.8	104	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12592.D

Lab ID: LCS 240-335864/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.4	82	42-141	
Bromodichloromethane	20.0	20.6	103	79-125	
tert-Butyl alcohol	200	228	114	52-136	
Ethylbenzene	20.0	19.9	99	80-120	
Hexachlorobutadiene	20.0	12.0	60	36-146	
Isopropylbenzene	20.0	19.1	96	80-128	
Methyl tert-butyl ether	20.0	20.6	103	73-120	
Methylene Chloride	20.0	20.4	102	64-140	
m-Xylene & p-Xylene	20.0	19.7	99	80-120	
Naphthalene	20.0	17.3	86	31-127	
n-Butylbenzene	20.0	16.2	81	60-137	
N-Propylbenzene	20.0	19.1	96	76-120	
o-Xylene	20.0	19.6	98	80-120	
sec-Butylbenzene	20.0	17.6	88	76-124	
Styrene	20.0	19.5	97	80-121	
Tetrachloroethene	20.0	19.0	95	80-122	
Toluene	20.0	19.7	98	78-120	
trans-1,2-Dichloroethene	20.0	21.9	109	74-124	
trans-1,3-Dichloropropene	20.0	19.5	98	67-120	
Trichloroethene	20.0	20.2	101	76-124	
Trichlorofluoromethane	20.0	19.3	97	27-176	
Vinyl acetate	20.0	24.2	121	42-141	
Vinyl chloride	20.0	21.1	105	65-124	
Xylenes, Total	40.0	39.3	98	80-120	
tert-Butylbenzene	20.0	16.7	83	79-120	
1,2-Dibromoethane	20.0	20.0	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12621.D

Lab ID: LCS 240-336057/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.4	97	73-136	
1,1,1-Trichloroethane	20.0	20.8	104	64-147	
1,1,2,2-Tetrachloroethane	20.0	19.7	98	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	19.6	98	65-144	
1,1-Dichloroethane	20.0	20.3	102	74-120	
1,1-Dichloroethene	20.0	23.0	115	65-127	
1,1-Dichloropropene	20.0	20.4	102	80-122	
1,2,3-Trichlorobenzene	20.0	18.8	94	31-144	
1,2,3-Trichloropropane	20.0	19.4	97	53-134	
1,2,4-Trichlorobenzene	20.0	18.5	92	34-141	
1,2,4-Trimethylbenzene	20.0	18.0	90	80-120	
1,2-Dibromo-3-Chloropropane	20.0	18.3	92	50-130	
1,2-Dichlorobenzene	20.0	18.4	92	80-120	
1,2-Dichloroethane	20.0	20.2	101	68-133	
1,2-Dichloropropane	20.0	21.2	106	78-127	
1,3-Dichlorobenzene	20.0	17.8	89	80-120	
1,3-Dichloropropane	20.0	19.6	98	71-124	
1,4-Dichlorobenzene	20.0	18.2	91	80-120	
2,2-Dichloropropane	20.0	21.8	109	32-178	
2-Butanone (MEK)	40.0	41.0	102	43-149	
2-Chloroethyl vinyl ether	20.0	21.1	105	58-123	
2-Chlorotoluene	20.0	18.8	94	80-120	
2-Hexanone	40.0	40.1	100	28-169	
4-Chlorotoluene	20.0	18.4	92	79-120	
4-Isopropyltoluene	20.0	17.7	88	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	41.6	104	53-144	
Acetone	40.0	41.1	103	35-131	
Benzene	20.0	20.6	103	79-120	
Bromobenzene	20.0	18.3	91	73-120	
Bromoform	20.0	19.1	95	55-145	
Bromomethane	20.0	21.7	109	17-158	
Carbon disulfide	20.0	23.4	117	49-141	
Carbon tetrachloride	20.0	20.5	102	55-171	
Chlorobenzene	20.0	19.1	96	80-120	
Chlorodibromomethane	20.0	20.1	101	64-129	
Chloroethane	20.0	20.0	100	10-149	
Chloroform	20.0	20.4	102	80-120	
Chloromethane	20.0	19.5	97	59-124	
cis-1,2-Dichloroethene	20.0	20.9	104	77-120	
cis-1,3-Dichloropropene	20.0	21.1	105	75-120	
Dibromomethane	20.0	20.5	103	80-120	
Bromochloromethane	20.0	21.0	105	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12621.D

Lab ID: LCS 240-336057/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	17.6	88	42-141	
Bromodichloromethane	20.0	20.2	101	79-125	
tert-Butyl alcohol	200	237	118	52-136	
Ethylbenzene	20.0	19.6	98	80-120	
Hexachlorobutadiene	20.0	12.6	63	36-146	
Isopropylbenzene	20.0	19.1	95	80-128	
Methyl tert-butyl ether	20.0	20.2	101	73-120	
Methylene Chloride	20.0	19.9	99	64-140	
m-Xylene & p-Xylene	20.0	19.4	97	80-120	
Naphthalene	20.0	17.5	87	31-127	
n-Butylbenzene	20.0	16.3	81	60-137	
N-Propylbenzene	20.0	18.4	92	76-120	
o-Xylene	20.0	19.3	96	80-120	
sec-Butylbenzene	20.0	17.2	86	76-124	
Styrene	20.0	19.3	96	80-121	
Tetrachloroethene	20.0	19.3	97	80-122	
Toluene	20.0	19.4	97	78-120	
trans-1,2-Dichloroethene	20.0	21.8	109	74-124	
trans-1,3-Dichloropropene	20.0	19.1	96	67-120	
Trichloroethene	20.0	19.6	98	76-124	
Trichlorofluoromethane	20.0	20.1	101	27-176	
Vinyl acetate	20.0	23.9	120	42-141	
Vinyl chloride	20.0	21.4	107	65-124	
Xylenes, Total	40.0	38.7	97	80-120	
tert-Butylbenzene	20.0	17.8	89	79-120	
1,2-Dibromoethane	20.0	19.5	98	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900628.d

Lab ID: LCS 240-336272/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	20.0	19.7	98	73-136	
1,1,1-Trichloroethane	20.0	20.4	102	64-147	
1,1,2,2-Tetrachloroethane	20.0	20.9	104	58-122	
1,1,2-Trichlorotrifluoroethane	20.0	21.1	105	65-144	
1,1-Dichloroethane	20.0	19.8	99	74-120	
1,1-Dichloroethene	20.0	20.5	103	65-127	
1,1-Dichloropropene	20.0	19.5	98	80-122	
1,2,3-Trichlorobenzene	20.0	20.4	102	31-144	
1,2,3-Trichloropropane	20.0	21.0	105	53-134	
1,2,4-Trichlorobenzene	20.0	19.9	100	34-141	
1,2,4-Trimethylbenzene	20.0	20.4	102	80-120	
1,2-Dibromo-3-Chloropropane	20.0	20.2	101	50-130	
1,2-Dichlorobenzene	20.0	20.3	101	80-120	
1,2-Dichloroethane	20.0	19.7	99	68-133	
1,2-Dichloropropane	20.0	21.5	108	78-127	
1,3-Dichlorobenzene	20.0	20.3	101	80-120	
1,3-Dichloropropane	20.0	20.5	103	71-124	
1,4-Dichlorobenzene	20.0	20.0	100	80-120	
2,2-Dichloropropane	20.0	21.1	106	32-178	
2-Butanone (MEK)	40.0	41.6	104	43-149	
2-Chloroethyl vinyl ether	20.0	22.6	113	58-123	
2-Chlorotoluene	20.0	20.3	102	80-120	
2-Hexanone	40.0	42.8	107	28-169	
4-Chlorotoluene	20.0	21.1	105	79-120	
4-Isopropyltoluene	20.0	21.1	105	78-125	
4-Methyl-2-pentanone (MIBK)	40.0	42.7	107	53-144	
Acetone	40.0	37.1	93	35-131	
Benzene	20.0	19.8	99	79-120	
Bromobenzene	20.0	21.1	106	73-120	
Bromoform	20.0	20.5	103	55-145	
Bromomethane	20.0	19.1	95	17-158	
Carbon disulfide	20.0	20.3	102	49-141	
Carbon tetrachloride	20.0	20.2	101	55-171	
Chlorobenzene	20.0	20.2	101	80-120	
Chlorodibromomethane	20.0	20.3	102	64-129	
Chloroethane	20.0	19.9	100	10-149	
Chloroform	20.0	19.5	98	80-120	
Chloromethane	20.0	18.7	94	59-124	
cis-1,2-Dichloroethene	20.0	19.7	98	77-120	
cis-1,3-Dichloropropene	20.0	21.6	108	75-120	
Dibromomethane	20.0	19.8	99	80-120	
Bromochloromethane	20.0	19.3	96	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U1900628.d

Lab ID: LCS 240-336272/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	20.0	16.1	81	42-141	
Bromodichloromethane	20.0	20.3	101	79-125	
tert-Butyl alcohol	200	201	101	52-136	
Ethylbenzene	20.0	19.6	98	80-120	
Hexachlorobutadiene	20.0	20.2	101	36-146	
Isopropylbenzene	20.0	20.1	100	80-128	
Methyl tert-butyl ether	20.0	19.9	99	73-120	
Methylene Chloride	20.0	18.8	94	64-140	
m-Xylene & p-Xylene	20.0	20.3	101	80-120	
Naphthalene	20.0	20.5	102	31-127	
n-Butylbenzene	20.0	20.5	102	60-137	
N-Propylbenzene	20.0	20.7	104	76-120	
o-Xylene	20.0	20.0	100	80-120	
sec-Butylbenzene	20.0	20.5	102	76-124	
Styrene	20.0	20.0	100	80-121	
Tetrachloroethene	20.0	19.7	99	80-122	
Toluene	20.0	19.8	99	78-120	
trans-1,2-Dichloroethene	20.0	20.3	102	74-124	
trans-1,3-Dichloropropene	20.0	20.3	101	67-120	
Trichloroethene	20.0	19.8	99	76-124	
Trichlorofluoromethane	20.0	19.0	95	27-176	
Vinyl acetate	20.0	23.7	118	42-141	
Vinyl chloride	20.0	19.2	96	65-124	
Xylenes, Total	40.0	40.3	101	80-120	
tert-Butylbenzene	20.0	20.8	104	79-120	
1,2-Dibromoethane	20.0	20.1	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3105.D

Lab ID: LCS 240-337077/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.34	93	73-136	
1,1,1-Trichloroethane	10.0	9.36	94	64-147	
1,1,2,2-Tetrachloroethane	10.0	9.55	95	58-122	
1,1,2-Trichlorotrifluoroethane	10.0	8.04	80	65-144	
1,1-Dichloroethane	10.0	10.1	101	74-120	
1,1-Dichloroethene	10.0	8.83	88	65-127	
1,1-Dichloropropene	10.0	9.12	91	80-122	
1,2,3-Trichlorobenzene	10.0	9.28	93	31-144	
1,2,3-Trichloropropane	10.0	9.32	93	53-134	
1,2,4-Trichlorobenzene	10.0	9.18	92	34-141	
1,2,4-Trimethylbenzene	10.0	10.3	103	80-120	
1,2-Dibromo-3-Chloropropane	10.0	10.4	104	50-130	
1,2-Dichlorobenzene	10.0	9.74	97	80-120	
1,2-Dichloroethane	10.0	9.95	100	68-133	
1,2-Dichloropropane	10.0	10.5	105	78-127	
1,3-Dichlorobenzene	10.0	9.79	98	80-120	
1,3-Dichloropropane	10.0	9.91	99	71-124	
1,4-Dichlorobenzene	10.0	9.77	98	80-120	
2,2-Dichloropropane	10.0	8.82	88	32-178	
2-Butanone (MEK)	20.0	20.7	104	43-149	
2-Chloroethyl vinyl ether	10.0	9.46 J	95	58-123	
2-Chlorotoluene	10.0	9.57	96	80-120	
2-Hexanone	20.0	17.6	88	28-169	
4-Chlorotoluene	10.0	9.72	97	79-120	
4-Isopropyltoluene	10.0	10.5	105	78-125	
4-Methyl-2-pentanone (MIBK)	20.0	18.1	91	53-144	
Acetone	20.0	20.4	102	35-131	
Benzene	10.0	9.74	97	79-120	
Bromobenzene	10.0	8.89	89	73-120	
Bromoform	10.0	13.3	133	55-145	
Bromomethane	10.0	9.69	97	17-158	
Carbon disulfide	10.0	10.1	101	49-141	
Carbon tetrachloride	10.0	8.43	84	55-171	
Chlorobenzene	10.0	9.65	96	80-120	
Chlorodibromomethane	10.0	11.7	117	64-129	
Chloroethane	10.0	9.96	100	10-149	
Chloroform	10.0	9.91	99	80-120	
Chloromethane	10.0	8.58	86	59-124	
cis-1,2-Dichloroethene	10.0	9.22	92	77-120	
cis-1,3-Dichloropropene	10.0	9.69	97	75-120	
Dibromomethane	10.0	9.08	91	80-120	
Bromochloromethane	10.0	9.24	92	78-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3105.D

Lab ID: LCS 240-337077/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	7.05	71	42-141	
Bromodichloromethane	10.0	10.3	103	79-125	
tert-Butyl alcohol	100	82.2	82	52-136	
Ethylbenzene	10.0	9.59	96	80-120	
Hexachlorobutadiene	10.0	7.39	74	36-146	
Isopropylbenzene	10.0	10.7	107	80-128	
Methyl tert-butyl ether	10.0	9.33	93	73-120	
Methylene Chloride	10.0	9.94	99	64-140	
m-Xylene & p-Xylene	10.0	9.97	100	80-120	
Naphthalene	10.0	8.41	84	31-127	
n-Butylbenzene	10.0	11.2	112	60-137	
N-Propylbenzene	10.0	10.1	101	76-120	
o-Xylene	10.0	10.1	101	80-120	
sec-Butylbenzene	10.0	10.8	108	76-124	
Styrene	10.0	9.98	100	80-121	
Tetrachloroethene	10.0	8.91	89	80-122	
Toluene	10.0	9.99	100	78-120	
trans-1,2-Dichloroethene	10.0	9.49	95	74-124	
trans-1,3-Dichloropropene	10.0	9.14	91	67-120	
Trichloroethene	10.0	9.00	90	76-124	
Trichlorofluoromethane	10.0	9.72	97	27-176	
Vinyl acetate	10.0	9.58	96	42-141	
Vinyl chloride	10.0	9.03	90	65-124	
Xylenes, Total	20.0	20.1	100	80-120	
tert-Butylbenzene	10.0	10.1	101	79-120	
1,2-Dibromoethane	10.0	9.12	91	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12639.D

Lab ID: 240-98135-3 MS Client ID: DMW-17I-070518 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	500	3.5 U	462	92	67-142	
1,1,1-Trichloroethane	500	6.0 U	510	102	57-156	
1,1,2,2-Tetrachloroethane	500	3.3 U	483	97	51-123	
1,1,2-Trichlorotrifluoroethane	500	10 U	486	97	58-137	
1,1-Dichloroethane	500	4.3 U	507	101	69-122	
1,1-Dichloroethene	500	4.8 U	564	113	62-127	
1,1-Dichloropropene	500	3.5 U	493	99	55-136	
1,2,3-Trichlorobenzene	500	14 U	372	74	40-139	
1,2,3-Trichloropropane	500	6.0 U	480	96	41-152	
1,2,4-Trichlorobenzene	500	6.5 U	384	77	26-138	
1,2,4-Trimethylbenzene	500	1.8 U	413	83	64-120	
1,2-Dibromo-3-Chloropropane	500	23 U	426	85	48-130	
1,2-Dichlorobenzene	500	3.8 U	437	87	70-120	
1,2-Dichloroethane	500	5.8 J	498	98	64-138	
1,2-Dichloropropane	500	3.8 U	517	103	72-131	
1,3-Dichlorobenzene	500	3.8 U	427	85	71-120	
1,3-Dichloropropane	500	5.3 U	474	95	58-137	
1,4-Dichlorobenzene	500	4.0 U	435	87	72-120	
2,2-Dichloropropane	500	7.8 U	664	133	34-153	
2-Butanone (MEK)	1000	29 U	994	99	34-153	
2-Chloroethyl vinyl ether	500	6.5 U	74.2 J	15	10-120	
2-Chlorotoluene	500	3.8 U	446	89	52-134	
2-Hexanone	1000	14 U	917	92	21-184	
4-Chlorotoluene	500	2.3 U	439	88	52-133	
4-Isopropyltoluene	500	3.3 U	392	78	70-120	
4-Methyl-2-pentanone (MIBK)	1000	11 U	960	96	53-147	
Acetone	1000	140 U	889	89	19-133	
Benzene	500	3.3 U	506	101	69-127	
Bromobenzene	500	3.0 U	446	89	59-131	
Bromoform	500	19 U	414	83	61-135	
Bromomethane	500	11 U	517	103	10-148	
Carbon disulfide	500	7.0 U	508	102	46-143	
Carbon tetrachloride	500	6.5 U	475	95	53-175	
Chlorobenzene	500	3.5 U	457	91	76-120	
Chlorodibromomethane	500	9.8 U	465	93	62-131	
Chloroethane	500	21 U	496	99	10-141	
Chloroform	500	3.3 U	506	101	74-125	
Chloromethane	500	5.0 U	487	97	34-127	
cis-1,2-Dichloroethene	500	990	1530	108	69-127	
cis-1,3-Dichloropropene	500	15 U	502	100	68-120	
Dibromomethane	500	2.3 U	490	98	73-120	
Bromochloromethane	500	3.5 U	517	103	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12639.D

Lab ID: 240-98135-3 MS Client ID: DMW-17I-070518 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	500	8.8 U	434	87	45-130	
Bromodichloromethane	500	4.3 U	487	97	75-128	
tert-Butyl alcohol	5000	42 U	4670	93	70-130	
Ethylbenzene	500	2.8 U	452	90	72-121	
Hexachlorobutadiene	500	21 U	237	47	30-134	
Isopropylbenzene	500	2.3 U	438	88	70-132	
Methyl tert-butyl ether	500	1.8 U	496	99	67-125	
Methylene Chloride	500	66 U	503	101	52-137	
m-Xylene & p-Xylene	500	2.0 U	450	90	70-121	
Naphthalene	500	8.0 U	376	75	28-150	
n-Butylbenzene	500	3.5 U	344	69	38-133	
N-Propylbenzene	500	3.8 U	436	87	50-134	
o-Xylene	500	2.3 U	463	93	71-125	
sec-Butylbenzene	500	3.3 U	380	76	43-133	
Styrene	500	2.5 U	454	91	74-125	
Tetrachloroethene	500	3.8 U	441	88	69-126	
Toluene	500	3.5 U	469	94	69-125	
trans-1,2-Dichloroethene	500	4.8 U	538	108	66-131	
trans-1,3-Dichloropropene	500	17 U	450	90	59-120	
Trichloroethene	500	510	999	99	68-129	
Trichlorofluoromethane	500	11 U	481	96	28-172	
Vinyl acetate	500	4.8 U	591	118	51-134	
Vinyl chloride	500	32	561	106	55-123	
Xylenes, Total	1000	3.8 U	913	91	71-122	
tert-Butylbenzene	500	3.5 U	411	82	48-131	
1,2-Dibromoethane	500	3.0 U	470	94	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3114.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10000	140 U	8890	89	67-142	
1,1,1-Trichloroethane	10000	240 U	8250	82	57-156	
1,1,2,2-Tetrachloroethane	10000	130 U	9430	94	51-123	
1,1,2-Trichlorotrifluoroethane	10000	410 U	6740	67	58-137	
1,1-Dichloroethane	10000	170 U	9880	99	69-122	
1,1-Dichloroethene	10000	190 U	7950	80	62-127	
1,1-Dichloropropene	10000	140 U	8420	84	55-136	
1,2,3-Trichlorobenzene	10000	540 U	9220	92	40-139	
1,2,3-Trichloropropane	10000	240 U	9250	93	41-152	
1,2,4-Trichlorobenzene	10000	260 U	9650	96	26-138	
1,2,4-Trimethylbenzene	10000	70 U	10400	104	64-120	
1,2-Dibromo-3-Chloropropane	10000	910 U	9820	98	48-130	
1,2-Dichlorobenzene	10000	150 U	9920	99	70-120	
1,2-Dichloroethane	10000	210 U	10200	102	64-138	
1,2-Dichloropropane	10000	150 U	10300	103	72-131	
1,3-Dichlorobenzene	10000	150 U	9790	98	71-120	
1,3-Dichloropropane	10000	210 U	10000	100	58-137	
1,4-Dichlorobenzene	10000	160 U	9850	99	72-120	
2,2-Dichloropropane	10000	310 U	9540	95	34-153	
2-Butanone (MEK)	20000	1200 U	21400	107	34-153	
2-Chloroethyl vinyl ether	10000	260 U	9490 J	95	10-120	
2-Chlorotoluene	10000	150 U	9520	95	52-134	
2-Hexanone	20000	540 U	18500	92	21-184	
4-Chlorotoluene	10000	90 U	9780	98	52-133	
4-Isopropyltoluene	10000	130 U	9970	100	70-120	
4-Methyl-2-pentanone (MIBK)	20000	420 U	18700	94	53-147	
Acetone	20000	5400 U	18900	94	19-133	
Benzene	10000	130 U	9700	97	69-127	
Bromobenzene	10000	120 U	8750	88	59-131	
Bromoform	10000	760 U	12500	125	61-135	
Bromomethane	10000	420 U	8920	89	10-148	
Carbon disulfide	10000	280 U	8660	87	46-143	
Carbon tetrachloride	10000	260 U	7050	71	53-175	
Chlorobenzene	10000	140 U	9550	95	76-120	
Chlorodibromomethane	10000	390 U	11400	114	62-131	
Chloroethane	10000	830 U	8430	84	10-141	
Chloroform	10000	130 U	9840	98	74-125	
Chloromethane	10000	200 U	8030	80	34-127	
cis-1,2-Dichloroethene	10000	6100	15600	95	69-127	
cis-1,3-Dichloropropene	10000	610 U	9490	95	68-120	
Dibromomethane	10000	90 U	9330	93	73-120	
Bromochloromethane	10000	140 U	8880	89	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3114.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10000	350 U	5180	52	45-130	
Bromodichloromethane	10000	170 U	10300	103	75-128	
tert-Butyl alcohol	100000	1700 U	66600	67	70-130	F1
Ethylbenzene	10000	110 U	9470	95	72-121	
Hexachlorobutadiene	10000	830 U	6880	69	30-134	
Isopropylbenzene	10000	90 U	9980	100	70-132	
Methyl tert-butyl ether	10000	70 U	9480	95	67-125	
Methylene Chloride	10000	2600 U	9890	99	52-137	
m-Xylene & p-Xylene	10000	80 U	9500	95	70-121	
Naphthalene	10000	320 U	8740	87	28-150	
n-Butylbenzene	10000	140 U	10400	104	38-133	
N-Propylbenzene	10000	150 U	9910	99	50-134	
o-Xylene	10000	90 U	10000	100	71-125	
sec-Butylbenzene	10000	130 U	10200	102	43-133	
Styrene	10000	100 U	9760	98	74-125	
Tetrachloroethene	10000	150 U	7910	79	69-126	
Toluene	10000	140 U	9720	97	69-125	
trans-1,2-Dichloroethene	10000	190 U	9240	92	66-131	
trans-1,3-Dichloropropene	10000	670 U	8870	89	59-120	
Trichloroethene	10000	19000	27400	85	68-129	
Trichlorofluoromethane	10000	450 U	7140	71	28-172	
Vinyl acetate	10000	190 U	9950	100	51-134	
Vinyl chloride	10000	350 J	7560	72	55-123	
Xylenes, Total	20000	150 U	19500	98	71-122	
tert-Butylbenzene	10000	140 U	9650	96	48-131	
1,2-Dibromoethane	10000	120 U	9320	93	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12640.D

Lab ID: 240-98135-3 MSD Client ID: DMW-17I-070518 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	500	473	95	2	18	67-142	
1,1,1-Trichloroethane	500	496	99	3	13	57-156	
1,1,2,2-Tetrachloroethane	500	477	95	1	17	51-123	
1,1,2-Trichlorotrifluoroethane	500	492	98	1	35	58-137	
1,1-Dichloroethane	500	504	101	1	11	69-122	
1,1-Dichloroethene	500	558	112	1	14	62-127	
1,1-Dichloropropene	500	493	99	0	35	55-136	
1,2,3-Trichlorobenzene	500	427	85	14	35	40-139	
1,2,3-Trichloropropane	500	473	95	2	12	41-152	
1,2,4-Trichlorobenzene	500	437	87	13	35	26-138	
1,2,4-Trimethylbenzene	500	438	88	6	22	64-120	
1,2-Dibromo-3-Chloropropane	500	417	83	2	31	48-130	
1,2-Dichlorobenzene	500	444	89	2	19	70-120	
1,2-Dichloroethane	500	490	97	2	11	64-138	
1,2-Dichloropropane	500	512	102	1	12	72-131	
1,3-Dichlorobenzene	500	435	87	2	18	71-120	
1,3-Dichloropropane	500	485	97	2	35	58-137	
1,4-Dichlorobenzene	500	443	89	2	17	72-120	
2,2-Dichloropropane	500	635	127	4	35	34-153	
2-Butanone (MEK)	1000	1060	106	6	23	34-153	
2-Chloroethyl vinyl ether	500	58.3 J	12	24	35	10-120	
2-Chlorotoluene	500	453	91	2	35	52-134	
2-Hexanone	1000	964	96	5	12	21-184	
4-Chlorotoluene	500	446	89	2	35	52-133	
4-Isopropyltoluene	500	429	86	9	22	70-120	
4-Methyl-2-pentanone (MIBK)	1000	969	97	1	16	53-147	
Acetone	1000	956	96	7	35	19-133	
Benzene	500	503	101	1	10	69-127	
Bromobenzene	500	454	91	2	35	59-131	
Bromoform	500	434	87	5	13	61-135	
Bromomethane	500	508	102	2	35	10-148	
Carbon disulfide	500	543	109	6	18	46-143	
Carbon tetrachloride	500	484	97	2	17	53-175	
Chlorobenzene	500	476	95	4	12	76-120	
Chlorodibromomethane	500	482	96	4	15	62-131	
Chloroethane	500	487	97	2	35	10-141	
Chloroform	500	488	98	4	11	74-125	
Chloromethane	500	473	95	3	25	34-127	
cis-1,2-Dichloroethene	500	1500	103	2	11	69-127	
cis-1,3-Dichloropropene	500	501	100	0	13	68-120	
Dibromomethane	500	491	98	0	16	73-120	
Bromochloromethane	500	503	101	3	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM12640.D

Lab ID: 240-98135-3 MSD Client ID: DMW-17I-070518 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	500	409	82	6	34	45-130	
Bromodichloromethane	500	480	96	1	13	75-128	
tert-Butyl alcohol	5000	5270	105	12	35	70-130	
Ethylbenzene	500	476	95	5	15	72-121	
Hexachlorobutadiene	500	296	59	22	35	30-134	
Isopropylbenzene	500	471	94	7	16	70-132	
Methyl tert-butyl ether	500	485	97	2	12	67-125	
Methylene Chloride	500	485	97	4	12	52-137	
m-Xylene & p-Xylene	500	472	94	5	15	70-121	
Naphthalene	500	396	79	5	35	28-150	
n-Butylbenzene	500	386	77	11	35	38-133	
N-Propylbenzene	500	450	90	3	35	50-134	
o-Xylene	500	480	96	4	15	71-125	
sec-Butylbenzene	500	423	85	11	35	43-133	
Styrene	500	474	95	4	14	74-125	
Tetrachloroethene	500	452	90	2	18	69-126	
Toluene	500	485	97	3	14	69-125	
trans-1,2-Dichloroethene	500	528	106	2	11	66-131	
trans-1,3-Dichloropropene	500	463	93	3	14	59-120	
Trichloroethene	500	1010	101	1	12	68-129	
Trichlorofluoromethane	500	472	94	2	26	28-172	
Vinyl acetate	500	578	116	2	12	51-134	
Vinyl chloride	500	548	103	2	12	55-123	
Xylenes, Total	1000	952	95	4	14	71-122	
tert-Butylbenzene	500	437	87	6	35	48-131	
1,2-Dibromoethane	500	482	96	3	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3115.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10000	9060	91	2	18	67-142	
1,1,1-Trichloroethane	10000	9590	96	15	13	57-156	F2
1,1,2,2-Tetrachloroethane	10000	9870	99	5	17	51-123	
1,1,2-Trichlorotrifluoroethane	10000	8460	85	23	35	58-137	
1,1-Dichloroethane	10000	10200	102	4	11	69-122	
1,1-Dichloroethene	10000	9330	93	16	14	62-127	F2
1,1-Dichloropropene	10000	9920	99	16	35	55-136	
1,2,3-Trichlorobenzene	10000	9450	95	2	35	40-139	
1,2,3-Trichloropropane	10000	9280	93	0	12	41-152	
1,2,4-Trichlorobenzene	10000	9540	95	1	35	26-138	
1,2,4-Trimethylbenzene	10000	10500	105	1	22	64-120	
1,2-Dibromo-3-Chloropropane	10000	10500	105	7	31	48-130	
1,2-Dichlorobenzene	10000	10200	102	3	19	70-120	
1,2-Dichloroethane	10000	10300	103	2	11	64-138	
1,2-Dichloropropane	10000	10900	109	6	12	72-131	
1,3-Dichlorobenzene	10000	10100	101	4	18	71-120	
1,3-Dichloropropane	10000	9750	97	3	35	58-137	
1,4-Dichlorobenzene	10000	9980	100	1	17	72-120	
2,2-Dichloropropane	10000	10100	101	6	35	34-153	
2-Butanone (MEK)	20000	22100	110	3	23	34-153	
2-Chloroethyl vinyl ether	10000	9940 J	99	5	35	10-120	
2-Chlorotoluene	10000	9510	95	0	35	52-134	
2-Hexanone	20000	19000	95	3	12	21-184	
4-Chlorotoluene	10000	9760	98	0	35	52-133	
4-Isopropyltoluene	10000	10700	107	7	22	70-120	
4-Methyl-2-pentanone (MIBK)	20000	19400	97	4	16	53-147	
Acetone	20000	19900	100	5	35	19-133	
Benzene	10000	9970	100	3	10	69-127	
Bromobenzene	10000	8750	88	0	35	59-131	
Bromoform	10000	12800	128	2	13	61-135	
Bromomethane	10000	9700	97	8	35	10-148	
Carbon disulfide	10000	10300	103	17	18	46-143	
Carbon tetrachloride	10000	8410	84	18	17	53-175	F2
Chlorobenzene	10000	9590	96	0	12	76-120	
Chlorodibromomethane	10000	11600	116	2	15	62-131	
Chloroethane	10000	9870	99	16	35	10-141	
Chloroform	10000	10500	105	6	11	74-125	
Chloromethane	10000	8990	90	11	25	34-127	
cis-1,2-Dichloroethene	10000	15700	97	1	11	69-127	
cis-1,3-Dichloropropene	10000	10200	102	7	13	68-120	
Dibromomethane	10000	9560	96	2	16	73-120	
Bromochloromethane	10000	9250	92	4	15	66-132	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXJ3115.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorodifluoromethane	10000	7620	76	38	34	45-130	F2
Bromodichloromethane	10000	10700	107	3	13	75-128	
tert-Butyl alcohol	100000	80400	80	19	35	70-130	
Ethylbenzene	10000	9720	97	3	15	72-121	
Hexachlorobutadiene	10000	7850	78	13	35	30-134	
Isopropylbenzene	10000	10700	107	7	16	70-132	
Methyl tert-butyl ether	10000	9770	98	3	12	67-125	
Methylene Chloride	10000	10200	102	4	12	52-137	
m-Xylene & p-Xylene	10000	10100	101	6	15	70-121	
Naphthalene	10000	9080	91	4	35	28-150	
n-Butylbenzene	10000	11400	114	9	35	38-133	
N-Propylbenzene	10000	10300	103	4	35	50-134	
o-Xylene	10000	10200	102	1	15	71-125	
sec-Butylbenzene	10000	11100	111	8	35	43-133	
Styrene	10000	9960	100	2	14	74-125	
Tetrachloroethene	10000	8990	90	13	18	69-126	
Toluene	10000	10100	101	3	14	69-125	
trans-1,2-Dichloroethene	10000	10000	100	8	11	66-131	
trans-1,3-Dichloropropene	10000	9100	91	3	14	59-120	
Trichloroethene	10000	27800	90	2	12	68-129	
Trichlorofluoromethane	10000	9540	95	29	26	28-172	F2
Vinyl acetate	10000	10400	104	4	12	51-134	
Vinyl chloride	10000	9500	91	23	12	55-123	F2
Xylenes, Total	20000	20300	102	4	14	71-122	
tert-Butylbenzene	10000	10300	103	7	35	48-131	
1,2-Dibromoethane	10000	9340	93	0	12	73-121	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: UXM12596.D Lab Sample ID: MB 240-335864/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/12/2018 11:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-335864/5	UXM12592.D	07/12/2018 10:01
TB-070218	240-98038-1	UXM12612.D	07/12/2018 18:19
DMW-16D-070218	240-98038-2	UXM12613.D	07/12/2018 18:42
DMW-16I-070218	240-98038-3	UXM12614.D	07/12/2018 19:06
DMW-16S-070218	240-98038-4	UXM12615.D	07/12/2018 19:30
MSA-MW-53S-070218	240-98038-5	UXM12616.D	07/12/2018 19:54
MSA-MW-53I-070218	240-98038-6	UXM12617.D	07/12/2018 20:17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335864/9

Matrix: Water | Lab File ID: UXM12596.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335864/9

Matrix: Water | Lab File ID: UXM12596.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335864/9

Matrix: Water Lab File ID: UXM12596.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		73-120
1868-53-7	Dibromofluoromethane (Surr)	83		69-124
460-00-4	4-Bromofluorobenzene (Surr)	91		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-335864/9

Matrix: Water Lab File ID: UXM12596.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 335864 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335864/9

Matrix: Water | Lab File ID: UXM12596.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/12/2018 11:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335864 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: UXM12625.D Lab Sample ID: MB 240-336057/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 07/13/2018 12:10

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-336057/5	UXM12621.D	07/13/2018 09:52
MSA-MW-39S-070218	240-98038-7	UXM12630.D	07/13/2018 14:24
MSA-MW-43S-070218	240-98038-8	UXM12631.D	07/13/2018 14:48
TB-070518	240-98135-1	UXM12636.D	07/13/2018 16:47
DMW-17S-070518	240-98135-2	UXM12637.D	07/13/2018 17:10
DMW-17I-070518	240-98135-3	UXM12638.D	07/13/2018 17:34
DMW-17I-070518 MS	240-98135-3 MS	UXM12639.D	07/13/2018 17:58
DMW-17I-070518 MSD	240-98135-3 MSD	UXM12640.D	07/13/2018 18:22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336057/9

Matrix: Water Lab File ID: UXM12625.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	86		73-120
1868-53-7	Dibromofluoromethane (Surr)	84		69-124
460-00-4	4-Bromofluorobenzene (Surr)	90		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336057/9

Matrix: Water Lab File ID: UXM12625.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336057 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I-TIC 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336057/9

Matrix: Water | Lab File ID: UXM12625.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/13/2018 12:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336057 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: U1900631.d Lab Sample ID: MB 240-336272/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX19 Date Analyzed: 07/15/2018 13:25

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-336272/6	U1900628.d	07/15/2018 12:18
TB-070918	240-98264-1	U1900639.d	07/15/2018 16:23
MSA-MW-18I-070918	240-98264-2	U1900640.d	07/15/2018 16:45
MSA-MW-29D-070918	240-98264-3	U1900641.d	07/15/2018 17:07

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336272/9

Matrix: Water | Lab File ID: U1900631.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336272/9

Matrix: Water | Lab File ID: U1900631.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336272/9

Matrix: Water Lab File ID: U1900631.d

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/15/2018 13:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336272 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		69-124
460-00-4	4-Bromofluorobenzene (Surr)	106		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336272/9

Matrix: Water | Lab File ID: U1900631.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336272/9

Matrix: Water | Lab File ID: U1900631.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/15/2018 13:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336272 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: UXJ3110.D Lab Sample ID: MB 240-337077/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX11 Date Analyzed: 07/19/2018 13:05

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-337077/4	UXJ3105.D	07/19/2018 11:11
TB-071018	240-98352-1	UXJ3112.D	07/19/2018 13:50
DMW-5S-071018	240-98352-2	UXJ3113.D	07/19/2018 14:14
DMW-5S-071018 MS	240-98352-2 MS	UXJ3114.D	07/19/2018 14:37
DMW-5S-071018 MSD	240-98352-2 MSD	UXJ3115.D	07/19/2018 15:00
DMW-5I-071018	240-98352-3	UXJ3116.D	07/19/2018 15:23
MSA-MW-38S-071018	240-98352-4	UXJ3117.D	07/19/2018 15:46
MSA-MW-18S-071018	240-98320-1	UXJ3118.D	07/19/2018 16:09

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-337077/6

Matrix: Water | Lab File ID: UXJ3110.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	0.14	U	1.0	0.14
71-55-6	1,1,1-Trichloroethane	0.24	U	1.0	0.24
79-34-5	1,1,2,2-Tetrachloroethane	0.13	U	1.0	0.13
76-13-1	1,1,2-Trichlorotrifluoroethane	0.41	U	1.0	0.41
75-34-3	1,1-Dichloroethane	0.17	U	1.0	0.17
75-35-4	1,1-Dichloroethene	0.19	U	1.0	0.19
563-58-6	1,1-Dichloropropene	0.14	U	1.0	0.14
87-61-6	1,2,3-Trichlorobenzene	0.54	U	1.0	0.54
96-18-4	1,2,3-Trichloropropane	0.24	U	1.0	0.24
526-73-8	1,2,3-Trimethylbenzene	0.14	U	5.0	0.14
120-82-1	1,2,4-Trichlorobenzene	0.26	U	1.0	0.26
95-63-6	1,2,4-Trimethylbenzene	0.070	U	1.0	0.070
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	2.0	0.91
95-50-1	1,2-Dichlorobenzene	0.15	U	1.0	0.15
107-06-2	1,2-Dichloroethane	0.21	U	1.0	0.21
78-87-5	1,2-Dichloropropane	0.15	U	1.0	0.15
541-73-1	1,3-Dichlorobenzene	0.15	U	1.0	0.15
142-28-9	1,3-Dichloropropane	0.21	U	1.0	0.21
106-46-7	1,4-Dichlorobenzene	0.16	U	1.0	0.16
594-20-7	2,2-Dichloropropane	0.31	U	1.0	0.31
78-93-3	2-Butanone (MEK)	1.2	U	10	1.2
110-75-8	2-Chloroethyl vinyl ether	0.26	U	10	0.26
95-49-8	2-Chlorotoluene	0.15	U	1.0	0.15
591-78-6	2-Hexanone	0.54	U	10	0.54
106-43-4	4-Chlorotoluene	0.090	U	1.0	0.090
99-87-6	4-Isopropyltoluene	0.13	U	1.0	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	0.42	U	10	0.42
67-64-1	Acetone	5.4	U	10	5.4
71-43-2	Benzene	0.13	U	1.0	0.13
108-86-1	Bromobenzene	0.12	U	1.0	0.12
75-25-2	Bromoform	0.76	U	1.0	0.76
74-83-9	Bromomethane	0.42	U	1.0	0.42
75-15-0	Carbon disulfide	0.28	U	1.0	0.28
56-23-5	Carbon tetrachloride	0.26	U	1.0	0.26
108-90-7	Chlorobenzene	0.14	U	1.0	0.14
124-48-1	Chlorodibromomethane	0.39	U	1.0	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-337077/6

Matrix: Water | Lab File ID: UXJ3110.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-00-3	Chloroethane	0.83	U	1.0	0.83
67-66-3	Chloroform	0.13	U	1.0	0.13
74-87-3	Chloromethane	0.20	U	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.16	U	1.0	0.16
10061-01-5	cis-1,3-Dichloropropene	0.61	U	1.0	0.61
74-95-3	Dibromomethane	0.090	U	1.0	0.090
74-97-5	Bromochloromethane	0.14	U	1.0	0.14
75-71-8	Dichlorodifluoromethane	0.35	U	1.0	0.35
75-27-4	Bromodichloromethane	0.17	U	1.0	0.17
75-65-0	tert-Butyl alcohol	1.7	U	50	1.7
100-41-4	Ethylbenzene	0.11	U	1.0	0.11
87-68-3	Hexachlorobutadiene	0.83	U	1.0	0.83
108-20-3	Diisopropyl ether	0.17	U	10	0.17
98-82-8	Isopropylbenzene	0.090	U	1.0	0.090
1634-04-4	Methyl tert-butyl ether	0.070	U	1.0	0.070
75-09-2	Methylene Chloride	2.6	U	5.0	2.6
179601-23-1	m-Xylene & p-Xylene	0.080	U	2.0	0.080
91-20-3	Naphthalene	0.32	U	1.0	0.32
104-51-8	n-Butylbenzene	0.14	U	1.0	0.14
103-65-1	N-Propylbenzene	0.15	U	1.0	0.15
95-47-6	o-Xylene	0.090	U	1.0	0.090
135-98-8	sec-Butylbenzene	0.13	U	1.0	0.13
100-42-5	Styrene	0.10	U	1.0	0.10
994-05-8	Tert-amyl methyl ether	0.11	U	5.0	0.11
637-92-3	Ethyl tert-butyl ether	0.15	U	5.0	0.15
127-18-4	Tetrachloroethene	0.15	U	1.0	0.15
108-88-3	Toluene	0.14	U	1.0	0.14
156-60-5	trans-1,2-Dichloroethene	0.19	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	0.67	U	1.0	0.67
79-01-6	Trichloroethene	0.10	U	1.0	0.10
75-69-4	Trichlorofluoromethane	0.45	U	1.0	0.45
108-05-4	Vinyl acetate	0.19	U	2.0	0.19
75-01-4	Vinyl chloride	0.20	U	1.0	0.20
1330-20-7	Xylenes, Total	0.15	U	2.0	0.15
98-06-6	tert-Butylbenzene	0.14	U	1.0	0.14
106-93-4	1,2-Dibromoethane	0.12	U	1.0	0.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-337077/6

Matrix: Water Lab File ID: UXJ3110.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		69-124
460-00-4	4-Bromofluorobenzene (Surr)	93		69-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		61-138

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-337077/6

Matrix: Water Lab File ID: UXJ3110.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/19/2018 13:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 337077 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
	Tentatively Identified Compound		None		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-337077/6

Matrix: Water | Lab File ID: UXJ3110.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/19/2018 13:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 337077 | Units: ug/L

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
75-45-6	Chlorodifluoromethane TIC		1.0	U	

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: BFB615.D BFB Injection Date: 06/15/2018

Instrument ID: A3UX11 BFB Injection Time: 09:50

Analysis Batch No.: 331857

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	47.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	93.5	
175	5.0 - 9.0 % of mass 174	6.4	(6.9) 1
176	95.0 - 101.0 % of mass 174	90.5	(96.8) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-331857/2	UXJ2256A.D	06/15/2018	10:18
	STD8260 240-331857/3	UXJ2257A.D	06/15/2018	10:41
	STD8260 240-331857/4	UXJ2258A.D	06/15/2018	11:04
	STD8260 240-331857/5	UXJ2259A.D	06/15/2018	11:27
	STD8260 240-331857/6	UXJ2260A.D	06/15/2018	11:49
	STD8260 240-331857/7	UXJ2261A.D	06/15/2018	12:12
	ICV 240-331857/14	UXJ2262A.D	06/15/2018	12:35
	STD6 240-331857/8	UXJ2263A.D	06/15/2018	12:58
	STD5 240-331857/9	UXJ2264A.D	06/15/2018	13:20
	STD4 240-331857/10	UXJ2265A.D	06/15/2018	13:43
	STD3 240-331857/11	UXJ2266A.D	06/15/2018	14:06
	STD2 240-331857/12	UXJ2267A.D	06/15/2018	14:29
	STD1 240-331857/13	UXJ2268A.D	06/15/2018	14:51
	ICV 240-331857/15	UXJ2269A.D	06/15/2018	15:14

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-331857/7	UXJ2261A.D
Level 2	STD8260 240-331857/6	UXJ2260A.D
Level 3	STD8260 240-331857/5	UXJ2259A.D
Level 4	STD8260 240-331857/4	UXJ2258A.D
Level 5	STD8260 240-331857/3	UXJ2257A.D
Level 6	STD8260 240-331857/2	UXJ2256A.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2662 0.2570	0.2552	0.2786	0.2649	0.2660	Ave		0.2647			0.1000	3.1		20.0			
Chloromethane	0.2404 0.2452	0.2325	0.2488	0.2356	0.2395	Ave		0.2403			0.1000	2.5		20.0			
Vinyl chloride	0.2653 0.2407	0.2492	0.2586	0.2401	0.2457	Ave		0.2499			0.1000	4.0		20.0			
Butadiene	0.3429 0.2693	0.3026	0.3050	0.2871	0.2838	Ave		0.2985				8.5		20.0			
Bromomethane	0.1463 0.1414	0.1495	0.1545	0.1485	0.1440	Ave		0.1474			0.0500	3.1		20.0			
Chloroethane	0.1557 0.1364	0.1281	0.1468	0.1367	0.1393	Ave		0.1405			0.0500	6.8		20.0			
Dichlorofluoromethane	0.4502 0.3307	0.3725	0.3645	0.3510	0.3386	Ave		0.3679				11.7		20.0			
Trichlorofluoromethane	0.3388 0.3369	0.3478	0.3573	0.3444	0.3434	Ave		0.3448			0.1000	2.1		20.0			
Ethyl ether	0.2542 0.2460	0.2695	0.2615	0.2213	0.2517	Ave		0.2507				6.6		20.0			
Acrolein	0.0418 0.0364	0.0438	0.0358	0.0354	0.0354	Ave		0.0381				9.8		20.0			
1,1-Dichloroethene	0.2621 0.2239	0.2523	0.2515	0.2390	0.2324	Ave		0.2435			0.1000	5.9		20.0			
1,1,2-Trichlorotrifluoroethane	0.1576 0.1648	0.1738	0.1623	0.1589	0.1672	Ave		0.1641			0.0500	3.6		20.0			
Acetone	0.0650 0.0502	0.0655	0.0530	0.0578	0.0508	Ave		0.0570			0.0100	12.1		20.0			
Iodomethane	0.3816 0.3499	0.3723	0.3874	0.3694	0.3569	Ave		0.3696				3.9		20.0			
Carbon disulfide	0.5909 0.6182	0.6282	0.6675	0.6341	0.6123	Ave		0.6252			0.1000	4.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
3-Chloro-1-propene	0.2052 0.2069	0.2137	0.2144	0.2002	0.2145	Ave		0.2091				2.8		20.0			
Methyl acetate	0.1663 0.1595	0.1798	0.1690	0.1558	0.1623	Ave		0.1655			0.1000	5.1		20.0			
Methylene Chloride	0.3638 0.2480	0.3040	0.2969	0.2681	0.2580	Ave		0.2898			0.1000	14.6		20.0			
tert-Butyl alcohol	0.0154 0.0138	0.0162	0.0153	0.0141	0.0154	Ave		0.0150				6.1		20.0			
Acrylonitrile	0.0794 0.0763	0.0787	0.0814	0.0724	0.0781	Ave		0.0777				4.0		20.0			
Methyl tert-butyl ether	0.8945 0.8167	0.8607	0.8557	0.8055	0.8352	Ave		0.8447			0.1000	3.8		20.0			
trans-1,2-Dichloroethene	0.3433 0.3163	0.3450	0.3337	0.3083	0.3159	Ave		0.3271			0.1000	4.8		20.0			
Hexane	0.0720 0.0818	0.0746	0.0809	0.0774	0.0782	Ave		0.0775				4.8		20.0			
1,1-Dichloroethane	0.5607 0.5423	0.5746	0.5778	0.5377	0.5493	Ave		0.5571			0.2000	3.0		20.0			
Vinyl acetate	0.4652 0.4487	0.4701	0.4546	0.4407	0.4679	Ave		0.4579				2.6		20.0			
cis-1,2-Dichloroethene	0.4033 0.3488	0.3650	0.3682	0.3446	0.3550	Ave		0.3641			0.1000	5.8		20.0			
2,2-Dichloropropane	0.0764 0.0731	0.0812	0.0805	0.0841	0.0770	Ave		0.0787				5.0		20.0			
2-Butanone (MEK)	0.1044 0.0803	0.0945	0.0863	0.0801	0.0865	Ave		0.0887			0.0100	10.5		20.0			
Bromochloromethane	0.1700 0.1661	0.1759	0.1757	0.1606	0.1721	Ave		0.1701				3.5		20.0			
Tetrahydrofuran	0.0728 0.0586	0.0717	0.0656	0.0578	0.0583	Ave		0.0642				10.8		20.0			
Chloroform	0.5481 0.5168	0.5384	0.5375	0.5049	0.5217	Ave		0.5279			0.2000	3.1		20.0			
1,1,1-Trichloroethane	0.4639 0.4092	0.4342	0.4411	0.4232	0.4242	Ave		0.4326			0.1000	4.3		20.0			
Cyclohexane	0.4376 0.4145	0.4238	0.4366	0.4153	0.4253	Ave		0.4255			0.1000	2.3		20.0			
1,1-Dichloropropene	0.4717 0.4498	0.4557	0.4643	0.4383	0.4609	Ave		0.4568				2.6		20.0			
Carbon tetrachloride	0.4180 0.3913	0.3901	0.3968	0.3848	0.3960	Ave		0.3962			0.1000	2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0063 0.0060	0.0059	0.0060	0.0060	0.0063	Ave		0.0061				3.0		20.0			
1,2-Dichloroethane	0.4597 0.4145	0.4203	0.4315	0.4016	0.4247	Ave		0.4254			0.1000	4.6		20.0			
Benzene	1.3816 1.3071	1.3557	1.3309	1.2550	1.3000	Ave		1.3217			0.5000	3.4		20.0			
n-Heptane	0.0826 0.0803	0.0710	0.0813	0.0772	0.0793	Ave		0.0786				5.3		20.0			
Trichloroethene	0.3886 0.3559	0.3754	0.3678	0.3456	0.3681	Ave		0.3669			0.1500	4.1		20.0			
Methylcyclohexane	0.4457 0.4405	0.4340	0.4508	0.4320	0.4386	Ave		0.4403			0.1000	1.6		20.0			
1,2-Dichloropropane	0.3308 0.3068	0.3246	0.3277	0.3004	0.3094	Ave		0.3166			0.1000	4.0		20.0			
Dibromomethane	0.1827 0.1726	0.1761	0.1786	0.1762	0.1758	Ave		0.1770				1.9		20.0			
1,4-Dioxane	0.0014 0.0016	0.0012	0.0018	0.0019	0.0020	Ave		0.0017				17.9		20.0			
Bromodichloromethane	0.3602 0.3814	0.3529	0.3708	0.3651	0.3812	Ave		0.3686			0.1500	3.1		20.0			
2-Chloroethyl vinyl ether	0.1888 0.1833	0.1879	0.1940	0.1796	0.1876	Ave		0.1869				2.6		20.0			
cis-1,3-Dichloropropene	0.4734 0.5192	0.4811	0.5135	0.4923	0.5191	Ave		0.4998			0.1500	4.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.2154 0.2098	0.2423	0.2258	0.1935	0.2092	Ave		0.2160			0.0500	7.7		20.0			
Toluene	1.7086 1.6877	1.6785	1.7075	1.6226	1.6821	Ave		1.6812			0.4000	1.9		20.0			
trans-1,3-Dichloropropene	0.4816 0.5639	0.5147	0.5204	0.5274	0.5532	Ave		0.5268			0.1000	5.6		20.0			
Ethyl methacrylate	0.4662 0.4702	0.4634	0.4510	0.4509	0.4608	Ave		0.4604				1.7		20.0			
1,1,2-Trichloroethane	0.3216 0.2933	0.3093	0.3053	0.2982	0.3060	Ave		0.3056			0.1000	3.2		20.0			
Tetrachloroethene	0.3415 0.3222	0.3280	0.3275	0.3138	0.3190	Ave		0.3253			0.1500	2.9		20.0			
1,3-Dichloropropane	0.5585 0.5649	0.5569	0.5725	0.5521	0.5652	Ave		0.5617				1.3		20.0			
2-Hexanone	0.2056 0.1678	0.1719	0.1644	0.1534	0.1650	Ave		0.1713			0.0500	10.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	0.1995 0.3059	0.2244	0.2501	0.2584	0.2842	Ave		0.2538				15.2		20.0			
1,2-Dibromoethane	0.3011 0.2948	0.2864	0.3060	0.2844	0.2888	Ave		0.2936				2.9		20.0			
Chlorobenzene	1.0795 1.0352	1.0596	1.0655	1.0241	1.0456	Ave		1.0516			0.3000	1.9		20.0			
1,1,1,2-Tetrachloroethane	0.3397 0.3548	0.3533	0.3511	0.3406	0.3508	Ave		0.3484				1.9		20.0			
Ethylbenzene	0.5552 0.5495	0.5838	0.5706	0.5548	0.5577	Ave		0.5619				2.3		20.0			
m-Xylene & p-Xylene	0.6810 0.6655	0.7002	0.6759	0.6664	0.6804	Ave		0.6782				1.9		20.0			
o-Xylene	0.6356 0.6336	0.6411	0.6544	0.6374	0.6418	Ave		0.6406				1.2		20.0			
Styrene	1.1118 1.1208	1.1415	1.1170	1.1064	1.1416	Ave		1.1232			0.3000	1.3		20.0			
Bromoform	0.0568 0.1528	0.0779	0.0959	0.1070	0.1281	Qua	-0.067	0.1052	0.0012360		0.1000	9.5			1.0000		0.9900
Isopropylbenzene	1.5324 1.5073	1.5153	1.5380	1.4858	1.5111	Ave		1.5150			0.1000	1.2		20.0			
1,1,2,2-Tetrachloroethane	0.7158 0.6749	0.6998	0.6788	0.6474	0.6552	Ave		0.6786			0.3000	3.8		20.0			
Bromobenzene	0.8844 0.9022	0.9042	0.8837	0.8764	0.8800	Ave		0.8885				1.3		20.0			
1,2,3-Trichloropropane	0.2391 0.2345	0.2165	0.2350	0.2200	0.2241	Ave		0.2282				4.0		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1413	0.0397	0.0624	0.0720	0.1007	Ave		0.0832				47.1	*	20.0			
N-Propylbenzene	0.8222 0.8806	0.8787	0.8574	0.8497	0.8619	Ave		0.8584				2.5		20.0			
2-Chlorotoluene	0.7792 0.7638	0.7346	0.7531	0.7519	0.7375	Ave		0.7533				2.2		20.0			
1,3,5-Trimethylbenzene	2.4750 2.4479	2.4399	2.4526	2.3872	2.4174	Ave		2.4367				1.3		20.0			
4-Chlorotoluene	0.8394 0.8068	0.8085	0.8179	0.7865	0.7921	Ave		0.8085				2.3		20.0			
tert-Butylbenzene	2.1964 2.1077	2.0871	2.1222	2.0593	2.0812	Ave		2.1090				2.3		20.0			
1,2,4-Trimethylbenzene	2.5522 2.4789	2.5091	2.5133	2.4517	2.4353	Ave		2.4901				1.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	2.6197 2.7306	2.7054	2.7212	2.6504	2.7044	Ave		2.6886				1.6		20.0			
1,3-Dichlorobenzene	1.4841 1.3736	1.4278	1.3910	1.3497	1.3316	Ave		1.3930			0.6000	4.0		20.0			
4-Isopropyltoluene	2.3620 2.3909	2.3822	2.3523	2.3167	2.3288	Ave		2.3555				1.2		20.0			
1,4-Dichlorobenzene	1.4989 1.4100	1.4813	1.4294	1.3902	1.4053	Ave		1.4359			0.5000	3.1		20.0			
n-Butylbenzene	1.7552 1.8081	1.7597	1.8298	1.7625	1.7936	Ave		1.7848				1.7		20.0			
1,2-Dichlorobenzene	1.3992 1.2621	1.2848	1.2750	1.2544	1.2566	Ave		1.2887			0.4000	4.3		20.0			
1,2-Dibromo-3-Chloropropane	0.0660 0.1116	0.0746	0.0875	0.0867	0.0954	Ave		0.0870			0.0500	18.3		20.0			
1,2,4-Trichlorobenzene	0.7109 0.6822	0.6834	0.7005	0.6780	0.6640	Ave		0.6865			0.2000	2.4		20.0			
Hexachlorobutadiene	0.3555 0.3083	0.3770	0.3338	0.3256	0.3095	Ave		0.3350				8.1		20.0			
Naphthalene	1.7865 1.6210	1.7195	1.6331	1.5774	1.5942	Ave		1.6553				4.9		20.0			
1,2,3-Trichlorobenzene	0.6718 0.6159	0.6240	0.6558	0.6155	0.6264	Ave		0.6349				3.7		20.0			
Dibromofluoromethane (Surr)	0.2912 0.2746	0.2572	0.2794	0.2711	0.2832	Ave		0.2761				4.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3460 0.3470	0.3503	0.3590	0.3360	0.3569	Ave		0.3492				2.4		20.0			
Toluene-d8 (Surr)	1.4592 1.4661	1.4148	1.4671	1.4269	1.4788	Ave		1.4521				1.7		20.0			
4-Bromofluorobenzene (Surr)	0.4842 0.4365	0.4385	0.4519	0.4400	0.4496	Ave		0.4501				4.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-331857/7	UXJ2261A.D
Level 2	STD8260 240-331857/6	UXJ2260A.D
Level 3	STD8260 240-331857/5	UXJ2259A.D
Level 4	STD8260 240-331857/4	UXJ2258A.D
Level 5	STD8260 240-331857/3	UXJ2257A.D
Level 6	STD8260 240-331857/2	UXJ2256A.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	23677 1078636	46595	126019	252034	523081	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	21381 1028831	42447	112539	224167	470977	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	23601 1010240	45499	116969	228475	483019	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	30504 1130190	55255	137956	273195	557973	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	13015 593543	27304	69895	141310	283221	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	13851 572231	23387	66407	130021	273858	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	40047 1387992	68009	164881	333921	665828	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	30137 1413930	63506	161612	327635	675222	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	22614 1032516	49209	118288	210503	494874	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Ave	18569 762911	40010	80955	168285	348018	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	23310 939417	46070	113749	227370	456974	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	14017 691730	31725	73392	151173	328818	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	11569 420927	23907	47982	110010	199668	2.00 80.0	4.00	10.0	20.0	40.0
Iodomethane	FB	Ave	33942 1468349	67975	175223	351457	701644	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	52558 2594262	114704	301922	603249	1203975	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	18253 868474	39020	96965	190450	421682	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methyl acetate	FB	Ave	29581 1338827	65639	152875	296490	638387	2.00 80.0	4.00	10.0	20.0	40.0
Methylene Chloride	FB	Ave	32361 1040857	55512	134284	255053	507283	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butyl alcohol	FB	Ave	13695 577841	29584	69011	133762	302386	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	70626 3200367	143636	368028	688824	1535719	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	79563 3427371	157142	387031	766379	1642233	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	30535 1327309	62995	150932	293336	621040	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	6407 343112	13616	36596	73600	153811	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	49871 2275839	104917	261346	511589	1080087	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	41377 1883192	85829	205604	419299	920042	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	35870 1463588	66644	166552	327820	697924	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	6800 306941	14820	36427	80029	151388	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	18566 673929	34512	78072	152447	340307	2.00 80.0	4.00	10.0	20.0	40.0
Bromochloromethane	FB	Ave	15119 697187	32115	79481	152783	338292	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	12948 492182	26199	59372	109996	229269	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	48751 2168951	98299	243104	480389	1025738	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1-Trichloroethane	FB	Ave	41266 1717432	79281	199503	402679	833989	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	38924 1739376	77382	197489	395134	836286	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	41957 1887503	83203	209984	417026	906246	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	37177 1642106	71234	179451	366075	778579	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	CBNZ d5	Ave	12224 520085	22800	57325	119207	263333	25.0 1000	50.0	125	250	500
1,2-Dichloroethane	FB	Ave	40886 1739692	76748	195163	382110	835064	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	122893 5485502	247524	601959	1194062	2556033	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	7344 336798	12970	36756	73433	155915	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	34562 1493589	68537	166368	328819	723721	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	39641 1848547	79242	203901	411047	862351	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	29425 1287569	59272	148204	285769	608359	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	16249 724234	32158	80763	167671	345672	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Ave	2469 134716	4491	16424	36229	77253	20.0 800	40.0	100	200	400
Bromodichloromethane	FB	Ave	32036 1600674	64425	167733	347318	749534	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	33591 1538536	68606	175525	341760	737581	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	42104 2178932	87839	232273	468420	1020705	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	38320 1760538	88473	204295	368171	822832	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	133219 5886917	258868	657469	1286025	2792455	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	37546 1966806	79387	200375	417986	918330	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	36349 1640196	71469	173678	357385	764965	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	25071 1022999	47709	117553	236317	507965	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	26628 1123696	50587	126098	248716	529635	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	43546 1970603	85883	220463	437589	938213	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	32053 1170412	53036	126581	243243	547801	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	15558 1067144	34608	96318	204772	471720	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromoethane	CBNZ d5	Ave	23476 1028173	44176	117837	225446	479414	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	84168 3611013	163419	410269	811720	1735726	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	26484 1237727	54484	135178	269948	582290	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	43287 1916845	90039	219695	439702	925809	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	53098 2321180	107986	260269	528220	1129617	1.00 40.0	2.00	5.00	10.0	20.0
o-Xylene	CBNZ d5	Ave	49553 2210073	98869	251988	505159	1065410	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	86683 3909459	176046	430127	876959	1895129	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Qua	4425 533036	12010	36943	84775	212680	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	119482 5257468	233702	592232	1177666	2508581	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	25081 1050829	50091	120885	236029	509193	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	30986 1404887	64724	157383	319499	683934	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	8378 365167	15499	41845	80207	174177	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	+++++ 220052	2840	11114	26249	78290	+++++ 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	28807 1371131	62895	152705	309762	669915	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	27300 1189324	52578	134118	274118	573192	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	86719 3811625	174639	436795	870268	1878859	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	29409 1256238	57872	145659	286731	615622	1.00 40.0	2.00	5.00	10.0	20.0
tert-Butylbenzene	DCBd 4	Ave	76957 3281903	149392	377954	750748	1617567	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	89423 3860009	179598	447607	893793	1892723	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	91787 4251917	193643	484641	966240	2101929	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	52000 2138921	102197	247730	492048	1034941	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	82760 3722933	170515	418932	844593	1810001	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	52519 2195593	106026	254570	506800	1092239	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCBd 4	Ave	61499 2815394	125954	325884	642537	1394040	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	49026 1965262	91963	227081	457302	976621	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2312 173741	5339	15580	31624	74141	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	24909 1062279	48918	124753	247157	516035	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Ave	12455 480102	26986	59447	118711	240534	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	62596 2524168	123076	290852	575076	1239038	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	23537 959046	44667	116801	224377	486882	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	25903 1152343	46951	126375	257936	556913	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	30779 1456117	63956	162374	319665	701700	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	113771 5113815	218192	564910	1130924	2455015	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	37754 1522568	67622	174024	348736	746372	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 10:18 Calibration End Date: 06/15/2018 12:12 Calibration ID: 45557

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-331857/7	UXJ2261A.D
Level 2	STD8260 240-331857/6	UXJ2260A.D
Level 3	STD8260 240-331857/5	UXJ2259A.D
Level 4	STD8260 240-331857/4	UXJ2258A.D
Level 5	STD8260 240-331857/3	UXJ2257A.D
Level 6	STD8260 240-331857/2	UXJ2256A.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Bromoform	15.6						50					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 12:58 Calibration End Date: 06/15/2018 14:51 Calibration ID: 45560

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-331857/13	UXJ2268A.D
Level 2	STD2 240-331857/12	UXJ2267A.D
Level 3	STD3 240-331857/11	UXJ2266A.D
Level 4	STD4 240-331857/10	UXJ2265A.D
Level 5	STD5 240-331857/9	UXJ2264A.D
Level 6	STD6 240-331857/8	UXJ2263A.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0102 0.0186	0.0171	0.0137	0.0168	0.0181	Lin1	-0.086	0.0184				11.7			0.9960		0.9900
Diisopropyl ether	0.3037 0.3174	0.3027	0.3376	0.3116	0.3161	Ave		0.3149				4.0		20.0			
2-Chloro-1,3-butadiene	0.4924 0.5274	0.5243	0.5255	0.5135	0.5158	Ave		0.5165				2.5		20.0			
Ethyl tert-butyl ether	0.8926 0.9518	0.8844	0.9407	0.9363	0.9432	Ave		0.9249				3.1		20.0			
Ethyl acetate	0.2369 0.2257	0.2011	0.2202	0.2063	0.2191	Ave		0.2182				6.0		20.0			
Propionitrile	0.0211 0.0277	0.0215	0.0241	0.0246	0.0255	Ave		0.0241				10.3		20.0			
Methacrylonitrile	0.1381 0.1541	0.1326	0.1506	0.1398	0.1522	Ave		0.1446				6.1		20.0			
Tert-amyl methyl ether	0.9217 0.9556	0.9214	0.9672	0.9063	0.9466	Ave		0.9365				2.5		20.0			
n-Butanol	0.0047 0.0046	0.0041	0.0052	0.0048	0.0055	Ave		0.0048				9.8		20.0			
Ethyl acrylate	0.3185 0.3496	0.3309	0.3595	0.3140	0.3375	Ave		0.3350				5.2		20.0			
Methyl methacrylate	0.2061 0.2480	0.2312	0.2464	0.2244	0.2410	Ave		0.2328				6.8		20.0			
2-Nitropropane	0.0731 0.0734	0.0725	0.0783	0.0706	0.0736	Ave		0.0736				3.5		20.0			
n-Butyl acetate	0.4156 0.3897	0.3592	0.3760	0.3508	0.3800	Ave		0.3786				6.1		20.0			
1-Chlorohexane	0.4744 0.4481	0.4532	0.4551	0.4396	0.4452	Ave		0.4526				2.7		20.0			
Cyclohexanone	0.0168 0.0117	0.0145	0.0154	0.0135	0.0136	Ave		0.0142				12.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 12:58 Calibration End Date: 06/15/2018 14:51 Calibration ID: 45560

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1555 0.1960	0.1598	0.1840	0.1851	0.1926	Ave		0.1789				9.5		20.0			
1,2,3-Trimethylbenzene	2.5052 2.4718	2.3743	2.4606	2.4167	2.3941	Ave		2.4371				2.1		20.0			
Benzyl chloride	0.2848 0.3366	0.2910	0.2947	0.2906	0.3168	Ave		0.3024				6.6		20.0			
1,3,5-Trichlorobenzene	0.7658 0.7370	0.7806	0.7468	0.7435	0.7379	Ave		0.7519				2.3		20.0			
2-Methylnaphthalene	1.0541 0.9888	1.1163	1.1075	1.0494	1.1057	Ave		1.0703				4.6		20.0			
1-Chloro-1-fluoroethane TIC	+++++ 0.0052	+++++	0.0027	0.0051	0.0055	None											

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 12:58 Calibration End Date: 06/15/2018 14:51 Calibration ID: 45560

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-331857/13	UXJ2268A.D
Level 2	STD2 240-331857/12	UXJ2267A.D
Level 3	STD3 240-331857/11	UXJ2266A.D
Level 4	STD4 240-331857/10	UXJ2265A.D
Level 5	STD5 240-331857/9	UXJ2264A.D
Level 6	STD6 240-331857/8	UXJ2263A.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Lin1	9472 656641	30160	60229	151663	336554	10.0 400	20.0	50.0	100	200
Diisopropyl ether	FB	Ave	28219 1122264	53474	148656	281173	589251	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	45757 1864965	92615	231419	463335	961454	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl tert-butyl ether	FB	Ave	82955 3365352	156221	414246	844829	1758206	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl acetate	FB	Ave	44030 1596163	71054	193945	372273	816776	2.00 80.0	4.00	10.0	20.0	40.0
Propionitrile	FB	Ave	19651 981172	37977	106327	222005	475076	10.0 400	20.0	50.0	100	200
Methacrylonitrile	FB	Ave	128335 5447855	234236	663342	1260978	2836291	10.0 400	20.0	50.0	100	200
Tert-amyl methyl ether	FB	Ave	85655 3379004	162749	425881	817744	1764626	1.00 40.0	2.00	5.00	10.0	20.0
n-Butanol	CBNZ d5	Ave	9412 352178	15935	49172	90920	214978	25.0 1000	50.0	125	250	500
Ethyl acrylate	FB	Ave	29603 1235996	58456	158309	283355	629162	1.00 40.0	2.00	5.00	10.0	20.0
Methyl methacrylate	FB	Ave	38299 1753599	81659	217025	405010	898321	2.00 80.0	4.00	10.0	20.0	40.0
2-Nitropropane	FB	Ave	13590 519381	25611	68969	127412	274571	2.00 80.0	4.00	10.0	20.0	40.0
n-Butyl acetate	FB	Ave	38621 1377939	63447	165548	316569	708421	1.00 40.0	2.00	5.00	10.0	20.0
1-Chlorohexane	CBNZ d5	Ave	37931 1380853	69759	171682	336012	701004	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexanone	DCBd 4	Ave	6169 163863	10163	27093	47668	101025	10.0 400	20.0	50.0	100	200
Pentachloroethane	CBNZ d5	Ave	24867 1208148	49208	138835	283019	606640	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 12:58 Calibration End Date: 06/15/2018 14:51 Calibration ID: 45560

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	91910 3470506	166543	433830	853953	1776534	1.00 40.0	2.00	5.00	10.0	20.0
Benzyl chloride	DCBd 4	Ave	10450 472557	20412	51961	102679	235059	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	28096 1034812	54758	131672	262709	547577	1.00 40.0	2.00	5.00	10.0	20.0
2-Methylnaphthalene	DCBd 4	Ave	77348 2776526	156602	390509	741624	1640935	2.00 80.0	4.00	10.0	20.0	40.0
1-Chloro-1-fluoroethane TIC	FB	None	+++++ 18309	+++++	1194	4627	10254	+++++ 40.0	+++++	5.00	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
None = No Calib Curve

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 331857

SDG No.:

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/15/2018 12:58 Calibration End Date: 06/15/2018 14:51 Calibration ID: 45560

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-331857/13	UXJ2268A.D
Level 2	STD2 240-331857/12	UXJ2267A.D
Level 3	STD3 240-331857/11	UXJ2266A.D
Level 4	STD4 240-331857/10	UXJ2265A.D
Level 5	STD5 240-331857/9	UXJ2264A.D
Level 6	STD6 240-331857/8	UXJ2263A.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetonitrile	2.0						50					

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-331857/14 Calibration Date: 06/15/2018 12:35

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ2262A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2647	0.2819	0.1000	0.0107	0.0100	6.5	30.0
Chloromethane	Ave	0.2403	0.2421	0.1000	0.0101	0.0100	0.7	30.0
Vinyl chloride	Ave	0.2499	0.2547	0.1000	0.0102	0.0100	1.9	30.0
Butadiene	Ave	0.2985	0.2933		0.00983	0.0100	-1.7	30.0
Bromomethane	Ave	0.1474	0.1515	0.0500	0.0103	0.0100	2.7	30.0
Chloroethane	Ave	0.1405	0.1423	0.0500	0.0101	0.0100	1.3	30.0
Dichlorofluoromethane	Ave	0.3679	0.3797		0.0103	0.0100	3.2	30.0
Trichlorofluoromethane	Ave	0.3448	0.3758	0.1000	0.0109	0.0100	9.0	30.0
Ethyl ether	Ave	0.2507	0.2783		0.0111	0.0100	11.0	30.0
Acrolein	Ave	0.0381	0.0233		0.0306	0.0500	-38.9	50.0
1,1-Dichloroethene	Ave	0.2435	0.2746	0.1000	0.0113	0.0100	12.8	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1641	0.1794	0.0500	0.0109	0.0100	9.3	30.0
Acetone	Ave	0.0570	0.0640	0.0100	0.0224	0.0200	12.1	50.0
Iodomethane	Ave	0.3696	0.4285		0.0116	0.0100	15.9	30.0
Carbon disulfide	Ave	0.6252	0.7048	0.1000	0.0113	0.0100	12.7	30.0
3-Chloro-1-propene	Ave	0.2091	0.2267		0.0108	0.0100	8.4	30.0
Methyl acetate	Ave	0.1655	0.1611	0.1000	0.0195	0.0200	-2.6	30.0
Methylene Chloride	Ave	0.2898	0.2996	0.1000	0.0103	0.0100	3.4	50.0
tert-Butyl alcohol	Ave	0.0150	0.0154		0.102	0.100	2.5	50.0
Acrylonitrile	Ave	0.0777	0.0809		0.104	0.100	4.1	30.0
Methyl tert-butyl ether	Ave	0.8447	0.8831	0.1000	0.0105	0.0100	4.5	30.0
trans-1,2-Dichloroethene	Ave	0.3271	0.3559	0.1000	0.0109	0.0100	8.8	30.0
Hexane	Ave	0.0775	0.0865		0.0112	0.0100	11.7	30.0
1,1-Dichloroethane	Ave	0.5571	0.5937	0.2000	0.0107	0.0100	6.6	30.0
Vinyl acetate	Ave	0.4579	0.5896		0.0129	0.0100	28.8	50.0
cis-1,2-Dichloroethene	Ave	0.3641	0.3786	0.1000	0.0104	0.0100	4.0	30.0
2,2-Dichloropropane	Ave	0.0787	0.0901		0.0114	0.0100	14.4	30.0
2-Butanone (MEK)	Ave	0.0887	0.0913	0.0100	0.0206	0.0200	3.0	30.0
Bromochloromethane	Ave	0.1701	0.1806		0.0106	0.0100	6.2	30.0
Tetrahydrofuran	Ave	0.0642	0.0635		0.0198	0.0200	-1.0	30.0
Chloroform	Ave	0.5279	0.5663	0.2000	0.0107	0.0100	7.3	30.0
1,1,1-Trichloroethane	Ave	0.4326	0.4664	0.1000	0.0108	0.0100	7.8	30.0
Cyclohexane	Ave	0.4255	0.4576	0.1000	0.0108	0.0100	7.5	30.0
1,1-Dichloropropene	Ave	0.4568	0.4881		0.0107	0.0100	6.9	30.0
Carbon tetrachloride	Ave	0.3962	0.4201	0.1000	0.0106	0.0100	6.0	30.0
Isobutyl alcohol	Ave	0.0061	0.0061		0.249	0.250	-0.3	30.0
1,2-Dichloroethane	Ave	0.4254	0.4562	0.1000	0.0107	0.0100	7.2	30.0
Benzene	Ave	1.322	1.373	0.5000	0.0104	0.0100	3.9	30.0
n-Heptane	Ave	0.0786	0.0777		0.00988	0.0100	-1.2	30.0
Trichloroethene	Ave	0.3669	0.3867	0.1500	0.0105	0.0100	5.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-331857/14 Calibration Date: 06/15/2018 12:35

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ2262A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4403	0.4524	0.1000	0.0103	0.0100	2.8	30.0
1,2-Dichloropropane	Ave	0.3166	0.3410	0.1000	0.0108	0.0100	7.7	30.0
Dibromomethane	Ave	0.1770	0.1793		0.0101	0.0100	1.3	30.0
1,4-Dioxane	Ave	0.0017	0.0016		0.196	0.200	-1.8	50.0
Bromodichloromethane	Ave	0.3686	0.3934	0.1500	0.0107	0.0100	6.7	30.0
2-Chloroethyl vinyl ether	Ave	0.1869	0.2024		0.0108	0.0100	8.3	30.0
cis-1,3-Dichloropropene	Ave	0.4998	0.5550	0.1500	0.0111	0.0100	11.0	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2160	0.2244	0.0500	0.0208	0.0200	3.9	30.0
Toluene	Ave	1.681	1.742	0.4000	0.0104	0.0100	3.6	30.0
trans-1,3-Dichloropropene	Ave	0.5268	0.5421	0.1000	0.0103	0.0100	2.9	30.0
Ethyl methacrylate	Ave	0.4604	0.4680		0.0102	0.0100	1.6	30.0
1,1,2-Trichloroethane	Ave	0.3056	0.3298	0.1000	0.0108	0.0100	7.9	30.0
Tetrachloroethene	Ave	0.3253	0.3196	0.1500	0.00982	0.0100	-1.8	30.0
1,3-Dichloropropane	Ave	0.5617	0.5871		0.0105	0.0100	4.5	30.0
2-Hexanone	Ave	0.1713	0.1694	0.0500	0.0198	0.0200	-1.1	30.0
Chlorodibromomethane	Ave	0.2538	0.2817		0.0111	0.0100	11.0	30.0
1,2-Dibromoethane	Ave	0.2936	0.3057		0.0104	0.0100	4.1	30.0
Chlorobenzene	Ave	1.052	1.096	0.3000	0.0104	0.0100	4.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3484	0.3668		0.0105	0.0100	5.3	30.0
Ethylbenzene	Ave	0.5619	0.5742		0.0102	0.0100	2.2	30.0
m-Xylene & p-Xylene	Ave	0.6782	0.6986		0.0103	0.0100	3.0	30.0
o-Xylene	Ave	0.6406	0.6732		0.0105	0.0100	5.1	30.0
Styrene	Ave	1.123	1.174	0.3000	0.0104	0.0100	4.5	30.0
Bromoform	Qua		0.1168	0.1000	0.0105	0.0100	4.5	30.0
Isopropylbenzene	Ave	1.515	1.576	0.1000	0.0104	0.0100	4.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6786	0.6712	0.3000	0.00989	0.0100	-1.1	30.0
Bromobenzene	Ave	0.8885	0.8947		0.0101	0.0100	0.7	30.0
1,2,3-Trichloropropane	Ave	0.2282	0.2431		0.0107	0.0100	6.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.0832	0.0779		0.00935	0.0100	-6.5	30.0
N-Propylbenzene	Ave	0.8584	0.8674		0.0101	0.0100	1.0	30.0
2-Chlorotoluene	Ave	0.7533	0.7751		0.0103	0.0100	2.9	30.0
1,3,5-Trimethylbenzene	Ave	2.437	2.427		0.00996	0.0100	-0.4	30.0
4-Chlorotoluene	Ave	0.8085	0.8258		0.0102	0.0100	2.1	30.0
tert-Butylbenzene	Ave	2.109	2.100		0.00996	0.0100	-0.4	30.0
1,2,4-Trimethylbenzene	Ave	2.490	2.513		0.0101	0.0100	0.9	30.0
sec-Butylbenzene	Ave	2.689	2.703		0.0101	0.0100	0.5	30.0
1,3-Dichlorobenzene	Ave	1.393	1.363	0.6000	0.00978	0.0100	-2.2	30.0
4-Isopropyltoluene	Ave	2.356	2.359		0.0100	0.0100	0.1	30.0
1,4-Dichlorobenzene	Ave	1.436	1.443	0.5000	0.0101	0.0100	0.5	30.0
n-Butylbenzene	Ave	1.785	1.719		0.00963	0.0100	-3.7	30.0
1,2-Dichlorobenzene	Ave	1.289	1.313	0.4000	0.0102	0.0100	1.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-331857/14 Calibration Date: 06/15/2018 12:35

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ2262A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0870	0.1004	0.0500	0.0115	0.0100	15.5	50.0
1,2,4-Trichlorobenzene	Ave	0.6865	0.6539	0.2000	0.00953	0.0100	-4.7	50.0
Hexachlorobutadiene	Ave	0.3350	0.2865		0.00855	0.0100	-14.5	30.0
Naphthalene	Ave	1.655	1.575		0.00952	0.0100	-4.8	50.0
1,2,3-Trichlorobenzene	Ave	0.6349	0.6197		0.00976	0.0100	-2.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2761	0.2792		0.0101	0.0100	1.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3492	0.3542		0.0101	0.0100	1.4	30.0
Toluene-d8 (Surr)	Ave	1.452	1.450		0.00999	0.0100	-0.1	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4501	0.4297		0.00955	0.0100	-4.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-331857/15 Calibration Date: 06/15/2018 15:14

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ2269A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2761	0.2703		0.00979	0.0100	-2.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3492	0.3247		0.00930	0.0100	-7.0	30.0
Toluene-d8 (Surr)	Ave	1.452	1.388		0.00956	0.0100	-4.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4501	0.4063		0.00903	0.0100	-9.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-331857/15 Calibration Date: 06/15/2018 15:14

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 12:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 14:51

Lab File ID: UXJ2269A.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0137		0.0792	0.100	-20.8	30.0
Diisopropyl ether	Ave	0.3149	0.3198		0.0102	0.0100	1.6	30.0
2-Chloro-1,3-butadiene	Ave	0.5165	0.5040		0.00976	0.0100	-2.4	30.0
Ethyl tert-butyl ether	Ave	0.9249	0.9400		0.0102	0.0100	1.6	30.0
Ethyl acetate	Ave	0.2182	0.2019		0.0185	0.0200	-7.5	50.0
Propionitrile	Ave	0.0241	0.0265		0.110	0.100	10.1	30.0
Methacrylonitrile	Ave	0.1446	0.1411		0.0976	0.100	-2.4	30.0
Tert-amyl methyl ether	Ave	0.9365	0.9075		0.00969	0.0100	-3.1	30.0
n-Butanol	Ave	0.0048	0.0038		0.198	0.250	-20.7	30.0
Ethyl acrylate	Ave	0.3350	0.3196		0.00954	0.0100	-4.6	30.0
Methyl methacrylate	Ave	0.2328	0.2327		0.0200	0.0200	-0.0	30.0
2-Nitropropane	Ave	0.0736	0.0648		0.0176	0.0200	-11.9	30.0
n-Butyl acetate	Ave	0.3786	0.3540		0.00935	0.0100	-6.5	30.0
1-Chlorohexane	Ave	0.4526	0.4357		0.00963	0.0100	-3.7	30.0
Cyclohexanone	Ave	0.0142	0.0119		0.0836	0.100	-16.4	30.0
Pentachloroethane	Ave	0.1789	0.1670		0.0187	0.0200	-6.6	30.0
1,2,3-Trimethylbenzene	Ave	2.437	2.468		0.0101	0.0100	1.2	30.0
Benzyl chloride	Ave	0.3024	0.2637		0.00872	0.0100	-12.8	30.0
1,3,5-Trichlorobenzene	Ave	0.7519	0.7004		0.00931	0.0100	-6.9	30.0
2-Methylnaphthalene	Ave	1.070	0.8341		0.0156	0.0200	-22.1	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: BFB719.D BFB Injection Date: 07/19/2018

Instrument ID: A3UX11 BFB Injection Time: 10:12

Analysis Batch No.: 337077

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.3	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	81.3	
175	5.0 - 9.0 % of mass 174	7.1	(8.7) 1
176	95.0 - 101.0 % of mass 174	78.6	(96.6) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-337077/2	UXJ3104.D	07/19/2018	10:48
	LCS 240-337077/4	UXJ3105.D	07/19/2018	11:11
	CCV 240-337077/3	UXJ3106.D	07/19/2018	11:33
	MB 240-337077/6	UXJ3110.D	07/19/2018	13:05
TB-071018	240-98352-1	UXJ3112.D	07/19/2018	13:50
DMW-5S-071018	240-98352-2	UXJ3113.D	07/19/2018	14:14
DMW-5S-071018 MS	240-98352-2 MS	UXJ3114.D	07/19/2018	14:37
DMW-5S-071018 MSD	240-98352-2 MSD	UXJ3115.D	07/19/2018	15:00
DMW-5I-071018	240-98352-3	UXJ3116.D	07/19/2018	15:23
MSA-MW-38S-071018	240-98352-4	UXJ3117.D	07/19/2018	15:46
MSA-MW-18S-071018	240-98320-1	UXJ3118.D	07/19/2018	16:09

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-337077/2 Calibration Date: 07/19/2018 10:48

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ3104.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2647	0.2565	0.1000	0.00969	0.0100	-3.1	20.0
Chloromethane	Ave	0.2403	0.2281	0.1000	0.00949	0.0100	-5.1	20.0
Vinyl chloride	Ave	0.2499	0.2330	0.1000	0.00932	0.0100	-6.8	20.0
Butadiene	Ave	0.2985	0.2474		0.00829	0.0100	-17.1	20.0
Bromomethane	Ave	0.1474	0.1512	0.0500	0.0103	0.0100	2.5	20.0
Chloroethane	Ave	0.1405	0.1419	0.0500	0.0101	0.0100	1.0	20.0
Dichlorofluoromethane	Ave	0.3679	0.3226		0.00877	0.0100	-12.3	20.0
Trichlorofluoromethane	Ave	0.3448	0.3370	0.1000	0.00978	0.0100	-2.2	20.0
Ethyl ether	Ave	0.2507	0.2436		0.00972	0.0100	-2.8	20.0
Acrolein	Ave	0.0381	0.0373		0.0489	0.0500	-2.2	50.0
1,1-Dichloroethene	Ave	0.2435	0.2202	0.1000	0.00904	0.0100	-9.6	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1641	0.1398	0.0500	0.00852	0.0100	-14.8	20.0
Acetone	Ave	0.0570	0.0594	0.0100	0.0208	0.0200	4.1	50.0
Iodomethane	Ave	0.3696	0.3471		0.00939	0.0100	-6.1	20.0
Carbon disulfide	Ave	0.6252	0.6235	0.1000	0.00997	0.0100	-0.3	20.0
3-Chloro-1-propene	Ave	0.2091	0.2235		0.0107	0.0100	6.9	20.0
Methyl acetate	Ave	0.1655	0.1642	0.1000	0.0198	0.0200	-0.8	20.0
Methylene Chloride	Ave	0.2898	0.2953	0.1000	0.0102	0.0100	1.9	50.0
tert-Butyl alcohol	Ave	0.0150	0.0120		0.0801	0.100	-19.9	50.0
Acrylonitrile	Ave	0.0777	0.0827		0.106	0.100	6.5	20.0
Methyl tert-butyl ether	Ave	0.8447	0.8047	0.1000	0.00953	0.0100	-4.7	20.0
trans-1,2-Dichloroethene	Ave	0.3271	0.3060	0.1000	0.00936	0.0100	-6.4	20.0
Hexane	Ave	0.0775	0.0858		0.0111	0.0100	10.7	20.0
1,1-Dichloroethane	Ave	0.5571	0.5787	0.2000	0.0104	0.0100	3.9	20.0
Vinyl acetate	Ave	0.4579	0.3970		0.00867	0.0100	-13.3	50.0
cis-1,2-Dichloroethene	Ave	0.3641	0.3496	0.1000	0.00960	0.0100	-4.0	20.0
2,2-Dichloropropane	Ave	0.0787	0.0680		0.00864	0.0100	-13.6	20.0
2-Butanone (MEK)	Ave	0.0887	0.0934	0.0100	0.0211	0.0200	5.3	20.0
Bromochloromethane	Ave	0.1701	0.1498		0.00881	0.0100	-11.9	20.0
Tetrahydrofuran	Ave	0.0642	0.0586		0.0183	0.0200	-8.7	20.0
Chloroform	Ave	0.5279	0.5268	0.2000	0.00998	0.0100	-0.2	20.0
1,1,1-Trichloroethane	Ave	0.4326	0.3918	0.1000	0.00906	0.0100	-9.4	20.0
Cyclohexane	Ave	0.4255	0.4324	0.1000	0.0102	0.0100	1.6	20.0
1,1-Dichloropropene	Ave	0.4568	0.4444		0.00973	0.0100	-2.7	20.0
Carbon tetrachloride	Ave	0.3962	0.3338	0.1000	0.00843	0.0100	-15.7	20.0
Isobutyl alcohol	Ave	0.0061	0.0057		0.233	0.250	-6.9	20.0
1,2-Dichloroethane	Ave	0.4254	0.4226	0.1000	0.00993	0.0100	-0.7	20.0
Benzene	Ave	1.322	1.311	0.5000	0.00992	0.0100	-0.8	20.0
n-Heptane	Ave	0.0786	0.0861		0.0110	0.0100	9.6	20.0
Trichloroethene	Ave	0.3669	0.3175	0.1500	0.00865	0.0100	-13.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-337077/2 Calibration Date: 07/19/2018 10:48

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ3104.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4403	0.4718	0.1000	0.0107	0.0100	7.2	20.0
1,2-Dichloropropane	Ave	0.3166	0.3218	0.1000	0.0102	0.0100	1.7	20.0
Dibromomethane	Ave	0.1770	0.1664		0.00940	0.0100	-6.0	20.0
1,4-Dioxane	Ave	0.0017	0.0016		0.190	0.200	-4.8	50.0
Bromodichloromethane	Ave	0.3686	0.3846	0.1500	0.0104	0.0100	4.4	20.0
2-Chloroethyl vinyl ether	Ave	0.1869	0.1779		0.0190	0.0200	-4.8	20.0
cis-1,3-Dichloropropene	Ave	0.4998	0.4807	0.1500	0.00962	0.0100	-3.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2160	0.1941	0.0500	0.0180	0.0200	-10.1	20.0
Toluene	Ave	1.681	1.735	0.4000	0.0103	0.0100	3.2	20.0
trans-1,3-Dichloropropene	Ave	0.5268	0.4924	0.1000	0.00935	0.0100	-6.5	20.0
Ethyl methacrylate	Ave	0.4604	0.3704		0.00804	0.0100	-19.6	20.0
1,1,2-Trichloroethane	Ave	0.3056	0.2989	0.1000	0.00978	0.0100	-2.2	20.0
Tetrachloroethene	Ave	0.3253	0.2876	0.1500	0.00884	0.0100	-11.6	20.0
1,3-Dichloropropane	Ave	0.5617	0.5605		0.00998	0.0100	-0.2	20.0
2-Hexanone	Ave	0.1713	0.1546	0.0500	0.0180	0.0200	-9.8	20.0
Chlorodibromomethane	Ave	0.2538	0.3055		0.0120	0.0100	20.4*	20.0
1,2-Dibromoethane	Ave	0.2936	0.2773		0.00945	0.0100	-5.5	20.0
Chlorobenzene	Ave	1.052	1.016	0.3000	0.00967	0.0100	-3.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3484	0.3195		0.00917	0.0100	-8.3	20.0
Ethylbenzene	Ave	0.5619	0.5602		0.00997	0.0100	-0.3	20.0
m-Xylene & p-Xylene	Ave	0.6782	0.6851		0.0101	0.0100	1.0	20.0
o-Xylene	Ave	0.6406	0.6456		0.0101	0.0100	0.8	20.0
Styrene	Ave	1.123	1.132	0.3000	0.0101	0.0100	0.8	20.0
Bromoform	Qua		0.1579	0.1000	0.0135	0.0100	35.1*	20.0
Isopropylbenzene	Ave	1.515	1.605	0.1000	0.0106	0.0100	5.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6786	0.6611	0.3000	0.00974	0.0100	-2.6	20.0
Bromobenzene	Ave	0.8885	0.8205		0.00924	0.0100	-7.6	20.0
1,2,3-Trichloropropane	Ave	0.2282	0.2124		0.00931	0.0100	-6.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.0832	0.1585		0.0190	0.0100	90.4*	20.0
N-Propylbenzene	Ave	0.8584	0.9099		0.0106	0.0100	6.0	20.0
2-Chlorotoluene	Ave	0.7533	0.7875		0.0105	0.0100	4.5	20.0
1,3,5-Trimethylbenzene	Ave	2.437	2.691		0.0110	0.0100	10.4	20.0
4-Chlorotoluene	Ave	0.8085	0.8027		0.00993	0.0100	-0.7	20.0
tert-Butylbenzene	Ave	2.109	2.293		0.0109	0.0100	8.7	20.0
1,2,4-Trimethylbenzene	Ave	2.490	2.734		0.0110	0.0100	9.8	20.0
sec-Butylbenzene	Ave	2.689	3.061		0.0114	0.0100	13.9	20.0
1,3-Dichlorobenzene	Ave	1.393	1.422	0.6000	0.0102	0.0100	2.1	20.0
4-Isopropyltoluene	Ave	2.356	2.626		0.0111	0.0100	11.5	20.0
1,4-Dichlorobenzene	Ave	1.436	1.456	0.5000	0.0101	0.0100	1.4	20.0
n-Butylbenzene	Ave	1.785	2.166		0.0121	0.0100	21.4*	20.0
1,2-Dichlorobenzene	Ave	1.289	1.280	0.4000	0.00993	0.0100	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-337077/2 Calibration Date: 07/19/2018 10:48

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 10:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 12:12

Lab File ID: UXJ3104.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.0870	0.0854	0.0500	0.00982	0.0100	-1.8	50.0
1,2,4-Trichlorobenzene	Ave	0.6865	0.6540	0.2000	0.00953	0.0100	-4.7	50.0
Hexachlorobutadiene	Ave	0.3350	0.2599		0.00776	0.0100	-22.4*	20.0
Naphthalene	Ave	1.655	1.469		0.00887	0.0100	-11.3	50.0
1,2,3-Trichlorobenzene	Ave	0.6349	0.6040		0.00951	0.0100	-4.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2761	0.2599		0.00941	0.0100	-5.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3492	0.3285		0.00941	0.0100	-5.9	20.0
Toluene-d8 (Surr)	Ave	1.452	1.373		0.00945	0.0100	-5.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4501	0.4186		0.00930	0.0100	-7.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-337077/3 Calibration Date: 07/19/2018 11:33

Instrument ID: A3UX11 Calib Start Date: 06/15/2018 12:58

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/15/2018 14:51

Lab File ID: UXJ3106.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Lin1		0.0215		0.121	0.100	21.5*	20.0
Diisopropyl ether	Ave	0.3149	0.2885		0.00916	0.0100	-8.4	20.0
2-Chloro-1,3-butadiene	Ave	0.5165	0.4886		0.00946	0.0100	-5.4	20.0
Ethyl tert-butyl ether	Ave	0.9249	0.8997		0.00973	0.0100	-2.7	20.0
Ethyl acetate	Ave	0.2182	0.2043		0.0187	0.0200	-6.4	50.0
Propionitrile	Ave	0.0241	0.0282		0.117	0.100	17.1	20.0
Methacrylonitrile	Ave	0.1446	0.1495		0.103	0.100	3.4	20.0
Tert-amyl methyl ether	Ave	0.9365	0.8131		0.00868	0.0100	-13.2	20.0
n-Butanol	Ave	0.0048	0.0033		0.171	0.250	-31.5*	20.0
Ethyl acrylate	Ave	0.3350	0.2867		0.00856	0.0100	-14.4	20.0
Methyl methacrylate	Ave	0.2328	0.2150		0.0185	0.0200	-7.6	20.0
2-Nitropropane	Ave	0.0736	0.0448		0.0122	0.0200	-39.1*	20.0
n-Butyl acetate	Ave	0.3786	0.2848		0.00752	0.0100	-24.8*	20.0
1-Chlorohexane	Ave	0.4526	0.4542		0.0100	0.0100	0.4	20.0
Cyclohexanone	Ave	0.0142	0.0140		0.0980	0.100	-2.0	20.0
Pentachloroethane	Ave	0.1789	0.1534		0.0172	0.0200	-14.2	20.0
1,2,3-Trimethylbenzene	Ave	2.437	2.570		0.0105	0.0100	5.5	20.0
Benzyl chloride	Ave	0.3024	0.1562		0.00516	0.0100	-48.4*	20.0
1,3,5-Trichlorobenzene	Ave	0.7519	0.7662		0.0102	0.0100	1.9	20.0
2-Methylnaphthalene	Ave	1.070	0.8856		0.0165	0.0200	-17.3	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: BFB5679.D BFB Injection Date: 07/06/2018

Instrument ID: A3UX16 BFB Injection Time: 17:27

Analysis Batch No.: 335057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.1	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	76.3	
175	5.0 - 9.0 % of mass 174	4.6	(6.0) 1
176	95.0 - 101.0 % of mass 174	73.1	(95.8) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-335057/8	UXM12451.D	07/06/2018	18:36
	STD8260 240-335057/9	UXM12452.D	07/06/2018	19:00
	STD8260 240-335057/10	UXM12453.D	07/06/2018	19:23
	ICIS 240-335057/11	UXM12454.D	07/06/2018	19:47
	STD8260 240-335057/12	UXM12455.D	07/06/2018	20:10
	STD8260 240-335057/13	UXM12456.D	07/06/2018	20:34
	STD8260 240-335057/14	UXM12457.D	07/06/2018	20:58
	ICV 240-335057/15	UXM12458.D	07/06/2018	21:52
	STDA9 240-335057/18	UXM12461.D	07/06/2018	23:04
	STDA9 240-335057/19	UXM12462.D	07/06/2018	23:27
	STDA9 240-335057/20	UXM12463.D	07/06/2018	23:51
	STDA9 240-335057/21	UXM12464.D	07/07/2018	00:15
	STDA9 240-335057/22	UXM12465.D	07/07/2018	00:39
	STDA9 240-335057/23	UXM12466.D	07/07/2018	01:02
	ICV 240-335057/24	UXM12467.D	07/07/2018	01:26

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2797 0.3392	0.4061 0.3654	0.3756	0.3179	0.3666	Ave		0.3501			0.1000	11.9		20.0			
Chloromethane	0.3187 0.3271	0.4104 0.3139	0.3578	0.3352	0.3279	Ave		0.3416			0.1000	9.8		20.0			
Vinyl chloride	0.2635 0.3356	0.3370 0.3439	0.3722	0.3266	0.3465	Ave		0.3322			0.1000	10.1		20.0			
Butadiene	0.2384 0.3014	0.3602 0.3279	0.3486	0.2837	0.3267	Ave		0.3124				13.4		20.0			
Bromomethane	0.1436 0.2234	0.2168 0.2273	0.2465	0.2197	0.2287	Ave		0.2151			0.0500	15.3		20.0			
Chloroethane	0.1980 0.2236	0.2481 0.2246	0.2427	0.2156	0.2249	Ave		0.2254			0.0500	7.4		20.0			
Dichlorofluoromethane	0.3785 0.4793	0.5405 0.4949	0.5329	0.4692	0.4894	Ave		0.4835				11.0		20.0			
Trichlorofluoromethane	0.3079 0.3754	0.4145 0.4015	0.4241	0.3568	0.3961	Ave		0.3823			0.1000	10.4		20.0			
Ethyl ether	0.2171 0.2408	0.2605 0.2398	0.2266	0.2378	0.2392	Ave		0.2374				5.7		20.0			
Acrolein	0.0541 0.0562	0.0567 0.0568	0.0575	0.0581	0.0585	Ave		0.0568				2.5		20.0			
1,1-Dichloroethene	0.1628 0.2453	0.2592 0.2441	0.2308	0.2280	0.2356	Ave		0.2294			0.1000	13.6		20.0			
Acetone	+++++ 0.0296	0.0409 0.0267	0.0303	0.0299	0.0302	Ave		0.0313			0.0100	15.7		20.0			
1,1,2-Trichlorotrifluoroethane	0.1370 0.1667	0.1744 0.1615	0.1574	0.1531	0.1565	Ave		0.1581			0.0500	7.4		20.0			
Iodomethane	0.3170 0.3865	0.3839 0.3820	0.3690	0.3692	0.3784	Ave		0.3694				6.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.5548 0.5608	0.6734 0.6823	0.6057	0.5035	0.6205	Ave		0.6001			0.1000	10.9		20.0			
3-Chloro-1-propene	0.4399 0.4327	0.4666 0.4311	0.3923	0.4209	0.4297	Ave		0.4305				5.1		20.0			
Methyl acetate	0.2667 0.2478	0.2566 0.2493	0.2451	0.2423	0.2484	Ave		0.2509			0.1000	3.3		20.0			
Methylene Chloride	+++++ 0.2866	0.3791 0.2839	0.2782	0.2805	0.2835	Ave		0.2986			0.1000	13.2		20.0			
tert-Butyl alcohol	0.0275 0.0307	0.0282 0.0244	0.0341	0.0339	0.0335	Ave		0.0303				12.4		20.0			
Acrylonitrile	0.1249 0.1249	0.1219 0.1260	0.1202	0.1211	0.1257	Ave		0.1235				1.9		20.0			
trans-1,2-Dichloroethene	0.2837 0.2932	0.2790 0.2972	0.2813	0.2837	0.2882	Ave		0.2866			0.1000	2.3		20.0			
Methyl tert-butyl ether	0.8932 0.9449	0.9372 0.9592	0.9086	0.9174	0.9377	Ave		0.9283			0.1000	2.5		20.0			
Hexane	+++++ 0.2367	0.3685 0.2323	0.2249	0.2119	0.2207	Lin1	0.1129	0.2265				8.8			0.9980		0.9900
1,1-Dichloroethane	0.4983 0.4973	0.5194 0.4959	0.4717	0.4783	0.4817	Ave		0.4918			0.2000	3.3		20.0			
Vinyl acetate	0.4488 0.5114	0.4942 0.5142	0.4729	0.4736	0.4994	Ave		0.4878				4.9		20.0			
cis-1,2-Dichloroethene	0.3015 0.3271	0.3159 0.3273	0.3118	0.3165	0.3194	Ave		0.3171			0.1000	2.8		20.0			
2,2-Dichloropropane	0.0631 0.0736	0.0744 0.0796	0.0728	0.0722	0.0724	Ave		0.0726				6.7		20.0			
2-Butanone (MEK)	0.0502 0.0417	0.0406 0.0417	0.0418	0.0412	0.0431	Ave		0.0429			0.0100	7.7		20.0			
Bromochloromethane	0.1280 0.1438	0.1457 0.1438	0.1390	0.1416	0.1427	Ave		0.1407				4.2		20.0			
Tetrahydrofuran	+++++ 0.0928	0.1322 0.0928	0.0954	0.0926	0.0943	Ave		0.1000				15.8		20.0			
Chloroform	0.4775 0.4907	0.5034 0.4899	0.4749	0.4789	0.4844	Ave		0.4857			0.2000	2.0		20.0			
1,1,1-Trichloroethane	0.3313 0.4116	0.3775 0.4109	0.3805	0.3911	0.3971	Ave		0.3857			0.1000	7.1		20.0			
Cyclohexane	0.3394 0.3698	0.4113 0.3609	0.3478	0.3400	0.3469	Ave		0.3594			0.1000	7.1		20.0			
1,1-Dichloropropene	0.3861 0.4008	0.4019 0.4013	0.3871	0.3868	0.3892	Ave		0.3933				1.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.2539 0.3199	0.3056 0.3216	0.2888	0.2936	0.3030	Ave		0.2981			0.1000	7.7		20.0			
Isobutyl alcohol	0.0116 0.0098	0.0123 0.0089	0.0102	0.0100	0.0102	Ave		0.0104				11.1		20.0			
Benzene	1.1468 1.2193	1.1989 1.2182	1.1620	1.1740	1.1894	Ave		1.1869			0.5000	2.3		20.0			
1,2-Dichloroethane	0.4446 0.4294	0.4207 0.4255	0.4129	0.4228	0.4209	Ave		0.4252			0.1000	2.3		20.0			
n-Heptane	+++++ 0.1245	1.0187 0.1132	0.1703	0.1372	0.1225	Lin1	0.8918	0.1021				17.0			0.9950		0.9900
Trichloroethene	0.2947 0.3003	0.3271 0.2985	0.2891	0.2914	0.2895	Ave		0.2987			0.1500	4.4		20.0			
Methylcyclohexane	+++++ 0.3142	0.4815 0.3063	0.2981	0.2906	0.2965	Lin1	0.1483	0.3014			0.1000	7.1			0.9990		0.9900
1,2-Dichloropropane	0.2563 0.2770	0.2670 0.2734	0.2674	0.2681	0.2729	Ave		0.2689			0.1000	2.5		20.0			
Dibromomethane	0.1593 0.1775	0.1601 0.1767	0.1707	0.1710	0.1766	Ave		0.1703				4.5		20.0			
1,4-Dioxane	+++++ 0.0034	0.0018 0.0034	0.0029	0.0026	0.0035	Lin1	-0.043	0.0034				13.6			0.9940		0.9900
Bromodichloromethane	0.3245 0.3780	0.3400 0.3863	0.3480	0.3600	0.3736	Ave		0.3586			0.1500	6.2		20.0			
2-Chloroethyl vinyl ether	0.1709 0.1976	0.1716 0.1994	0.1814	0.1863	0.1959	Ave		0.1861				6.5		20.0			
cis-1,3-Dichloropropene	0.3694 0.4777	0.4071 0.4809	0.4351	0.4476	0.4725	Ave		0.4415			0.1500	9.4		20.0			
4-Methyl-2-pentanone (MIBK)	0.2905 0.2956	0.2776 0.2950	0.2921	0.2894	0.2994	Ave		0.2914			0.0500	2.4		20.0			
Toluene	1.6113 1.5620	1.5718 1.5574	1.5027	1.4934	1.5415	Ave		1.5486			0.4000	2.6		20.0			
trans-1,3-Dichloropropene	0.4153 0.5585	0.4705 0.5604	0.4935	0.5149	0.5448	Ave		0.5083			0.1000	10.4		20.0			
Ethyl methacrylate	0.4660 0.5350	0.4680 0.5380	0.5016	0.5139	0.5377	Ave		0.5086				6.2		20.0			
1,1,2-Trichloroethane	0.3076 0.3164	0.3056 0.3152	0.2978	0.3087	0.3178	Ave		0.3099			0.1000	2.3		20.0			
Tetrachloroethene	0.2516 0.2328	0.2597 0.2323	0.2245	0.2188	0.2227	Ave		0.2346			0.1500	6.6		20.0			
1,3-Dichloropropane	0.5459 0.5884	0.5639 0.5936	0.5701	0.5756	0.5888	Ave		0.5752				2.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2442 0.2559	0.2328 0.2555	0.2501	0.2534	0.2631	Ave		0.2507			0.0500	3.9		20.0			
Chlorodibromomethane	0.2443 0.3156	0.2459 0.3187	0.2770	0.2936	0.3107	Ave		0.2865				11.1		20.0			
1,2-Dibromoethane	0.2852 0.3289	0.3100 0.3259	0.3113	0.3173	0.3282	Ave		0.3152				4.9		20.0			
Chlorobenzene	1.0087 0.9572	0.9650 0.9471	0.9328	0.9256	0.9479	Ave		0.9549			0.3000	2.9		20.0			
1,1,1,2-Tetrachloroethane	0.2910 0.3184	0.2927 0.3186	0.2946	0.3041	0.3159	Ave		0.3050				4.1		20.0			
Ethylbenzene	0.4790 0.4998	0.4952 0.4936	0.4823	0.4755	0.4880	Ave		0.4876				1.9		20.0			
m-Xylene & p-Xylene	0.6181 0.6088	0.6085 0.6095	0.5826	0.5902	0.6067	Ave		0.6035				2.1		20.0			
o-Xylene	0.5835 0.6107	0.6010 0.6058	0.5865	0.5852	0.6032	Ave		0.5966				1.9		20.0			
Styrene	1.0096 1.1098	1.0313 1.1001	1.0307	1.0580	1.0889	Ave		1.0612			0.3000	3.7		20.0			
Bromoform	+++++ 0.1966	0.1495 0.2017	0.1669	0.1785	0.1947	Ave		0.1813			0.1000	11.2		20.0			
Isopropylbenzene	1.4229 1.3377	1.4807 1.3103	1.3008	1.3032	1.3219	Ave		1.3539			0.1000	5.2		20.0			
1,1,2,2-Tetrachloroethane	0.8208 0.9053	0.7955 0.9151	0.8710	0.8767	0.9058	Ave		0.8700			0.3000	5.3		20.0			
Bromobenzene	0.6933 0.7600	0.7800 0.7539	0.7225	0.7207	0.7458	Ave		0.7395				3.9		20.0			
1,2,3-Trichloropropane	0.2974 0.3011	0.2825 0.3014	0.2815	0.2863	0.3024	Ave		0.2932				3.2		20.0			
trans-1,4-Dichloro-2-butene	0.2232 0.3030	0.2536 0.3070	0.2674	0.2771	0.2976	Ave		0.2756				11.0		20.0			
N-Propylbenzene	0.6802 0.6995	0.7466 0.6880	0.6537	0.6705	0.6916	Ave		0.6900				4.2		20.0			
2-Chlorotoluene	0.7098 0.6657	0.6831 0.6588	0.6469	0.6542	0.6635	Ave		0.6689				3.2		20.0			
1,3,5-Trimethylbenzene	2.1884 2.1623	2.2479 2.0838	2.0535	2.0794	2.1279	Ave		2.1347				3.2		20.0			
4-Chlorotoluene	0.7218 0.7130	0.7866 0.7014	0.6997	0.6826	0.7041	Ave		0.7156				4.7		20.0			
tert-Butylbenzene	2.1686 1.9285	2.2556 1.8251	1.7000	1.8545	1.8938	Ave		1.9466				10.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.5771 2.3023	2.4567 2.2247	2.2107	2.2128	2.2449	Ave		2.3185				6.2		20.0			
sec-Butylbenzene	2.6441 2.3146	2.9284 2.1320	2.2058	2.2090	2.2442	Ave		2.3826				12.3		20.0			
1,3-Dichlorobenzene	1.4359 1.2503	1.4618 1.2249	1.2199	1.2292	1.2375	Ave		1.2942			0.6000	8.2		20.0			
4-Isopropyltoluene	2.1150 1.9763	2.3932 1.7862	1.9012	1.9047	1.9493	Ave		2.0037				9.9		20.0			
1,4-Dichlorobenzene	1.4506 1.3070	1.4239 1.2801	1.2731	1.2703	1.2872	Ave		1.3275			0.5000	5.8		20.0			
n-Butylbenzene	2.2249 1.7023	2.4073 1.4911	1.6763	1.6490	1.6756	Ave		1.8324				18.6		20.0			
1,2-Dichlorobenzene	1.3101 1.2536	1.3623 1.2121	1.2181	1.2143	1.2388	Ave		1.2585			0.4000	4.5		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1877	0.1364 0.1885	0.1619	0.1698	0.1844	Ave		0.1714			0.0500	11.8		20.0			
1,2,4-Trichlorobenzene	0.8660 0.5840	0.8629 0.5478	0.5875	0.5710	0.5764	Lin1	0.2042	0.5630			0.2000	11.5			0.9990		0.9900
Hexachlorobutadiene	+++++ 0.1879	0.6410 0.1511	0.2419	0.2088	0.1988	Ave		0.2716				67.5	*	20.0			
Naphthalene	2.6712 2.3767	2.8074 2.3406	2.2782	2.2138	2.3566	Ave		2.4349				9.0		20.0			
1,2,3-Trichlorobenzene	0.7434 0.5297	0.8163 0.5101	0.5384	0.5156	0.5366	Lin1	0.1744	0.5187				15.2			0.9990		0.9900
Dibromofluoromethane (Surr)	0.2071 0.2543	0.2506 0.2434	0.2424	0.2491	0.2433	Ave		0.2415				6.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3528 0.3720	0.3598 0.3487	0.3513	0.3473	0.3493	Ave		0.3545				2.5		20.0			
Toluene-d8 (Surr)	1.2192 1.3391	1.3411 1.3055	1.2909	1.3026	1.3118	Ave		1.3015				3.1		20.0			
4-Bromofluorobenzene (Surr)	0.4604 0.4611	0.5042 0.4441	0.4455	0.4494	0.4607	Ave		0.4608				4.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	7697 1203566	22126 1732715	209900	366421	857328	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	8772 1160621	22361 1488189	199980	386337	766814	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	7252 1190716	18362 1630860	208008	376446	810225	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	6561 1069622	19625 1554694	194830	327026	764145	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	3951 792661	11810 1077838	137726	253228	534792	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	5450 793574	13516 1064867	135650	248454	525987	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	10418 1700912	29447 2346794	297811	540771	1144543	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	8474 1332006	22581 1903678	237022	411276	926403	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5974 854584	14190 1136864	126641	274020	559367	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	7449 997903	15433 1345573	160693	334650	684283	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	4481 870515	14124 1157517	128956	262807	550912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Ave	+++++ 209972	4452 252978	33899	68823	141381	+++++ 120	2.00 160	20.0	40.0	80.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	3770 591393	9503 766009	87972	176496	365912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Iodomethane	FB	Ave	8725 1371666	20914 1811097	206184	425496	885057	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	15268 1990078	36689 3235247	338480	580304	1451114	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	12107 1535506	25419 2044286	219257	485079	1004899	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	14680 1758927	27959 2364078	273994	558419	1161974	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 1017113	20653 1346342	155453	323314	662989	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	7572 1088818	15390 1155145	190736	390688	783635	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	34385 4432411	66421 5975911	671778	1395710	2938569	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	7807 1040502	15199 1409329	157216	326948	673918	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	24584 3353137	51061 4548019	507738	1057366	2192958	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Lin1	+++++ 839935	20075 1101448	125659	244259	516214	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	13713 1764546	28297 2351515	263621	551244	1126495	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	12351 1814839	26925 2438123	264296	545805	1167845	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	8298 1160689	17208 1552068	174245	364827	746939	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	1738 261323	4051 377441	40669	83271	169231	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	2762 296095	4424 395287	46756	95083	201522	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	3523 510380	7938 681995	77669	163199	333816	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	+++++ 658882	14407 879606	106650	213412	441088	+++++ 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	13141 1741172	27425 2323099	265407	551939	1132932	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9119 1460404	20565 1948577	212615	450811	928612	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	9341 1312165	22408 1711065	194343	391871	811349	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	10626 1422413	21894 1902963	216321	445806	910315	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	6988 1135294	16648 1525111	161376	338350	708684	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	7980 867290	16791 1058340	142693	286828	593922	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	31561 4326655	65315 5776167	649373	1353122	2781532	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	12236 1523583	22918 2017504	230750	487288	984252	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 441703	55498 536842	95183	158123	286571	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	8111 1065446	17820 1415332	161564	335872	677130	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Lin1	+++++ 1114950	26231 1452454	166599	334969	693449	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	7053 982929	14547 1296475	149450	309050	638292	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	4384 629835	8723 837775	95409	197061	412925	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	+++++ 243920	1945 318410	32782	60344	165164	+++++ 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	8931 1341341	18526 1831820	194467	414882	873763	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	9405 1402099	18693 1891415	202749	429382	916432	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	10168 1695194	22180 2280344	243162	515932	1105113	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	15991 2097677	30248 2797784	326480	667156	1400596	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	35552 4495747	67934 6009222	678668	1396007	2908979	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	9163 1607425	20334 2162351	222909	481283	1028086	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	10281 1539885	20229 2075923	226540	480415	1014574	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	6787 910600	13207 1216109	134483	288610	599763	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	5552 670148	11225 896494	101380	204540	420156	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	12044 1693458	24373 2290244	257484	538097	1111033	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	10777 1472941	20122 1971425	225889	473814	992952	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	5390 908433	10629 1229629	125094	274457	586355	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	6293 946605	13397 1257475	140605	296569	619238	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	22256 2754961	41709 3654297	421296	865277	1788702	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	6421 916435	12650 1229451	133071	284259	596034	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	10568 1438416	21405 1904587	217821	444464	920946	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	13637 1752312	26298 2351874	263123	551717	1144912	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	12875 1757808	25977 2337453	264893	547076	1138254	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	22276 3194215	44576 4244664	465498	989037	2054742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	+++++ 565737	6462 778365	75381	166870	367485	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	31394 3850163	63998 5055752	587486	1218247	2494562	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9192 1259728	16956 1686508	194321	402301	836855	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7764 1057435	16626 1389441	161208	330686	689027	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	3330 418896	6022 555554	62813	131351	279413	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	2500 421626	5405 565728	59660	127167	274987	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	7617 973288	15913 1268037	145853	307693	639022	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7949 926296	14559 1214173	144322	300172	613056	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	24507 3008635	47912 3840329	458148	954179	1966052	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	8083 992037	16765 1292643	156100	313219	650568	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	24285 2683363	48077 3363570	379293	850972	1749771	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	28860 3203438	52362 4100107	493225	1015397	2074105	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	29610 3220603	62416 3929173	492141	1013627	2073485	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	16080 1739752	31157 2257363	272181	564048	1143335	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	23685 2749918	51009 3291972	424176	874021	1800985	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	16245 1818536	30349 2359259	284036	582912	1189311	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	24916 2368633	51310 2748065	374001	756658	1548146	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14671 1744260	29036 2233768	271765	557217	1144552	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 261154	2907 347430	36111	77931	170338	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Lin1	9698 812603	18391 1009554	131079	262015	532517	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	+++++ 261462	13662 278484	53967	95798	183651	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	29914 3307029	59838 4313698	508297	1015831	2177351	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Lin1	8325 736975	17399 940105	120133	236603	495742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	5701 902478	13651 1154296	135472	287057	568968	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	9710 1320001	19603 1653488	196330	400288	816974	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	26900 3854217	57964 5037174	583042	1217624	2475529	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	10159 1327235	21794 1713339	201214	420090	869391	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 18:36 Calibration End Date: 07/06/2018 20:58 Calibration ID: 45857

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-335057/14	UXM12457.D
Level 2	STD8260 240-335057/13	UXM12456.D
Level 3	STD8260 240-335057/12	UXM12455.D
Level 4	ICIS 240-335057/11	UXM12454.D
Level 5	STD8260 240-335057/10	UXM12453.D
Level 6	STD8260 240-335057/9	UXM12452.D
Level 7	STD8260 240-335057/8	UXM12451.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Hexane	+++++	12.8						50				
n-Heptane	+++++	24.3						50				
Methylcyclohexane	+++++	10.5						50				
1,4-Dioxane	+++++	16.8						50				
1,2,4-Trichlorobenzene	-18.7						50					
1,2,3-Trichlorobenzene	-23.9						50					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0306 0.0382	0.0261	0.0386	0.0374	0.0371	Ave		0.0347				14.8		20.0			
Diisopropyl ether	0.2479 0.2826	0.2687	0.2720	0.2767	0.2692	Ave		0.2695				4.4		20.0			
2-Chloro-1,3-butadiene	0.4040 0.4749	0.4803	0.4493	0.4375	0.4645	Ave		0.4517				6.3		20.0			
Ethyl tert-butyl ether	0.8931 0.9626	0.9798	0.9248	0.9341	0.9086	Ave		0.9338				3.5		20.0			
Ethyl acetate	0.3108 0.2989	0.2987	0.2962	0.2919	0.2835	Ave		0.2967				3.0		20.0			
Propionitrile	0.0407 0.0487	0.0466	0.0484	0.0476	0.0469	Ave		0.0465				6.3		20.0			
Methacrylonitrile	0.1955 0.2062	0.2106	0.2022	0.1970	0.1962	Ave		0.2013				3.1		20.0			
Tert-amyl methyl ether	0.8806 0.9750	0.9782	0.9415	0.9459	0.9199	Ave		0.9402				3.9		20.0			
n-Butanol	0.0072 0.0095	0.0082	0.0086	0.0087	0.0094	Ave		0.0086				9.7		20.0			
Ethyl acrylate	0.3525 0.4189	0.3335	0.3917	0.3956	0.3938	Ave		0.3810				8.3		20.0			
Methyl methacrylate	0.2443 0.2957	0.2566	0.2846	0.2817	0.2774	Ave		0.2734				7.0		20.0			
2-Nitropropane	0.0705 0.0976	0.0772	0.0795	0.0829	0.0887	Ave		0.0827				11.4		20.0			
n-Butyl acetate	0.3803 0.4643	0.3977	0.4213	0.4390	0.4329	Ave		0.4226				7.1		20.0			
1-Chlorohexane	0.3965 0.3669	0.4202	0.3502	0.3345	0.3645	Ave		0.3721				8.4		20.0			
Cyclohexanone	+++++ 0.0287	0.0310	0.0286	0.0278	0.0296	Ave		0.0291				4.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.1127 0.1848	0.1242	0.1274	0.1474	0.1674	Ave		0.1440				19.3		20.0			
1,2,3-Trimethylbenzene	2.3354 2.4479	2.5786	2.3582	2.3857	2.4127	Ave		2.4198				3.6		20.0			
Benzyl chloride	0.1681 0.3819	0.2686	0.2701	0.3007	0.3450	Lin1	-0.129	0.3577				17.3			0.9910		0.9900
1,3,5-Trichlorobenzene	+++++ 0.6065	0.9588	0.6665	0.6450	0.6702	Ave		0.7094				20.0		20.0			
2-Methylnaphthalene	+++++ 0.8141	1.6402	0.9562	0.9113	0.9821	Lin1	1.7068	0.8581				9.2			0.9930		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	8313 1741057	13603	214900	416890	854873	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	6741 1288858	13992	151462	308499	620210	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	10986 2165746	25013	250180	487761	1070126	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	24287 4390281	51029	514983	1041511	2093258	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	16902 2726526	31110	329866	650924	1306439	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	11072 2222643	24246	269584	530484	1080743	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	53166 9403328	109681	1126144	2196471	4520437	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	23947 4446839	50942	524288	1054626	2119184	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	4894 1078535	10686	119075	242005	540752	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	9585 1910511	17367	218099	441100	907210	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	13289 2696815	26730	316901	628151	1278010	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	3833 890174	8041	88550	184858	408814	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	FB	Ave	10341 2117408	20710	234587	489514	997266	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	8850 1340662	16832	159394	299155	665507	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	DCBd 4	Ave	+++++ 518138	6189	63086	122890	264510	+++++ 800	10.0	100	200	400
Pentachloroethane	CBNZ d5	Ave	5030 1350341	9954	115994	263680	611262	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	25938 4426013	51512	519456	1053475	2157827	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Lin1	1867 690527	5366	59491	132793	308572	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	+++++ 1096550	19154	146811	284821	599393	+++++ 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Lin1	+++++ 2944018	65531	421280	804834	1756702	+++++ 160	2.00	20.0	40.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335057

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2018 23:04 Calibration End Date: 07/07/2018 01:02 Calibration ID: 45861

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-335057/23	UXM12466.D
Level 2	STDA9 240-335057/22	UXM12465.D
Level 3	STDA9 240-335057/21	UXM12464.D
Level 4	STDA9 240-335057/20	UXM12463.D
Level 5	STDA9 240-335057/19	UXM12462.D
Level 6	STDA9 240-335057/18	UXM12461.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Benzyl chloride	19.2						50					
2-Methylnaphthalene	+++++	-8.3						50				

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.3075	0.1000	0.0176	0.0200	-12.2	30.0
Chloromethane	Ave	0.3416	0.3364	0.1000	0.0197	0.0200	-1.5	30.0
Vinyl chloride	Ave	0.3322	0.3628	0.1000	0.0218	0.0200	9.2	30.0
Butadiene	Ave	0.3124	0.2886		0.0185	0.0200	-7.6	30.0
Bromomethane	Ave	0.2151	0.2402	0.0500	0.0223	0.0200	11.7	30.0
Chloroethane	Ave	0.2254	0.2415	0.0500	0.0214	0.0200	7.2	30.0
Dichlorofluoromethane	Ave	0.4835	0.5637		0.0233	0.0200	16.6	30.0
Trichlorofluoromethane	Ave	0.3823	0.4218	0.1000	0.0221	0.0200	10.3	30.0
Ethyl ether	Ave	0.2374	0.2830		0.0238	0.0200	19.2	30.0
Acrolein	Ave	0.0568	0.0355		0.0625	0.100	-37.5	50.0
1,1-Dichloroethene	Ave	0.2294	0.2811	0.1000	0.0245	0.0200	22.5	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1886	0.0500	0.0239	0.0200	19.3	30.0
Acetone	Ave	0.0313	0.0332	0.0100	0.0425	0.0400	6.3	50.0
Iodomethane	Ave	0.3694	0.4475		0.0242	0.0200	21.1	30.0
Carbon disulfide	Ave	0.6001	0.6656	0.1000	0.0222	0.0200	10.9	30.0
3-Chloro-1-propene	Ave	0.4305	0.4861		0.0226	0.0200	12.9	30.0
Methyl acetate	Ave	0.2509	0.2661	0.1000	0.0424	0.0400	6.1	30.0
Methylene Chloride	Ave	0.2986	0.3205	0.1000	0.0215	0.0200	7.3	50.0
tert-Butyl alcohol	Ave	0.0303	0.0349		0.230	0.200	15.1	50.0
Acrylonitrile	Ave	0.1235	0.1365		0.221	0.200	10.5	30.0
Methyl tert-butyl ether	Ave	0.9283	1.074	0.1000	0.0231	0.0200	15.7	30.0
trans-1,2-Dichloroethene	Ave	0.2866	0.3416	0.1000	0.0238	0.0200	19.2	30.0
Hexane	Lin1		0.2500		0.0216	0.0200	7.9	30.0
1,1-Dichloroethane	Ave	0.4918	0.5499	0.2000	0.0224	0.0200	11.8	30.0
Vinyl acetate	Ave	0.4878	0.6271		0.0257	0.0200	28.6	50.0
2,2-Dichloropropane	Ave	0.0726	0.0750		0.0207	0.0200	3.4	30.0
2-Butanone (MEK)	Ave	0.0429	0.0486	0.0100	0.0453	0.0400	13.3	30.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3699	0.1000	0.0233	0.0200	16.6	30.0
Bromochloromethane	Ave	0.1407	0.1646		0.0234	0.0200	17.0	30.0
Tetrahydrofuran	Ave	0.1000	0.1060		0.0424	0.0400	6.0	30.0
Chloroform	Ave	0.4857	0.5539	0.2000	0.0228	0.0200	14.0	30.0
1,1,1-Trichloroethane	Ave	0.3857	0.4572	0.1000	0.0237	0.0200	18.5	30.0
Cyclohexane	Ave	0.3594	0.3936	0.1000	0.0219	0.0200	9.5	30.0
1,1-Dichloropropene	Ave	0.3933	0.4369		0.0222	0.0200	11.1	30.0
Carbon tetrachloride	Ave	0.2981	0.3487	0.1000	0.0234	0.0200	17.0	30.0
Isobutyl alcohol	Ave	0.0104	0.0109		0.524	0.500	4.8	30.0
1,2-Dichloroethane	Ave	0.4252	0.4827	0.1000	0.0227	0.0200	13.5	30.0
Benzene	Ave	1.187	1.339	0.5000	0.0226	0.0200	12.8	30.0
n-Heptane	Lin1		0.1447		0.0196	0.0200	-1.9	30.0
Trichloroethene	Ave	0.2987	0.3311	0.1500	0.0222	0.0200	10.9	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.3144	0.1000	0.0204	0.0200	1.8	30.0
1,2-Dichloropropane	Ave	0.2689	0.3134	0.1000	0.0233	0.0200	16.6	30.0
1,4-Dioxane	Lin1		0.0036		0.436	0.400	9.0	50.0
Dibromomethane	Ave	0.1703	0.1911		0.0224	0.0200	12.2	30.0
Bromodichloromethane	Ave	0.3586	0.4152	0.1500	0.0232	0.0200	15.8	30.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.2132		0.0229	0.0200	14.5	30.0
cis-1,3-Dichloropropene	Ave	0.4415	0.5327	0.1500	0.0241	0.0200	20.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.3395	0.0500	0.0466	0.0400	16.5	30.0
Toluene	Ave	1.549	1.754	0.4000	0.0227	0.0200	13.3	30.0
trans-1,3-Dichloropropene	Ave	0.5083	0.5869	0.1000	0.0231	0.0200	15.5	30.0
Ethyl methacrylate	Ave	0.5086	0.5914		0.0233	0.0200	16.3	30.0
1,1,2-Trichloroethane	Ave	0.3099	0.3670	0.1000	0.0237	0.0200	18.4	30.0
1,3-Dichloropropane	Ave	0.5752	0.6587		0.0229	0.0200	14.5	30.0
Tetrachloroethene	Ave	0.2346	0.2529	0.1500	0.0216	0.0200	7.8	30.0
2-Hexanone	Ave	0.2507	0.2913	0.0500	0.0465	0.0400	16.2	30.0
Chlorodibromomethane	Ave	0.2865	0.3382		0.0236	0.0200	18.0	30.0
1,2-Dibromoethane	Ave	0.3152	0.3705		0.0235	0.0200	17.5	30.0
Chlorobenzene	Ave	0.9549	1.075	0.3000	0.0225	0.0200	12.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.3491		0.0229	0.0200	14.4	30.0
Ethylbenzene	Ave	0.4876	0.5502		0.0226	0.0200	12.8	30.0
m-Xylene & p-Xylene	Ave	0.6035	0.6898		0.0229	0.0200	14.3	30.0
o-Xylene	Ave	0.5966	0.6825		0.0229	0.0200	14.4	30.0
Styrene	Ave	1.061	1.200	0.3000	0.0226	0.0200	13.1	30.0
Bromoform	Ave	0.1813	0.2098	0.1000	0.0231	0.0200	15.7	30.0
Isopropylbenzene	Ave	1.354	1.500	0.1000	0.0222	0.0200	10.8	30.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	1.003	0.3000	0.0231	0.0200	15.3	30.0
Bromobenzene	Ave	0.7395	0.8252		0.0223	0.0200	11.6	30.0
1,2,3-Trichloropropane	Ave	0.2932	0.3440		0.0235	0.0200	17.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.3267		0.0237	0.0200	18.6	30.0
N-Propylbenzene	Ave	0.6900	0.7460		0.0216	0.0200	8.1	30.0
2-Chlorotoluene	Ave	0.6689	0.7344		0.0220	0.0200	9.8	30.0
1,3,5-Trimethylbenzene	Ave	2.135	2.280		0.0214	0.0200	6.8	30.0
4-Chlorotoluene	Ave	0.7156	0.7791		0.0218	0.0200	8.9	30.0
tert-Butylbenzene	Ave	1.947	2.049		0.0210	0.0200	5.2	30.0
1,2,4-Trimethylbenzene	Ave	2.318	2.446		0.0211	0.0200	5.5	30.0
sec-Butylbenzene	Ave	2.383	2.372		0.0199	0.0200	-0.4	30.0
1,3-Dichlorobenzene	Ave	1.294	1.360	0.6000	0.0210	0.0200	5.1	30.0
4-Isopropyltoluene	Ave	2.004	2.063		0.0206	0.0200	3.0	30.0
1,4-Dichlorobenzene	Ave	1.327	1.422	0.5000	0.0214	0.0200	7.1	30.0
n-Butylbenzene	Ave	1.832	1.677		0.0183	0.0200	-8.5	30.0
1,2-Dichlorobenzene	Ave	1.258	1.378	0.4000	0.0219	0.0200	9.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335057/15 Calibration Date: 07/06/2018 21:52

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12458.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1986	0.0500	0.0232	0.0200	15.8	50.0
1,2,4-Trichlorobenzene	Lin1		0.5768	0.2000	0.0201	0.0200	0.6	50.0
Hexachlorobutadiene	Ave	0.2716	0.1877		0.0138	0.0200	-30.9*	30.0
Naphthalene	Ave	2.435	2.431		0.0200	0.0200	-0.2	50.0
1,2,3-Trichlorobenzene	Lin1		0.5234		0.0198	0.0200	-0.8	30.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2290		0.0190	0.0200	-5.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.3259		0.0184	0.0200	-8.1	30.0
Toluene-d8 (Surr)	Ave	1.301	1.285		0.0197	0.0200	-1.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4681		0.0203	0.0200	1.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335057/24 Calibration Date: 07/07/2018 01:26

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12467.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2415	0.2010		0.0166	0.0200	-16.8	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2855		0.0161	0.0200	-19.4	30.0
Toluene-d8 (Surr)	Ave	1.301	1.126		0.0173	0.0200	-13.5	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4103		0.0178	0.0200	-11.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335057/24 Calibration Date: 07/07/2018 01:26

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12467.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0381		0.220	0.200	9.8	30.0
Diisopropyl ether	Ave	0.2695	0.2774		0.0206	0.0200	2.9	30.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4426		0.0196	0.0200	-2.0	30.0
Ethyl tert-butyl ether	Ave	0.9338	0.9252		0.0198	0.0200	-0.9	30.0
Ethyl acetate	Ave	0.2967	0.2976		0.0401	0.0400	0.3	50.0
Propionitrile	Ave	0.0465	0.0487		0.210	0.200	4.8	30.0
Methacrylonitrile	Ave	0.2013	0.2043		0.203	0.200	1.5	30.0
Tert-amyl methyl ether	Ave	0.9402	0.9395		0.0200	0.0200	-0.0	30.0
n-Butanol	Ave	0.0086	0.0085		0.497	0.500	-0.6	30.0
Ethyl acrylate	Ave	0.3810	0.4046		0.0212	0.0200	6.2	30.0
Methyl methacrylate	Ave	0.2734	0.2901		0.0424	0.0400	6.1	30.0
2-Nitropropane	Ave	0.0827	0.0849		0.0410	0.0400	2.6	30.0
n-Butyl acetate	Ave	0.4226	0.4604		0.0218	0.0200	9.0	30.0
1-Chlorohexane	Ave	0.3721	0.3338		0.0179	0.0200	-10.3	30.0
Cyclohexanone	Ave	0.0291	0.0296		0.203	0.200	1.5	30.0
Pentachloroethane	Ave	0.1440	0.1056		0.0293	0.0400	-26.7	30.0
1,2,3-Trimethylbenzene	Ave	2.420	2.380		0.0197	0.0200	-1.6	30.0
Benzyl chloride	Lin1		0.2667		0.0153	0.0200	-23.6	30.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.6087		0.0172	0.0200	-14.2	30.0
2-Methylnaphthalene	Lin1		0.7613		0.0335	0.0400	-16.3	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: BFB5686.D BFB Injection Date: 07/12/2018

Instrument ID: A3UX16 BFB Injection Time: 09:00

Analysis Batch No.: 335864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.9	
75	30.0 - 60.0 % of mass 95	51.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.7	(1.0) 1
174	50.0 - 120.00 % of mass 95	71.8	
175	5.0 - 9.0 % of mass 174	5.6	(7.8) 1
176	95.0 - 101.0 % of mass 174	69.9	(97.3) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-335864/4	UXM12591.D	07/12/2018	09:25
	LCS 240-335864/5	UXM12592.D	07/12/2018	10:01
	CCV 240-335864/6	UXM12593.D	07/12/2018	10:24
	MB 240-335864/9	UXM12596.D	07/12/2018	11:35
TB-070218	240-98038-1	UXM12612.D	07/12/2018	18:19
DMW-16D-070218	240-98038-2	UXM12613.D	07/12/2018	18:42
DMW-16I-070218	240-98038-3	UXM12614.D	07/12/2018	19:06
DMW-16S-070218	240-98038-4	UXM12615.D	07/12/2018	19:30
MSA-MW-53S-070218	240-98038-5	UXM12616.D	07/12/2018	19:54
MSA-MW-53I-070218	240-98038-6	UXM12617.D	07/12/2018	20:17

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.2767	0.1000	0.0158	0.0200	-21.0*	20.0
Chloromethane	Ave	0.3416	0.3274	0.1000	0.0192	0.0200	-4.2	20.0
Vinyl chloride	Ave	0.3322	0.3543	0.1000	0.0213	0.0200	6.7	20.0
Butadiene	Ave	0.3124	0.2974		0.0190	0.0200	-4.8	20.0
Bromomethane	Ave	0.2151	0.2302	0.0500	0.0214	0.0200	7.0	20.0
Chloroethane	Ave	0.2254	0.2302	0.0500	0.0204	0.0200	2.1	20.0
Dichlorofluoromethane	Ave	0.4835	0.5070		0.0210	0.0200	4.8	20.0
Trichlorofluoromethane	Ave	0.3823	0.3673	0.1000	0.0192	0.0200	-3.9	20.0
Ethyl ether	Ave	0.2374	0.2441		0.0206	0.0200	2.8	20.0
Acrolein	Ave	0.0568	0.0634		0.111	0.100	11.5	50.0
1,1-Dichloroethene	Ave	0.2294	0.2452	0.1000	0.0214	0.0200	6.9	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1502	0.0500	0.0190	0.0200	-5.0	20.0
Acetone	Ave	0.0313	0.0313	0.0100	0.0401	0.0400	0.3	50.0
Iodomethane	Ave	0.3694	0.3895		0.0211	0.0200	5.4	20.0
Carbon disulfide	Ave	0.6001	0.5776	0.1000	0.0192	0.0200	-3.8	20.0
3-Chloro-1-propene	Ave	0.4305	0.4287		0.0199	0.0200	-0.4	20.0
Methyl acetate	Ave	0.2509	0.2541	0.1000	0.0405	0.0400	1.3	20.0
Methylene Chloride	Ave	0.2986	0.2915	0.1000	0.0195	0.0200	-2.4	50.0
tert-Butyl alcohol	Ave	0.0303	0.0344		0.227	0.200	13.3	50.0
Acrylonitrile	Ave	0.1235	0.1272		0.206	0.200	3.0	20.0
Methyl tert-butyl ether	Ave	0.9283	0.9213	0.1000	0.0198	0.0200	-0.8	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.2959	0.1000	0.0206	0.0200	3.2	20.0
Hexane	Lin1		0.2016		0.0173	0.0200	-13.5	20.0
1,1-Dichloroethane	Ave	0.4918	0.4941	0.2000	0.0201	0.0200	0.5	20.0
Vinyl acetate	Ave	0.4878	0.5094		0.0209	0.0200	4.4	50.0
2,2-Dichloropropane	Ave	0.0726	0.0693		0.0191	0.0200	-4.5	20.0
2-Butanone (MEK)	Ave	0.0429	0.0435	0.0100	0.0405	0.0400	1.3	20.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3228	0.1000	0.0204	0.0200	1.8	20.0
Bromochloromethane	Ave	0.1407	0.1433		0.0204	0.0200	1.8	20.0
Tetrahydrofuran	Ave	0.1000	0.0946		0.0378	0.0400	-5.4	20.0
Chloroform	Ave	0.4857	0.4825	0.2000	0.0199	0.0200	-0.6	20.0
1,1,1-Trichloroethane	Ave	0.3857	0.3910	0.1000	0.0203	0.0200	1.4	20.0
Cyclohexane	Ave	0.3594	0.3352	0.1000	0.0186	0.0200	-6.8	20.0
1,1-Dichloropropene	Ave	0.3933	0.3932		0.0200	0.0200	-0.0	20.0
Carbon tetrachloride	Ave	0.2981	0.3029	0.1000	0.0203	0.0200	1.6	20.0
Isobutyl alcohol	Ave	0.0104	0.0104		0.501	0.500	0.2	20.0
1,2-Dichloroethane	Ave	0.4252	0.4198	0.1000	0.0197	0.0200	-1.3	20.0
Benzene	Ave	1.187	1.199	0.5000	0.0202	0.0200	1.0	20.0
n-Heptane	Lin1		0.1161		0.0140	0.0200	-30.0*	20.0
Trichloroethene	Ave	0.2987	0.2893	0.1500	0.0194	0.0200	-3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.2652	0.1000	0.0171	0.0200	-14.5	20.0
1,2-Dichloropropane	Ave	0.2689	0.2713	0.1000	0.0202	0.0200	0.9	20.0
1,4-Dioxane	Lin1		0.0035		0.431	0.400	7.7	50.0
Dibromomethane	Ave	0.1703	0.1755		0.0206	0.0200	3.1	20.0
Bromodichloromethane	Ave	0.3586	0.3626	0.1500	0.0202	0.0200	1.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.1879		0.0404	0.0400	0.9	20.0
cis-1,3-Dichloropropene	Ave	0.4415	0.4389	0.1500	0.0199	0.0200	-0.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.3020	0.0500	0.0415	0.0400	3.6	20.0
Toluene	Ave	1.549	1.493	0.4000	0.0193	0.0200	-3.6	20.0
trans-1,3-Dichloropropene	Ave	0.5083	0.4996	0.1000	0.0197	0.0200	-1.7	20.0
Ethyl methacrylate	Ave	0.5086	0.5043		0.0198	0.0200	-0.8	20.0
1,1,2-Trichloroethane	Ave	0.3099	0.3037	0.1000	0.0196	0.0200	-2.0	20.0
Tetrachloroethene	Ave	0.2346	0.2178	0.1500	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5752	0.5735		0.0199	0.0200	-0.3	20.0
2-Hexanone	Ave	0.2507	0.2580	0.0500	0.0412	0.0400	2.9	20.0
Chlorodibromomethane	Ave	0.2865	0.2905		0.0203	0.0200	1.4	20.0
1,2-Dibromoethane	Ave	0.3152	0.3150		0.0200	0.0200	-0.0	20.0
Chlorobenzene	Ave	0.9549	0.9088	0.3000	0.0190	0.0200	-4.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.2967		0.0195	0.0200	-2.7	20.0
Ethylbenzene	Ave	0.4876	0.4732		0.0194	0.0200	-3.0	20.0
m-Xylene & p-Xylene	Ave	0.6035	0.5758		0.0191	0.0200	-4.6	20.0
o-Xylene	Ave	0.5966	0.5766		0.0193	0.0200	-3.3	20.0
Styrene	Ave	1.061	1.035	0.3000	0.0195	0.0200	-2.4	20.0
Bromoform	Ave	0.1813	0.1741	0.1000	0.0192	0.0200	-4.0	20.0
Isopropylbenzene	Ave	1.354	1.276	0.1000	0.0188	0.0200	-5.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	0.8548	0.3000	0.0196	0.0200	-1.8	20.0
Bromobenzene	Ave	0.7395	0.6924		0.0187	0.0200	-6.4	20.0
1,2,3-Trichloropropane	Ave	0.2932	0.2865		0.0195	0.0200	-2.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.2645		0.0192	0.0200	-4.0	20.0
N-Propylbenzene	Ave	0.6900	0.6323		0.0183	0.0200	-8.4	20.0
2-Chlorotoluene	Ave	0.6689	0.6111		0.0183	0.0200	-8.6	20.0
1,3,5-Trimethylbenzene	Ave	2.135	1.960		0.0184	0.0200	-8.2	20.0
4-Chlorotoluene	Ave	0.7156	0.6562		0.0183	0.0200	-8.3	20.0
tert-Butylbenzene	Ave	1.947	1.711		0.0176	0.0200	-12.1	20.0
1,2,4-Trimethylbenzene	Ave	2.318	2.071		0.0179	0.0200	-10.7	20.0
sec-Butylbenzene	Ave	2.383	1.989		0.0167	0.0200	-16.5	20.0
1,3-Dichlorobenzene	Ave	1.294	1.151	0.6000	0.0178	0.0200	-11.1	20.0
4-Isopropyltoluene	Ave	2.004	1.704		0.0170	0.0200	-15.0	20.0
1,4-Dichlorobenzene	Ave	1.327	1.200	0.5000	0.0181	0.0200	-9.6	20.0
n-Butylbenzene	Ave	1.832	1.405		0.0153	0.0200	-23.3*	20.0
1,2-Dichlorobenzene	Ave	1.258	1.171	0.4000	0.0186	0.0200	-7.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-335864/4 Calibration Date: 07/12/2018 09:25

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12591.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1633	0.0500	0.0191	0.0200	-4.7	50.0
1,2,4-Trichlorobenzene	Lin1		0.4965	0.2000	0.0173	0.0200	-13.6	50.0
Hexachlorobutadiene	Ave	0.2716	0.1489		0.0110	0.0200	-45.2*	20.0
Naphthalene	Ave	2.435	2.029		0.0167	0.0200	-16.7	50.0
1,2,3-Trichlorobenzene	Lin1		0.4397		0.0166	0.0200	-16.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2079		0.0172	0.0200	-13.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2906		0.0164	0.0200	-18.0	20.0
Toluene-d8 (Surr)	Ave	1.301	1.142		0.0176	0.0200	-12.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4192		0.0182	0.0200	-9.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335864/6 Calibration Date: 07/12/2018 10:24

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12593.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0369		0.213	0.200	6.3	20.0
Diisopropyl ether	Ave	0.2695	0.2713		0.0201	0.0200	0.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4560		0.0202	0.0200	1.0	20.0
Ethyl tert-butyl ether	Ave	0.9338	0.9086		0.0195	0.0200	-2.7	20.0
Ethyl acetate	Ave	0.2967	0.2998		0.0404	0.0400	1.1	50.0
Propionitrile	Ave	0.0465	0.0494		0.213	0.200	6.3	20.0
Methacrylonitrile	Ave	0.2013	0.2046		0.203	0.200	1.6	20.0
Tert-amyl methyl ether	Ave	0.9402	0.9161		0.0195	0.0200	-2.6	20.0
n-Butanol	Ave	0.0086	0.0089		0.518	0.500	3.7	20.0
Ethyl acrylate	Ave	0.3810	0.4073		0.0214	0.0200	6.9	20.0
Methyl methacrylate	Ave	0.2734	0.2863		0.0419	0.0400	4.7	20.0
2-Nitropropane	Ave	0.0827	0.0839		0.0406	0.0400	1.4	20.0
n-Butyl acetate	Ave	0.4226	0.4513		0.0214	0.0200	6.8	20.0
1-Chlorohexane	Ave	0.3721	0.3202		0.0172	0.0200	-14.0	20.0
Cyclohexanone	Ave	0.0291	0.0288		0.198	0.200	-1.0	20.0
Pentachloroethane	Ave	0.1440	0.1591		0.0442	0.0400	10.5	20.0
1,2,3-Trimethylbenzene	Ave	2.420	2.228		0.0184	0.0200	-7.9	20.0
Benzyl chloride	Lin1		0.2822		0.0161	0.0200	-19.3	20.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.5458		0.0154	0.0200	-23.1*	20.0
2-Methylnaphthalene	Lin1		0.6897		0.0302	0.0400	-24.6*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: BFB5687.D BFB Injection Date: 07/13/2018

Instrument ID: A3UX16 BFB Injection Time: 09:01

Analysis Batch No.: 336057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.2	
75	30.0 - 60.0 % of mass 95	51.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.5	(0.8) 1
174	50.0 - 120.00 % of mass 95	73.2	
175	5.0 - 9.0 % of mass 174	5.1	(7.0) 1
176	95.0 - 101.0 % of mass 174	71.8	(98.0) 1
177	5.0 - 9.0 % of mass 176	4.5	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-336057/4	UXM12620.D	07/13/2018	09:29
	LCS 240-336057/5	UXM12621.D	07/13/2018	09:52
	CCV 240-336057/6	UXM12622.D	07/13/2018	10:58
	MB 240-336057/9	UXM12625.D	07/13/2018	12:10
MSA-MW-39S-070218	240-98038-7	UXM12630.D	07/13/2018	14:24
MSA-MW-43S-070218	240-98038-8	UXM12631.D	07/13/2018	14:48
TB-070518	240-98135-1	UXM12636.D	07/13/2018	16:47
DMW-17S-070518	240-98135-2	UXM12637.D	07/13/2018	17:10
DMW-17I-070518	240-98135-3	UXM12638.D	07/13/2018	17:34
DMW-17I-070518 MS	240-98135-3 MS	UXM12639.D	07/13/2018	17:58
DMW-17I-070518 MSD	240-98135-3 MSD	UXM12640.D	07/13/2018	18:22

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3501	0.3424	0.1000	0.0196	0.0200	-2.2	20.0
Chloromethane	Ave	0.3416	0.3067	0.1000	0.0180	0.0200	-10.2	20.0
Vinyl chloride	Ave	0.3322	0.3436	0.1000	0.0207	0.0200	3.4	20.0
Butadiene	Ave	0.3124	0.2960		0.0189	0.0200	-5.3	20.0
Bromomethane	Ave	0.2151	0.2177	0.0500	0.0202	0.0200	1.2	20.0
Chloroethane	Ave	0.2254	0.2144	0.0500	0.0190	0.0200	-4.9	20.0
Dichlorofluoromethane	Ave	0.4835	0.4619		0.0191	0.0200	-4.5	20.0
Trichlorofluoromethane	Ave	0.3823	0.3590	0.1000	0.0188	0.0200	-6.1	20.0
Ethyl ether	Ave	0.2374	0.2402		0.0202	0.0200	1.2	20.0
Acrolein	Ave	0.0568	0.0625		0.110	0.100	10.0	50.0
1,1-Dichloroethene	Ave	0.2294	0.2492	0.1000	0.0217	0.0200	8.6	20.0
Acetone	Ave	0.0313	0.0316	0.0100	0.0404	0.0400	1.0	50.0
1,1,2-Trichlorotrifluoroethane	Ave	0.1581	0.1600	0.0500	0.0202	0.0200	1.2	20.0
Iodomethane	Ave	0.3694	0.3800		0.0206	0.0200	2.9	20.0
Carbon disulfide	Ave	0.6001	0.4958	0.1000	0.0165	0.0200	-17.4	20.0
3-Chloro-1-propene	Ave	0.4305	0.4247		0.0197	0.0200	-1.3	20.0
Methyl acetate	Ave	0.2509	0.2549	0.1000	0.0406	0.0400	1.6	20.0
Methylene Chloride	Ave	0.2986	0.2835	0.1000	0.0190	0.0200	-5.1	50.0
tert-Butyl alcohol	Ave	0.0303	0.0336		0.222	0.200	10.9	50.0
Acrylonitrile	Ave	0.1235	0.1269		0.205	0.200	2.7	20.0
trans-1,2-Dichloroethene	Ave	0.2866	0.2890	0.1000	0.0202	0.0200	0.8	20.0
Methyl tert-butyl ether	Ave	0.9283	0.9123	0.1000	0.0197	0.0200	-1.7	20.0
Hexane	Lin1		0.2155		0.0185	0.0200	-7.3	20.0
1,1-Dichloroethane	Ave	0.4918	0.4866	0.2000	0.0198	0.0200	-1.1	20.0
Vinyl acetate	Ave	0.4878	0.4724		0.0194	0.0200	-3.1	50.0
2,2-Dichloropropane	Ave	0.0726	0.0650		0.0179	0.0200	-10.5	20.0
cis-1,2-Dichloroethene	Ave	0.3171	0.3215	0.1000	0.0203	0.0200	1.4	20.0
2-Butanone (MEK)	Ave	0.0429	0.0432	0.0100	0.0403	0.0400	0.7	20.0
Bromochloromethane	Ave	0.1407	0.1391		0.0198	0.0200	-1.1	20.0
Tetrahydrofuran	Ave	0.1000	0.0935		0.0374	0.0400	-6.5	20.0
Chloroform	Ave	0.4857	0.4808	0.2000	0.0198	0.0200	-1.0	20.0
1,1,1-Trichloroethane	Ave	0.3857	0.3817	0.1000	0.0198	0.0200	-1.1	20.0
Cyclohexane	Ave	0.3594	0.3548	0.1000	0.0197	0.0200	-1.3	20.0
1,1-Dichloropropene	Ave	0.3933	0.3909		0.0199	0.0200	-0.6	20.0
Carbon tetrachloride	Ave	0.2981	0.3000	0.1000	0.0201	0.0200	0.6	20.0
Isobutyl alcohol	Ave	0.0104	0.0104		0.497	0.500	-0.5	20.0
1,2-Dichloroethane	Ave	0.4252	0.4198	0.1000	0.0197	0.0200	-1.3	20.0
Benzene	Ave	1.187	1.190	0.5000	0.0201	0.0200	0.3	20.0
n-Heptane	Lin1		0.1237		0.0155	0.0200	-22.5*	20.0
Trichloroethene	Ave	0.2987	0.2881	0.1500	0.0193	0.0200	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Lin1		0.2850	0.1000	0.0184	0.0200	-7.9	20.0
1,2-Dichloropropane	Ave	0.2689	0.2622	0.1000	0.0195	0.0200	-2.5	20.0
1,4-Dioxane	Lin1		0.0036		0.437	0.400	9.3	50.0
Dibromomethane	Ave	0.1703	0.1743		0.0205	0.0200	2.4	20.0
Bromodichloromethane	Ave	0.3586	0.3560	0.1500	0.0199	0.0200	-0.7	20.0
2-Chloroethyl vinyl ether	Ave	0.1861	0.1834		0.0394	0.0400	-1.5	20.0
cis-1,3-Dichloropropene	Ave	0.4415	0.4383	0.1500	0.0199	0.0200	-0.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2914	0.2954	0.0500	0.0406	0.0400	1.4	20.0
Toluene	Ave	1.549	1.470	0.4000	0.0190	0.0200	-5.1	20.0
trans-1,3-Dichloropropene	Ave	0.5083	0.4832	0.1000	0.0190	0.0200	-4.9	20.0
Ethyl methacrylate	Ave	0.5086	0.4921		0.0194	0.0200	-3.2	20.0
1,1,2-Trichloroethane	Ave	0.3099	0.3003	0.1000	0.0194	0.0200	-3.1	20.0
Tetrachloroethene	Ave	0.2346	0.2178	0.1500	0.0186	0.0200	-7.2	20.0
1,3-Dichloropropane	Ave	0.5752	0.5556		0.0193	0.0200	-3.4	20.0
2-Hexanone	Ave	0.2507	0.2551	0.0500	0.0407	0.0400	1.7	20.0
Chlorodibromomethane	Ave	0.2865	0.2825		0.0197	0.0200	-1.4	20.0
1,2-Dibromoethane	Ave	0.3152	0.3037		0.0193	0.0200	-3.7	20.0
Chlorobenzene	Ave	0.9549	0.8890	0.3000	0.0186	0.0200	-6.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3050	0.2863		0.0188	0.0200	-6.1	20.0
Ethylbenzene	Ave	0.4876	0.4674		0.0192	0.0200	-4.2	20.0
m-Xylene & p-Xylene	Ave	0.6035	0.5723		0.0190	0.0200	-5.2	20.0
o-Xylene	Ave	0.5966	0.5781		0.0194	0.0200	-3.1	20.0
Styrene	Ave	1.061	1.021	0.3000	0.0192	0.0200	-3.8	20.0
Bromoform	Ave	0.1813	0.1718	0.1000	0.0189	0.0200	-5.3	20.0
Isopropylbenzene	Ave	1.354	1.246	0.1000	0.0184	0.0200	-8.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.8700	0.8660	0.3000	0.0199	0.0200	-0.5	20.0
Bromobenzene	Ave	0.7395	0.6854		0.0185	0.0200	-7.3	20.0
1,2,3-Trichloropropane	Ave	0.2932	0.2821		0.0192	0.0200	-3.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2756	0.2677		0.0194	0.0200	-2.9	20.0
N-Propylbenzene	Ave	0.6900	0.6282		0.0182	0.0200	-9.0	20.0
2-Chlorotoluene	Ave	0.6689	0.6100		0.0182	0.0200	-8.8	20.0
1,3,5-Trimethylbenzene	Ave	2.135	1.941		0.0182	0.0200	-9.1	20.0
4-Chlorotoluene	Ave	0.7156	0.6416		0.0179	0.0200	-10.3	20.0
tert-Butylbenzene	Ave	1.947	1.735		0.0178	0.0200	-10.9	20.0
1,2,4-Trimethylbenzene	Ave	2.318	2.082		0.0180	0.0200	-10.2	20.0
sec-Butylbenzene	Ave	2.383	2.014		0.0169	0.0200	-15.5	20.0
1,3-Dichlorobenzene	Ave	1.294	1.140	0.6000	0.0176	0.0200	-11.9	20.0
4-Isopropyltoluene	Ave	2.004	1.725		0.0172	0.0200	-13.9	20.0
1,4-Dichlorobenzene	Ave	1.327	1.214	0.5000	0.0183	0.0200	-8.5	20.0
n-Butylbenzene	Ave	1.832	1.450		0.0158	0.0200	-20.9*	20.0
1,2-Dichlorobenzene	Ave	1.258	1.159	0.4000	0.0184	0.0200	-7.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336057/4 Calibration Date: 07/13/2018 09:29

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 18:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/06/2018 20:58

Lab File ID: UXM12620.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1714	0.1611	0.0500	0.0188	0.0200	-6.0	50.0
1,2,4-Trichlorobenzene	Lin1		0.4946	0.2000	0.0172	0.0200	-14.0	50.0
Hexachlorobutadiene	Ave	0.2716	0.1624		0.0120	0.0200	-40.2*	20.0
Naphthalene	Ave	2.435	2.024		0.0166	0.0200	-16.9	50.0
1,2,3-Trichlorobenzene	Lin1		0.4494		0.0170	0.0200	-15.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2415	0.2078		0.0172	0.0200	-14.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3545	0.2885		0.0163	0.0200	-18.6	20.0
Toluene-d8 (Surr)	Ave	1.301	1.110		0.0171	0.0200	-14.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4608	0.4201		0.0182	0.0200	-8.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336057/6 Calibration Date: 07/13/2018 10:58

Instrument ID: A3UX16 Calib Start Date: 07/06/2018 23:04

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/07/2018 01:02

Lab File ID: UXM12622.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0347	0.0388		0.224	0.200	11.9	20.0
Diisopropyl ether	Ave	0.2695	0.2795		0.0207	0.0200	3.7	20.0
2-Chloro-1,3-butadiene	Ave	0.4517	0.4895		0.0217	0.0200	8.4	20.0
Ethyl tert-butyl ether	Ave	0.9338	0.9329		0.0200	0.0200	-0.1	20.0
Ethyl acetate	Ave	0.2967	0.2912		0.0393	0.0400	-1.8	50.0
Propionitrile	Ave	0.0465	0.0511		0.220	0.200	10.0	20.0
Methacrylonitrile	Ave	0.2013	0.2063		0.205	0.200	2.5	20.0
Tert-amyl methyl ether	Ave	0.9402	0.9502		0.0202	0.0200	1.1	20.0
n-Butanol	Ave	0.0086	0.0080		0.468	0.500	-6.5	20.0
Ethyl acrylate	Ave	0.3810	0.3874		0.0203	0.0200	1.7	20.0
Methyl methacrylate	Ave	0.2734	0.2795		0.0409	0.0400	2.2	20.0
2-Nitropropane	Ave	0.0827	0.0839		0.0405	0.0400	1.4	20.0
n-Butyl acetate	Ave	0.4226	0.4246		0.0201	0.0200	0.5	20.0
1-Chlorohexane	Ave	0.3721	0.3344		0.0180	0.0200	-10.1	20.0
Cyclohexanone	Ave	0.0291	0.0281		0.193	0.200	-3.5	20.0
Pentachloroethane	Ave	0.1440	0.1170		0.0325	0.0400	-18.7	20.0
1,2,3-Trimethylbenzene	Ave	2.420	2.280		0.0188	0.0200	-5.8	20.0
Benzyl chloride	Lin1		0.2740		0.0157	0.0200	-21.6*	20.0
1,3,5-Trichlorobenzene	Ave	0.7094	0.5434		0.0153	0.0200	-23.4*	20.0
2-Methylnaphthalene	Lin1		0.6441		0.0280	0.0400	-29.9*	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: bfb028.d BFB Injection Date: 07/13/2018

Instrument ID: A3UX19 BFB Injection Time: 11:39

Analysis Batch No.: 336107

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	1.0	(1.2) 1
174	50.0 - 120.00 % of mass 95	83.8	
175	5.0 - 9.0 % of mass 174	6.3	(7.5) 1
176	95.0 - 101.0 % of mass 174	82.3	(98.2) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-336107/8	U1900604.d	07/13/2018	12:25
	STD8260 240-336107/9	U1900605.d	07/13/2018	12:47
	STD8260 240-336107/10	U1900606.d	07/13/2018	13:10
	ICIS 240-336107/11	U1900607.d	07/13/2018	13:32
	STD8260 240-336107/12	U1900608.d	07/13/2018	13:53
	STD8260 240-336107/13	U1900609.d	07/13/2018	14:16
	STD8260 240-336107/14	U1900610.d	07/13/2018	14:38
	ICV 240-336107/15	U1900611.d	07/13/2018	15:00
	STDA9 240-336107/18	U1900614.d	07/13/2018	16:07
	STDA9 240-336107/19	U1900615.d	07/13/2018	16:29
	STDA9 240-336107/20	U1900616.d	07/13/2018	16:51
	STDA9 240-336107/21	U1900617.d	07/13/2018	17:13
	STDA9 240-336107/22	U1900618.d	07/13/2018	17:35
	STDA9 240-336107/23	U1900619.d	07/13/2018	17:58
	ICV 240-336107/24	U1900620.d	07/13/2018	18:20

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-336107/8	U1900604.d
Level 2	STD8260 240-336107/9	U1900605.d
Level 3	STD8260 240-336107/10	U1900606.d
Level 4	ICIS 240-336107/11	U1900607.d
Level 5	STD8260 240-336107/12	U1900608.d
Level 6	STD8260 240-336107/13	U1900609.d
Level 7	STD8260 240-336107/14	U1900610.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.3975	0.2679 0.3856	0.3553	0.3971	0.3997	Ave		0.3672			0.1000	14.0		20.0			
Chloromethane	0.3692 0.3417	0.3503 0.3352	0.3465	0.3456	0.3644	Ave		0.3504			0.1000	3.5		20.0			
Butadiene	0.2872 0.3332	0.2939 0.3245	0.3295	0.3391	0.3524	Ave		0.3228				7.4		20.0			
Vinyl chloride	0.3063 0.3468	0.3068 0.3333	0.3488	0.3496	0.3606	Ave		0.3360			0.1000	6.4		20.0			
Bromomethane	0.2604 0.2205	0.2469 0.2114	0.2383	0.2328	0.2384	Ave		0.2355			0.0500	6.9		20.0			
Chloroethane	0.1878 0.1876	0.1997 0.1818	0.2037	0.1997	0.2049	Ave		0.1950			0.0500	4.7		20.0			
Dichlorofluoromethane	0.4453 0.4502	0.4812 0.4381	0.4771	0.4644	0.4844	Ave		0.4630				4.0		20.0			
Trichlorofluoromethane	0.3624 0.4467	0.4174 0.4315	0.4536	0.4539	0.4684	Ave		0.4334			0.1000	8.2		20.0			
Ethyl ether	0.1986 0.1996	0.1882 0.2018	0.2182	0.2086	0.1924	Ave		0.2011				5.0		20.0			
Acrolein	0.0431 0.0555	0.0450 0.0531	0.0574	0.0562	0.0602	Ave		0.0529				12.2		20.0			
1,1-Dichloroethene	0.3363 0.3821	0.3464 0.3755	0.4123	0.4021	0.3731	Ave		0.3754			0.1000	7.3		20.0			
1,1,2-Trichlorotrifluoroethane	0.1805 0.2512	0.2048 0.2501	0.2561	0.2750	0.2434	Ave		0.2373			0.0500	13.8		20.0			
Acetone	0.2207 0.0939	0.1416 0.0924	0.1036	0.0956	0.0880	Lin1	0.1227	0.0914			0.0100	7.5			0.9990		0.9900
Iodomethane	0.3833 0.4644	0.4285 0.4622	0.4929	0.4879	0.4538	Ave		0.4533				8.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7338 0.7717	0.7206 0.7763	0.8165	0.8046	0.7498	Ave		0.7676			0.1000	4.6		20.0			
3-Chloro-1-propene	0.4485 0.3943	0.3981 0.3901	0.4169	0.4195	0.3827	Ave		0.4071				5.6		20.0			
Methyl acetate	0.1953 0.2224	0.2055 0.2285	0.2413	0.2309	0.2090	Ave		0.2190			0.1000	7.4		20.0			
Methylene Chloride	+++++ 0.3046	0.3922 0.3045	0.3379	0.3304	0.3008	Ave		0.3284			0.1000	10.6		20.0			
tert-Butyl alcohol	0.0334 0.0412	0.0317 0.0409	0.0424	0.0429	0.0385	Ave		0.0387				11.5		20.0			
Acrylonitrile	0.0820 0.1092	0.0917 0.1090	0.1176	0.1135	0.1027	Ave		0.1037				12.2		20.0			
trans-1,2-Dichloroethene	0.3329 0.3663	0.3435 0.3610	0.3993	0.3822	0.3558	Ave		0.3630			0.1000	6.2		20.0			
Methyl tert-butyl ether	0.6788 0.7358	0.6879 0.7393	0.7961	0.7877	0.7228	Ave		0.7355			0.1000	6.1		20.0			
Hexane	+++++ 0.3365	0.2459 0.3522	0.3269	0.3541	0.3130	Ave		0.3214				12.5		20.0			
1,1-Dichloroethane	0.4191 0.4491	0.3945 0.4518	0.4889	0.4717	0.4307	Ave		0.4437			0.2000	7.2		20.0			
Vinyl acetate	0.3527 0.3491	0.3265 0.3461	0.4108	0.3901	0.3580	Ave		0.3619				7.9		20.0			
cis-1,2-Dichloroethene	0.2678 0.3083	0.2912 0.3096	0.3282	0.3148	0.2964	Ave		0.3023			0.1000	6.4		20.0			
2,2-Dichloropropane	0.3081 0.3113	0.3041 0.3030	0.3500	0.3285	0.3034	Ave		0.3155				5.6		20.0			
2-Butanone (MEK)	0.0298 0.0367	0.0322 0.0380	0.0387	0.0369	0.0338	Ave		0.0352			0.0100	9.4		20.0			
Bromochloromethane	0.1895 0.2031	0.2033 0.2056	0.2243	0.2199	0.1996	Ave		0.2065				5.8		20.0			
Tetrahydrofuran	0.0885 0.0897	0.0745 0.0939	0.0978	0.0907	0.0832	Ave		0.0883				8.6		20.0			
Chloroform	0.4095 0.4602	0.4168 0.4644	0.4994	0.4804	0.4456	Ave		0.4538			0.2000	7.2		20.0			
1,1,1-Trichloroethane	0.3549 0.4182	0.3635 0.4218	0.4521	0.4324	0.4029	Ave		0.4065			0.1000	8.8		20.0			
Cyclohexane	0.2884 0.3946	0.3018 0.3999	0.4044	0.4204	0.3807	Ave		0.3700			0.1000	14.2		20.0			
1,1-Dichloropropene	0.3155 0.3586	0.3369 0.3678	0.3823	0.3630	0.3403	Ave		0.3521				6.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3138 0.3723	0.3220 0.3819	0.3898	0.3853	0.3540	Ave		0.3599			0.1000	8.6		20.0			
Isobutyl alcohol	0.0091 0.0118	0.0089 0.0120	0.0122	0.0116	0.0107	Ave		0.0109				12.8		20.0			
Benzene	0.9308 0.9850	0.9428 1.0126	1.0570	1.0136	0.9431	Ave		0.9836			0.5000	4.8		20.0			
1,2-Dichloroethane	0.3234 0.3225	0.3082 0.3303	0.3511	0.3369	0.3087	Ave		0.3259			0.1000	4.7		20.0			
n-Heptane	+++++ 0.1845	0.7517 0.1925	0.2275	0.2086	0.1740	Lin1	0.5646	0.1765				6.4			0.9970		0.9900
Trichloroethene	0.2912 0.3040	0.2919 0.3142	0.3184	0.3005	0.2792	Ave		0.2999			0.1500	4.6		20.0			
Methylcyclohexane	0.3325 0.4716	0.3620 0.4904	0.4762	0.4920	0.4479	Ave		0.4389			0.1000	14.8		20.0			
1,2-Dichloropropane	0.1990 0.2201	0.1983 0.2294	0.2340	0.2241	0.2082	Ave		0.2161			0.1000	6.7		20.0			
Dibromomethane	0.1985 0.1971	0.1786 0.2065	0.2128	0.2015	0.1904	Ave		0.1979				5.6		20.0			
1,4-Dioxane	0.0022 0.0033	0.0018 0.0033	0.0032	0.0033	0.0029	Lin1	-0.017	0.0032				12.8			0.9980		0.9900
Bromodichloromethane	0.2961 0.3217	0.2748 0.3358	0.3365	0.3208	0.3025	Ave		0.3126			0.1500	7.2		20.0			
2-Chloroethyl vinyl ether	0.1309 0.1367	0.1225 0.1490	0.1399	0.1328	0.1246	Ave		0.1338				6.8		20.0			
cis-1,3-Dichloropropene	0.3223 0.3489	0.3020 0.3716	0.3519	0.3424	0.3175	Ave		0.3367			0.1500	7.1		20.0			
4-Methyl-2-pentanone (MIBK)	0.2313 0.2625	0.2176 0.2770	0.2775	0.2646	0.2483	Ave		0.2541			0.0500	9.0		20.0			
Toluene	1.4470 1.3258	1.3308 1.3555	1.4432	1.3756	1.3037	Ave		1.3688			0.4000	4.2		20.0			
trans-1,3-Dichloropropene	0.3846 0.4087	0.3744 0.4301	0.4204	0.4055	0.3878	Ave		0.4016			0.1000	5.0		20.0			
Ethyl methacrylate	0.3415 0.3790	0.3261 0.4046	0.4023	0.3848	0.3682	Ave		0.3723				7.9		20.0			
1,1,2-Trichloroethane	0.2569 0.2593	0.2452 0.2724	0.2856	0.2690	0.2525	Ave		0.2630			0.1000	5.2		20.0			
Tetrachloroethene	0.3719 0.4065	0.3927 0.4168	0.4380	0.4214	0.3984	Ave		0.4065			0.1500	5.3		20.0			
1,3-Dichloropropane	0.4278 0.4378	0.4065 0.4540	0.4795	0.4507	0.4242	Ave		0.4401				5.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Hexanone	0.2122 0.2214	0.1842 0.2382	0.2477	0.2223	0.2092	Ave		0.2193			0.0500	9.4		20.0			
Chlorodibromomethane	0.3074 0.3293	0.2790 0.3451	0.3450	0.3285	0.3206	Ave		0.3221				7.2		20.0			
1,2-Dibromoethane	0.2719 0.2805	0.2697 0.2960	0.3010	0.2872	0.2702	Ave		0.2824				4.5		20.0			
Chlorobenzene	0.7791 0.8783	0.8579 0.9120	0.9472	0.9041	0.8541	Ave		0.8761			0.3000	6.1		20.0			
1,1,1,2-Tetrachloroethane	0.2828 0.3554	0.3282 0.3585	0.3701	0.3642	0.3480	Ave		0.3439				8.8		20.0			
Ethylbenzene	0.4896 0.4908	0.4843 0.5079	0.5245	0.4996	0.4798	Ave		0.4966				3.1		20.0			
m-Xylene & p-Xylene	0.5632 0.6008	0.5445 0.6226	0.6419	0.6121	0.5901	Ave		0.5964				5.7		20.0			
o-Xylene	0.5206 0.6131	0.5589 0.6288	0.6559	0.6300	0.6076	Ave		0.6021				7.7		20.0			
Styrene	0.8780 0.9610	0.8485 1.0208	1.0125	0.9634	0.9456	Ave		0.9471			0.3000	6.8		20.0			
Bromoform	0.2103 0.2546	0.2027 0.2734	0.2554	0.2540	0.2427	Ave		0.2419			0.1000	10.7		20.0			
Isopropylbenzene	1.3278 1.6741	1.4973 1.7086	1.7929	1.7375	1.6657	Ave		1.6291			0.1000	9.9		20.0			
1,1,2,2-Tetrachloroethane	0.6021 0.6647	0.6030 0.7102	0.7729	0.7138	0.6770	Ave		0.6777			0.3000	9.1		20.0			
Bromobenzene	0.6066 0.6384	0.6247 0.6932	0.7016	0.6743	0.6276	Ave		0.6523				5.7		20.0			
1,2,3-Trichloropropane	0.2221 0.2247	0.2203 0.2450	0.2636	0.2391	0.2182	Ave		0.2333				7.2		20.0			
trans-1,4-Dichloro-2-butene	0.1617 0.1695	0.1552 0.1958	0.1876	0.1695	0.1619	Ave		0.1716				8.6		20.0			
N-Propylbenzene	0.7132 0.7307	0.6822 0.7834	0.8002	0.7540	0.7143	Ave		0.7397				5.7		20.0			
2-Chlorotoluene	0.6334 0.6291	0.6213 0.6629	0.6912	0.6665	0.6188	Ave		0.6462				4.3		20.0			
1,3,5-Trimethylbenzene	1.9247 2.2122	1.9319 2.3401	2.4235	2.3425	2.2013	Ave		2.1966				9.1		20.0			
4-Chlorotoluene	0.5970 0.6261	0.5738 0.6768	0.6856	0.6440	0.6107	Ave		0.6306				6.5		20.0			
tert-Butylbenzene	1.8318 2.1032	1.7927 2.2297	2.2435	2.1737	2.0712	Ave		2.0637				8.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,4-Trimethylbenzene	2.0296 2.2966	2.0272 2.4082	2.5031	2.3960	2.2647	Ave		2.2751				8.2		20.0			
sec-Butylbenzene	2.5497 2.9819	2.6514 3.1332	3.2497	3.1225	2.9294	Ave		2.9454				8.8		20.0			
1,3-Dichlorobenzene	1.2711 1.3171	1.3200 1.4218	1.4602	1.3707	1.3083	Ave		1.3527			0.6000	5.0		20.0			
4-Isopropyltoluene	2.0424 2.6178	2.1891 2.7582	2.8388	2.7296	2.6009	Ave		2.5396				12.0		20.0			
1,4-Dichlorobenzene	1.3817 1.3267	1.3026 1.4258	1.4825	1.3834	1.3172	Ave		1.3743			0.5000	4.7		20.0			
n-Butylbenzene	1.8731 2.3084	1.9263 2.4510	2.5338	2.4501	2.3038	Ave		2.2638				11.6		20.0			
1,2-Dichlorobenzene	1.2343 1.3055	1.2985 1.3527	1.4661	1.3680	1.3000	Ave		1.3321			0.4000	5.5		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.2331	0.1442 0.2418	0.2529	0.2456	0.2241	Ave		0.2236			0.0500	18.0		20.0			
1,2,4-Trichlorobenzene	0.9422 1.0399	0.9536 1.0920	1.1232	1.1189	1.0423	Ave		1.0446			0.2000	7.1		20.0			
Hexachlorobutadiene	0.4255 0.5342	0.4421 0.5660	0.5596	0.5506	0.5326	Ave		0.5158				11.1		20.0			
Naphthalene	2.2888 2.8920	2.2963 2.9592	3.1324	3.1047	2.8952	Ave		2.7955				12.7		20.0			
1,2,3-Trichlorobenzene	0.8796 0.9991	0.8584 1.0305	1.0947	1.0749	0.9949	Ave		0.9903				9.2		20.0			
Dibromofluoromethane (Surr)	0.2538 0.2615	0.2725 0.2604	0.2779	0.2656	0.2662	Ave		0.2654				3.0		20.0			
1,2-Dichloroethane-d4 (Surr)	0.2812 0.2733	0.2996 0.2769	0.2969	0.2836	0.2778	Ave		0.2842				3.6		20.0			
Toluene-d8 (Surr)	1.2501 1.1735	1.2078 1.1858	1.2552	1.1935	1.2016	Ave		1.2097				2.6		20.0			
4-Bromofluorobenzene (Surr)	0.4979 0.4211	0.4494 0.4422	0.4453	0.4225	0.4352	Ave		0.4448				5.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-336107/8	U1900604.d
Level 2	STD8260 240-336107/9	U1900605.d
Level 3	STD8260 240-336107/10	U1900606.d
Level 4	ICIS 240-336107/11	U1900607.d
Level 5	STD8260 240-336107/12	U1900608.d
Level 6	STD8260 240-336107/13	U1900609.d
Level 7	STD8260 240-336107/14	U1900610.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 1165842	13218 1551132	168289	371065	752980	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Chloromethane	FB	Ave	9732 1002154	17286 1348432	164130	322896	686376	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Butadiene	FB	Ave	7571 977098	14504 1305279	156063	316874	663874	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl chloride	FB	Ave	8074 1017123	15139 1340570	165209	326660	679241	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromomethane	FB	Ave	6864 646814	12185 850215	112867	217508	449072	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Chloroethane	FB	Ave	4950 550096	9856 731242	96459	186577	385974	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dichlorofluoromethane	FB	Ave	11740 1320520	23744 1762011	225951	433941	912479	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Trichlorofluoromethane	FB	Ave	9553 1310137	20597 1735588	214836	424078	882295	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl ether	FB	Ave	5237 585368	9287 811730	103331	194913	362512	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acrolein	FB	Ave	5679 814579	11094 1067871	135819	262442	567176	2.50 300	5.00 400	50.0	100	200
1,1-Dichloroethene	FB	Ave	8867 1120681	17092 1510204	195290	375764	702857	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichlorotrifluoroethane	FB	Ave	4758 736788	10105 1006108	121274	256975	458542	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Acetone	FB	Lin1	11639 551055	13979 743320	98124	178698	331713	1.00 120	2.00 160	20.0	40.0	80.0
Iodomethane	FB	Ave	10105 1362109	21147 1859329	233465	455855	854742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon disulfide	FB	Ave	19345 2263402	35559 3122416	386727	751774	1412466	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
3-Chloro-1-propene	FB	Ave	11824 1156447	19643 1568943	197436	392021	720862	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl acetate	FB	Ave	10300 1304553	20281 1837908	228608	431472	787414	1.00 120	2.00 160	20.0	40.0	80.0
Methylene Chloride	FB	Ave	+++++ 893486	19353 1224616	160014	308679	566589	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butyl alcohol	FB	Ave	8809 1209296	15657 1646358	200717	400427	724927	5.00 600	10.0 800	100	200	400
Acrylonitrile	FB	Ave	21610 3204006	45226 4383240	557021	1060849	1934154	5.00 600	10.0 800	100	200	400
trans-1,2-Dichloroethene	FB	Ave	8775 1074290	16948 1452066	189097	357120	670311	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methyl tert-butyl ether	FB	Ave	17894 2157865	33947 2973563	377053	736019	1361542	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexane	FB	Ave	+++++ 987048	12135 1416682	154820	330866	589669	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloroethane	FB	Ave	11049 1317189	19468 1817122	231561	440773	811370	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Vinyl acetate	FB	Ave	9299 1023830	16113 1392187	194583	364473	674334	0.500 60.0	1.00 80.0	10.0	20.0	40.0
cis-1,2-Dichloroethene	FB	Ave	7060 904289	14368 1245504	155461	294116	558373	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2,2-Dichloropropane	FB	Ave	8123 912906	15004 1218918	165761	306930	571440	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Butanone (MEK)	FB	Ave	1570 215500	3181 305998	36627	68927	127433	1.00 120	2.00 160	20.0	40.0	80.0
Bromochloromethane	FB	Ave	4995 595526	10030 827106	106228	205498	375962	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrahydrofuran	FB	Ave	4666 526292	7354 755562	92658	169488	313526	1.00 120	2.00 160	20.0	40.0	80.0
Chloroform	FB	Ave	10795 1349578	20569 1867942	236538	448912	839325	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	9355 1226584	17937 1696674	214105	404041	758989	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Cyclohexane	FB	Ave	7604 1157161	14891 1608550	191544	392811	717104	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1-Dichloropropene	FB	Ave	8318 1051770	16627 1479433	181046	339192	640936	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Carbon tetrachloride	FB	Ave	8272 1091912	15887 1536299	184613	360011	666812	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isobutyl alcohol	FB	Ave	5996 863627	10932 1210789	143924	270905	504569	12.5 1500	25.0 2000	250	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzene	FB	Ave	24539 2888875	46523 4072986	500600	947121	1776600	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane	FB	Ave	8527 945819	15210 1328601	166276	314764	581560	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Heptane	FB	Lin1	+++++ 541005	37093 774351	107770	194919	327849	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
Trichloroethene	FB	Ave	7678 891589	14405 1263849	150778	280749	525844	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Methylcyclohexane	FB	Ave	8766 1383271	17861 1972578	225516	459686	843716	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloropropane	FB	Ave	5246 645492	9785 922762	110815	209364	392142	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromomethane	FB	Ave	5234 578015	8812 830740	100803	188304	358575	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,4-Dioxane	FB	Lin1	1135 191556	1760 263727	29862	61076	109035	10.0 1200	20.0 1600	200	400	800
Bromodichloromethane	FB	Ave	7807 943355	13559 1350808	159356	299768	569859	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chloroethyl vinyl ether	FB	Ave	6904 801764	12088 1198522	132550	248258	469441	1.00 120	2.00 160	20.0	40.0	80.0
cis-1,3-Dichloropropene	FB	Ave	8498 1023420	14901 1494637	166666	319908	598018	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	12198 1539908	21480 2228710	262891	494415	935612	1.00 120	2.00 160	20.0	40.0	80.0
Toluene	CBNZ d5	Ave	28809 2919705	48273 4206587	496616	933434	1774790	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,3-Dichloropropene	CBNZ d5	Ave	7657 900097	13582 1334577	144673	275142	527902	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethyl methacrylate	CBNZ d5	Ave	6799 834519	11827 1255711	138423	261108	501289	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2-Trichloroethane	CBNZ d5	Ave	5115 571102	8895 845197	98264	182532	343666	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Tetrachloroethene	CBNZ d5	Ave	7405 895249	14244 1293308	150731	285925	542370	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichloropropane	CBNZ d5	Ave	8518 964155	14745 1408823	164986	305807	577513	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Hexanone	CBNZ d5	Ave	8451 975269	13365 1478642	170443	301729	569507	1.00 120	2.00 160	20.0	40.0	80.0
Chlorodibromomethane	CBNZ d5	Ave	6120 725222	10121 1070816	118719	222936	436377	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromoethane	CBNZ d5	Ave	5414 617710	9782 918532	103562	194912	367837	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	15511 1934127	31120 2830248	325946	613486	1162742	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	5631 782664	11904 1112615	127349	247119	473715	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Ethylbenzene	CBNZ d5	Ave	9747 1080919	17568 1576284	180482	339000	653097	0.500 60.0	1.00 80.0	10.0	20.0	40.0
m-Xylene & p-Xylene	CBNZ d5	Ave	11212 1322967	19749 1931959	220876	415348	803288	0.500 60.0	1.00 80.0	10.0	20.0	40.0
o-Xylene	CBNZ d5	Ave	10365 1350069	20273 1951334	225710	427534	827131	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Styrene	CBNZ d5	Ave	17481 2116187	30777 3167772	348410	653739	1287280	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromoform	CBNZ d5	Ave	4186 560657	7352 848491	87889	172392	330417	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Isopropylbenzene	CBNZ d5	Ave	26435 3686578	54312 5302111	616955	1179054	2267498	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	7116 936572	13737 1361473	166507	308240	595153	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Bromobenzene	DCBd 4	Ave	7169 899489	14231 1329005	151135	291201	551756	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichloropropane	DCBd 4	Ave	2625 316656	5019 469690	56791	103267	191783	0.500 60.0	1.00 80.0	10.0	20.0	40.0
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	1911 238762	3535 375434	40412	73211	142354	0.500 60.0	1.00 80.0	10.0	20.0	40.0
N-Propylbenzene	DCBd 4	Ave	8430 1029586	15542 1501799	172380	325615	627977	0.500 60.0	1.00 80.0	10.0	20.0	40.0
2-Chlorotoluene	DCBd 4	Ave	7486 886384	14155 1270906	148897	287830	544006	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	22749 3116884	44013 4486318	522088	1011535	1935192	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Chlorotoluene	DCBd 4	Ave	7056 882087	13072 1297581	147684	278087	536916	0.500 60.0	1.00 80.0	10.0	20.0	40.0
tert-Butylbenzene	DCBd 4	Ave	21650 2963331	40841 4274518	483293	938652	1820836	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	23988 3235763	46185 4616761	539235	1034637	1990930	0.500 60.0	1.00 80.0	10.0	20.0	40.0
sec-Butylbenzene	DCBd 4	Ave	30136 4201306	60404 6006822	700074	1348372	2575231	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,3-Dichlorobenzene	DCBd 4	Ave	15023 1855725	30072 2725743	314566	591905	1150096	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Isopropyltoluene	DCBd 4	Ave	24140 3688409	49872 5287837	611537	1178730	2286463	0.500 60.0	1.00 80.0	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dichlorobenzene	DCBd 4	Ave	16331 1869290	29675 2733373	319358	597406	1157958	0.500 60.0	1.00 80.0	10.0	20.0	40.0
n-Butylbenzene	DCBd 4	Ave	22138 3252435	43885 4698864	545844	1058006	2025279	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichlorobenzene	DCBd 4	Ave	14588 1839382	29582 2593237	315830	590727	1142800	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++ 328388	3285 463467	54480	106062	197048	+++++ 60.0	1.00 80.0	10.0	20.0	40.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	11136 1465144	21726 2093473	241974	483185	916308	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Hexachlorobutadiene	DCBd 4	Ave	5029 752639	10073 1085105	120542	237751	468173	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Naphthalene	DCBd 4	Ave	27052 4074658	52314 5673228	674787	1340667	2545160	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2,3-Trichlorobenzene	DCBd 4	Ave	10396 1407711	19557 1975541	235829	464159	874599	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Dibromofluoromethane (Surr)	FB	Ave	6692 766959	13448 1047450	131611	248173	501457	0.500 60.0	1.00 80.0	10.0	20.0	40.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7414 801667	14784 1113708	140628	265008	523316	0.500 60.0	1.00 80.0	10.0	20.0	40.0
Toluene-d8 (Surr)	CBNZ d5	Ave	24888 2584360	43812 3679948	431944	809849	1635759	0.500 60.0	1.00 80.0	10.0	20.0	40.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	9912 927285	16302 1372351	153250	286689	592496	0.500 60.0	1.00 80.0	10.0	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 12:25 Calibration End Date: 07/13/2018 14:38 Calibration ID: 45930

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-336107/8	U1900604.d
Level 2	STD8260 240-336107/9	U1900605.d
Level 3	STD8260 240-336107/10	U1900606.d
Level 4	ICIS 240-336107/11	U1900607.d
Level 5	STD8260 240-336107/12	U1900608.d
Level 6	STD8260 240-336107/13	U1900609.d
Level 7	STD8260 240-336107/14	U1900610.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	7.4						50					
n-Heptane	+++++	6.0						50				
1,4-Dioxane	19.4						50					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 16:07 Calibration End Date: 07/13/2018 17:58 Calibration ID: 45934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-336107/18	U1900614.d
Level 2	STDA9 240-336107/19	U1900615.d
Level 3	STDA9 240-336107/20	U1900616.d
Level 4	STDA9 240-336107/21	U1900617.d
Level 5	STDA9 240-336107/22	U1900618.d
Level 6	STDA9 240-336107/23	U1900619.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetonitrile	0.0469 0.0400	0.0417	0.0440	0.0411	0.0433	Ave		0.0429				5.8		20.0			
Diisopropyl ether	0.2259 0.2324	0.2187	0.2397	0.2313	0.2496	Ave		0.2329				4.6		20.0			
2-Chloro-1,3-butadiene	0.3595 0.4295	0.3718	0.4397	0.4307	0.4539	Ave		0.4142				9.4		20.0			
Ethyl tert-butyl ether	0.7624 0.7641	0.7375	0.8144	0.7659	0.8444	Ave		0.7814				5.1		20.0			
Ethyl acetate	0.2486 0.2617	0.2387	0.2365	0.2342	0.2521	Ave		0.2453				4.4		20.0			
Propionitrile	0.0469 0.0445	0.0403	0.0447	0.0425	0.0461	Ave		0.0442				5.5		20.0			
Methacrylonitrile	0.1570 0.1694	0.1572	0.1676	0.1646	0.1746	Ave		0.1651				4.2		20.0			
Tert-amyl methyl ether	0.7511 0.7758	0.7308	0.8170	0.7879	0.8422	Ave		0.7841				5.2		20.0			
n-Butanol	0.0087 0.0110	0.0081	0.0098	0.0099	0.0108	Ave		0.0097				11.8		20.0			
Ethyl acrylate	0.2312 0.3208	0.2368	0.2637	0.2766	0.2933	Ave		0.2704				12.6		20.0			
Methyl methacrylate	0.1707 0.2179	0.1807	0.1922	0.1928	0.2071	Ave		0.1935				8.8		20.0			
2-Nitropropane	0.0545 0.0683	0.0583	0.0542	0.0565	0.0630	Ave		0.0591				9.3		20.0			
n-Butyl acetate	0.4593 0.5145	0.4506	0.4562	0.4618	0.5026	Ave		0.4742				5.7		20.0			
1-Chlorohexane	0.4814 0.4652	0.4068	0.4265	0.4314	0.4625	Ave		0.4456				6.4		20.0			
Cyclohexanone	0.0217 0.0183	0.0197	0.0190	0.0186	0.0199	Ave		0.0195				6.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 16:07 Calibration End Date: 07/13/2018 17:58 Calibration ID: 45934

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Pentachloroethane	0.3161 0.4065	0.3367	0.3792	0.3731	0.2848	Ave		0.3494				12.9		20.0			
1,2,3-Trimethylbenzene	2.2961 2.4899	2.2807	2.5613	2.4482	2.6968	Ave		2.4622				6.5		20.0			
Benzyl chloride	0.9490 1.4641	0.9911	1.2258	1.2673	1.4484	Ave		1.2243				17.9		20.0			
1,3,5-Trichlorobenzene	1.0896 1.1918	1.0594	1.2607	1.1809	1.3138	Ave		1.1827				8.2		20.0			
2-Methylnaphthalene	+++++ 2.0162	1.4361	1.9498	1.9270	2.1658	Ave		1.8990				14.5		20.0			
1-Chloro-1-fluoroethane TIC	0.2501 0.2740	0.2896	0.3101	0.2824	0.3093	Ave		0.2859				7.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 16:07 Calibration End Date: 07/13/2018 17:58 Calibration ID: 45934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-336107/18	U1900614.d
Level 2	STDA9 240-336107/19	U1900615.d
Level 3	STDA9 240-336107/20	U1900616.d
Level 4	STDA9 240-336107/21	U1900617.d
Level 5	STDA9 240-336107/22	U1900618.d
Level 6	STDA9 240-336107/23	U1900619.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acetonitrile	FB	Ave	11090 1556607	19520	199990	391776	804548	5.00 800	10.0	100	200	400
Diisopropyl ether	FB	Ave	5340 903789	10229	108959	220648	463264	0.500 80.0	1.00	10.0	20.0	40.0
2-Chloro-1,3-butadiene	FB	Ave	8497 1670747	17385	199848	410876	842365	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl tert-butyl ether	FB	Ave	18021 2971957	34489	370128	730526	1567191	0.500 80.0	1.00	10.0	20.0	40.0
Ethyl acetate	FB	Ave	11754 2035920	22323	214928	446820	935768	1.00 160	2.00	20.0	40.0	80.0
Propionitrile	FB	Ave	11089 1730489	18835	203124	405288	855672	5.00 800	10.0	100	200	400
Methacrylonitrile	FB	Ave	37117 6587187	73504	761817	1570260	3240719	5.00 800	10.0	100	200	400
Tert-amyl methyl ether	FB	Ave	17755 3017575	34174	371287	751545	1563027	0.500 80.0	1.00	10.0	20.0	40.0
n-Butanol	FB	Ave	5142 1067667	9437	111120	235650	500898	12.5 2000	25.0	250	500	1000
Ethyl acrylate	FB	Ave	5464 1247753	11073	119832	263864	544337	0.500 80.0	1.00	10.0	20.0	40.0
Methyl methacrylate	FB	Ave	8069 1695152	16899	174682	367729	768588	1.00 160	2.00	20.0	40.0	80.0
2-Nitropropane	FB	Ave	2577 531261	5450	49265	107724	233786	1.00 160	2.00	20.0	40.0	80.0
n-Butyl acetate	CBNZ d5	Ave	7615 1519513	14856	146490	316965	685319	0.500 80.0	1.00	10.0	20.0	40.0
1-Chlorohexane	CBNZ d5	Ave	7980 1374065	13410	136956	296142	630653	0.500 80.0	1.00	10.0	20.0	40.0
Cyclohexanone	CBNZ d5	Ave	3592 540577	6504	61130	127792	270819	5.00 800	10.0	100	200	400
Pentachloroethane	DCBd 4	Ave	6916 1520373	14643	160383	332210	505184	1.00 160	2.00	20.0	40.0	80.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 336107

SDG No.:

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2018 16:07 Calibration End Date: 07/13/2018 17:58 Calibration ID: 45934

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd 4	Ave	25122 4656212	49601	541704	1089961	2391914	0.500 80.0	1.00	10.0	20.0	40.0
Benzyl chloride	DCBd 4	Ave	10383 2738015	21555	259255	564234	1284610	0.500 80.0	1.00	10.0	20.0	40.0
1,3,5-Trichlorobenzene	DCBd 4	Ave	11922 2228724	23040	266632	525751	1165260	0.500 80.0	1.00	10.0	20.0	40.0
2-Methylnaphthalene	DCBd 4	Ave	+++++ 7540928	62462	824741	1715833	3841946	+++++ 160	2.00	20.0	40.0	80.0
1-Chloro-1-fluoroethane TIC	FB	Ave	5913 1065679	13544	140914	269410	574051	0.500 80.0	1.00	10.0	20.0	40.0

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-336107/15 Calibration Date: 07/13/2018 15:00

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900611.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3672	0.3650	0.1000	0.0199	0.0200	-0.6	30.0
Chloromethane	Ave	0.3504	0.3608	0.1000	0.0206	0.0200	3.0	30.0
Butadiene	Ave	0.3228	0.3228		0.0200	0.0200	-0.0	30.0
Vinyl chloride	Ave	0.3360	0.3668	0.1000	0.0218	0.0200	9.2	30.0
Bromomethane	Ave	0.2355	0.2424	0.0500	0.0206	0.0200	2.9	30.0
Chloroethane	Ave	0.1950	0.2082	0.0500	0.0214	0.0200	6.8	30.0
Dichlorofluoromethane	Ave	0.4630	0.5159		0.0223	0.0200	11.4	30.0
Trichlorofluoromethane	Ave	0.4334	0.4815	0.1000	0.0222	0.0200	11.1	30.0
Ethyl ether	Ave	0.2011	0.2189		0.0218	0.0200	8.9	30.0
Acrolein	Ave	0.0529	0.0297		0.0561	0.100	-43.9	50.0
1,1-Dichloroethene	Ave	0.3754	0.4176	0.1000	0.0222	0.0200	11.2	30.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2373	0.2707	0.0500	0.0228	0.0200	14.1	30.0
Acetone	Lin1		0.1014	0.0100	0.0431	0.0400	7.6	50.0
Iodomethane	Ave	0.4533	0.5079		0.0224	0.0200	12.0	30.0
Carbon disulfide	Ave	0.7676	0.8555	0.1000	0.0223	0.0200	11.4	30.0
3-Chloro-1-propene	Ave	0.4071	0.4195		0.0206	0.0200	3.0	30.0
Methyl acetate	Ave	0.2190	0.2245	0.1000	0.0410	0.0400	2.5	30.0
Methylene Chloride	Ave	0.3284	0.3299	0.1000	0.0201	0.0200	0.5	50.0
tert-Butyl alcohol	Ave	0.0387	0.0445		0.230	0.200	15.0	50.0
Acrylonitrile	Ave	0.1037	0.1151		0.222	0.200	11.0	30.0
trans-1,2-Dichloroethene	Ave	0.3630	0.4018	0.1000	0.0221	0.0200	10.7	30.0
Methyl tert-butyl ether	Ave	0.7355	0.7759	0.1000	0.0211	0.0200	5.5	30.0
Hexane	Ave	0.3214	0.3555		0.0221	0.0200	10.6	30.0
1,1-Dichloroethane	Ave	0.4437	0.4681	0.2000	0.0211	0.0200	5.5	30.0
Vinyl acetate	Ave	0.3619	0.4367		0.0241	0.0200	20.7	50.0
cis-1,2-Dichloroethene	Ave	0.3023	0.3150	0.1000	0.0208	0.0200	4.2	30.0
2,2-Dichloropropane	Ave	0.3155	0.3330		0.0211	0.0200	5.6	30.0
2-Butanone (MEK)	Ave	0.0352	0.0373	0.0100	0.0425	0.0400	6.2	30.0
Bromochloromethane	Ave	0.2065	0.2184		0.0212	0.0200	5.8	30.0
Tetrahydrofuran	Ave	0.0883	0.0939		0.0425	0.0400	6.3	30.0
Chloroform	Ave	0.4538	0.4779	0.2000	0.0211	0.0200	5.3	30.0
1,1,1-Trichloroethane	Ave	0.4065	0.4386	0.1000	0.0216	0.0200	7.9	30.0
Cyclohexane	Ave	0.3700	0.4183	0.1000	0.0226	0.0200	13.0	30.0
1,1-Dichloropropene	Ave	0.3521	0.3666		0.0208	0.0200	4.1	30.0
Carbon tetrachloride	Ave	0.3599	0.3830	0.1000	0.0213	0.0200	6.4	30.0
Isobutyl alcohol	Ave	0.0109	0.0120		0.551	0.500	10.1	30.0
Benzene	Ave	0.9836	1.003	0.5000	0.0204	0.0200	2.0	30.0
1,2-Dichloroethane	Ave	0.3259	0.3329	0.1000	0.0204	0.0200	2.2	30.0
n-Heptane	Lin1		0.2052		0.0201	0.0200	0.3	30.0
Trichloroethene	Ave	0.2999	0.3058	0.1500	0.0204	0.0200	2.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-336107/15 Calibration Date: 07/13/2018 15:00

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900611.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4389	0.4789	0.1000	0.0218	0.0200	9.1	30.0
1,2-Dichloropropane	Ave	0.2161	0.2306	0.1000	0.0213	0.0200	6.7	30.0
Dibromomethane	Ave	0.1979	0.2031		0.0205	0.0200	2.6	30.0
1,4-Dioxane	Lin1		0.0037		0.467	0.400	16.6	50.0
Bromodichloromethane	Ave	0.3126	0.3237	0.1500	0.0207	0.0200	3.6	30.0
2-Chloroethyl vinyl ether	Ave	0.1338	0.1352		0.0202	0.0200	1.0	30.0
cis-1,3-Dichloropropene	Ave	0.3367	0.3533	0.1500	0.0210	0.0200	4.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2541	0.2688	0.0500	0.0423	0.0400	5.8	30.0
Toluene	Ave	1.369	1.384	0.4000	0.0202	0.0200	1.1	30.0
trans-1,3-Dichloropropene	Ave	0.4016	0.4056	0.1000	0.0202	0.0200	1.0	30.0
Ethyl methacrylate	Ave	0.3723	0.3783		0.0203	0.0200	1.6	30.0
1,1,2-Trichloroethane	Ave	0.2630	0.2755	0.1000	0.0209	0.0200	4.7	30.0
Tetrachloroethene	Ave	0.4065	0.4165	0.1500	0.0205	0.0200	2.5	30.0
1,3-Dichloropropane	Ave	0.4401	0.4458		0.0203	0.0200	1.3	30.0
2-Hexanone	Ave	0.2193	0.2353	0.0500	0.0429	0.0400	7.3	30.0
Chlorodibromomethane	Ave	0.3221	0.3397		0.0211	0.0200	5.5	30.0
1,2-Dibromoethane	Ave	0.2824	0.2928		0.0207	0.0200	3.7	30.0
Chlorobenzene	Ave	0.8761	0.9054	0.3000	0.0207	0.0200	3.3	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3439	0.3670		0.0213	0.0200	6.7	30.0
Ethylbenzene	Ave	0.4966	0.5008		0.0202	0.0200	0.8	30.0
m-Xylene & p-Xylene	Ave	0.5964	0.6185		0.0207	0.0200	3.7	30.0
o-Xylene	Ave	0.6021	0.6329		0.0210	0.0200	5.1	30.0
Styrene	Ave	0.9471	0.9689	0.3000	0.0205	0.0200	2.3	30.0
Bromoform	Ave	0.2419	0.2577	0.1000	0.0213	0.0200	6.5	30.0
Isopropylbenzene	Ave	1.629	1.748	0.1000	0.0215	0.0200	7.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6777	0.7183	0.3000	0.0212	0.0200	6.0	30.0
Bromobenzene	Ave	0.6523	0.6664		0.0204	0.0200	2.2	30.0
1,2,3-Trichloropropane	Ave	0.2333	0.2418		0.0207	0.0200	3.6	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1716	0.1795		0.0209	0.0200	4.6	30.0
N-Propylbenzene	Ave	0.7397	0.7524		0.0203	0.0200	1.7	30.0
2-Chlorotoluene	Ave	0.6462	0.6409		0.0198	0.0200	-0.8	30.0
1,3,5-Trimethylbenzene	Ave	2.197	2.274		0.0207	0.0200	3.5	30.0
4-Chlorotoluene	Ave	0.6306	0.6481		0.0206	0.0200	2.8	30.0
tert-Butylbenzene	Ave	2.064	2.148		0.0208	0.0200	4.1	30.0
1,2,4-Trimethylbenzene	Ave	2.275	2.352		0.0207	0.0200	3.4	30.0
sec-Butylbenzene	Ave	2.945	3.045		0.0207	0.0200	3.4	30.0
1,3-Dichlorobenzene	Ave	1.353	1.386	0.6000	0.0205	0.0200	2.5	30.0
4-Isopropyltoluene	Ave	2.540	2.694		0.0212	0.0200	6.1	30.0
1,4-Dichlorobenzene	Ave	1.374	1.402	0.5000	0.0204	0.0200	2.0	30.0
n-Butylbenzene	Ave	2.264	2.378		0.0210	0.0200	5.1	30.0
1,2-Dichlorobenzene	Ave	1.332	1.386	0.4000	0.0208	0.0200	4.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-336107/15 Calibration Date: 07/13/2018 15:00

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900611.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2236	0.2388	0.0500	0.0214	0.0200	6.8	50.0
1,2,4-Trichlorobenzene	Ave	1.045	1.091	0.2000	0.0209	0.0200	4.5	50.0
Hexachlorobutadiene	Ave	0.5158	0.5609		0.0217	0.0200	8.7	30.0
Naphthalene	Ave	2.795	3.056		0.0219	0.0200	9.3	50.0
1,2,3-Trichlorobenzene	Ave	0.9903	1.066		0.0215	0.0200	7.7	30.0
Dibromofluoromethane (Surr)	Ave	0.2654	0.2840		0.0214	0.0200	7.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2842	0.3062		0.0215	0.0200	7.7	30.0
Toluene-d8 (Surr)	Ave	1.210	1.271		0.0210	0.0200	5.1	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4448	0.4837		0.0217	0.0200	8.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-336107/24 Calibration Date: 07/13/2018 18:20

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900620.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2654	0.2784		0.0210	0.0200	4.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2842	0.2994		0.0211	0.0200	5.3	30.0
Toluene-d8 (Surr)	Ave	1.210	1.256		0.0208	0.0200	3.8	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4448	0.4716		0.0212	0.0200	6.0	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-336107/24 Calibration Date: 07/13/2018 18:20

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 16:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 17:58

Lab File ID: U1900620.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0429	0.0404		0.189	0.200	-5.7	30.0
Diisopropyl ether	Ave	0.2329	0.2397		0.0206	0.0200	2.9	30.0
2-Chloro-1,3-butadiene	Ave	0.4142	0.4139		0.0200	0.0200	-0.0	30.0
Ethyl tert-butyl ether	Ave	0.7814	0.7799		0.0200	0.0200	-0.2	30.0
Ethyl acetate	Ave	0.2453	0.2374		0.0387	0.0400	-3.2	50.0
Propionitrile	Ave	0.0442	0.0442		0.200	0.200	-0.0	30.0
Methacrylonitrile	Ave	0.1651	0.1643		0.199	0.200	-0.5	30.0
Tert-amyl methyl ether	Ave	0.7841	0.7854		0.0200	0.0200	0.2	30.0
n-Butanol	Ave	0.0097	0.0103		0.530	0.500	5.9	30.0
Ethyl acrylate	Ave	0.2704	0.2782		0.0206	0.0200	2.9	30.0
Methyl methacrylate	Ave	0.1935	0.1919		0.0397	0.0400	-0.9	30.0
2-Nitropropane	Ave	0.0591	0.0578		0.0391	0.0400	-2.2	30.0
n-Butyl acetate	Ave	0.4742	0.4582		0.0193	0.0200	-3.4	30.0
1-Chlorohexane	Ave	0.4456	0.4366		0.0196	0.0200	-2.0	30.0
Cyclohexanone	Ave	0.0195	0.0211		0.216	0.200	7.8	30.0
Pentachloroethane	Ave	0.3494	0.3141		0.0360	0.0400	-10.1	30.0
1,2,3-Trimethylbenzene	Ave	2.462	2.541		0.0206	0.0200	3.2	30.0
Benzyl chloride	Ave	1.224	1.219		0.0199	0.0200	-0.5	30.0
1,3,5-Trichlorobenzene	Ave	1.183	1.267		0.0214	0.0200	7.1	30.0
2-Methylnaphthalene	Ave	1.899	1.968		0.0415	0.0400	3.6	30.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: bfb029.d BFB Injection Date: 07/15/2018

Instrument ID: A3UX19 BFB Injection Time: 11:11

Analysis Batch No.: 336272

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	50.0 - 120.00 % of mass 95	92.3	
175	5.0 - 9.0 % of mass 174	7.1	(7.7) 1
176	95.0 - 101.0 % of mass 174	90.4	(97.9) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-336272/4	U1900626.d	07/15/2018	11:34
	CCVIS 240-336272/5	U1900627.d	07/15/2018	11:56
	LCS 240-336272/6	U1900628.d	07/15/2018	12:18
	MB 240-336272/9	U1900631.d	07/15/2018	13:25
TB-070918	240-98264-1	U1900639.d	07/15/2018	16:23
MSA-MW-18I-070918	240-98264-2	U1900640.d	07/15/2018	16:45
MSA-MW-29D-070918	240-98264-3	U1900641.d	07/15/2018	17:07

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336272/4 Calibration Date: 07/15/2018 11:34

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 16:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 17:58

Lab File ID: U1900626.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0429	0.0375		0.175	0.200	-12.4	20.0
Diisopropyl ether	Ave	0.2329	0.2262		0.0194	0.0200	-2.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4142	0.4028		0.0194	0.0200	-2.8	20.0
Ethyl tert-butyl ether	Ave	0.7814	0.7488		0.0192	0.0200	-4.2	20.0
Ethyl acetate	Ave	0.2453	0.2501		0.0408	0.0400	2.0	50.0
Propionitrile	Ave	0.0442	0.0423		0.192	0.200	-4.2	20.0
Methacrylonitrile	Ave	0.1651	0.1649		0.200	0.200	-0.0	20.0
Tert-amyl methyl ether	Ave	0.7841	0.7556		0.0193	0.0200	-3.6	20.0
n-Butanol	Ave	0.0097	0.0101		0.519	0.500	3.8	20.0
Ethyl acrylate	Ave	0.2704	0.3081		0.0228	0.0200	14.0	20.0
Methyl methacrylate	Ave	0.1935	0.2104		0.0435	0.0400	8.7	20.0
2-Nitropropane	Ave	0.0591	0.0629		0.0426	0.0400	6.4	20.0
n-Butyl acetate	Ave	0.4742	0.4703		0.0198	0.0200	-0.8	20.0
1-Chlorohexane	Ave	0.4456	0.4419		0.0198	0.0200	-0.8	20.0
Cyclohexanone	Ave	0.0195	0.0172		0.176	0.200	-11.9	20.0
Pentachloroethane	Ave	0.3494	0.4298		0.0492	0.0400	23.0*	20.0
1,2,3-Trimethylbenzene	Ave	2.462	2.493		0.0202	0.0200	1.2	20.0
Benzyl chloride	Ave	1.224	1.367		0.0223	0.0200	11.7	20.0
1,3,5-Trichlorobenzene	Ave	1.183	1.214		0.0205	0.0200	2.6	20.0
2-Methylnaphthalene	Ave	1.899	1.892		0.0399	0.0400	-0.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336272/5 Calibration Date: 07/15/2018 11:56

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900627.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3672	0.3558	0.1000	0.0194	0.0200	-3.1	20.0
Chloromethane	Ave	0.3504	0.3439	0.1000	0.0196	0.0200	-1.8	20.0
Butadiene	Ave	0.3228	0.3092		0.0192	0.0200	-4.2	20.0
Vinyl chloride	Ave	0.3360	0.3295	0.1000	0.0196	0.0200	-1.9	20.0
Bromomethane	Ave	0.2355	0.2274	0.0500	0.0193	0.0200	-3.4	20.0
Chloroethane	Ave	0.1950	0.1975	0.0500	0.0203	0.0200	1.3	20.0
Dichlorofluoromethane	Ave	0.4630	0.4510		0.0195	0.0200	-2.6	20.0
Trichlorofluoromethane	Ave	0.4334	0.4184	0.1000	0.0193	0.0200	-3.5	20.0
Ethyl ether	Ave	0.2011	0.1931		0.0192	0.0200	-4.0	20.0
Acrolein	Ave	0.0529	0.0514		0.0971	0.100	-2.9	50.0
1,1-Dichloroethene	Ave	0.3754	0.3691	0.1000	0.0197	0.0200	-1.7	20.0
1,1,2-Trichlorotrifluoroethane	Ave	0.2373	0.2426	0.0500	0.0204	0.0200	2.2	20.0
Acetone	Lin1		0.0858	0.0100	0.0362	0.0400	-9.4	50.0
Iodomethane	Ave	0.4533	0.4570		0.0202	0.0200	0.8	20.0
Carbon disulfide	Ave	0.7676	0.7482	0.1000	0.0195	0.0200	-2.5	20.0
3-Chloro-1-propene	Ave	0.4071	0.3927		0.0193	0.0200	-3.6	20.0
Methyl acetate	Ave	0.2190	0.2098	0.1000	0.0383	0.0400	-4.2	20.0
Methylene Chloride	Ave	0.3284	0.3042	0.1000	0.0185	0.0200	-7.4	50.0
tert-Butyl alcohol	Ave	0.0387	0.0389		0.201	0.200	0.5	50.0
Acrylonitrile	Ave	0.1037	0.1028		0.198	0.200	-0.8	20.0
Methyl tert-butyl ether	Ave	0.7355	0.7298	0.1000	0.0198	0.0200	-0.8	20.0
trans-1,2-Dichloroethene	Ave	0.3630	0.3641	0.1000	0.0201	0.0200	0.3	20.0
Hexane	Ave	0.3214	0.3385		0.0211	0.0200	5.3	20.0
1,1-Dichloroethane	Ave	0.4437	0.4378	0.2000	0.0197	0.0200	-1.3	20.0
Vinyl acetate	Ave	0.3619	0.3611		0.0200	0.0200	-0.2	50.0
cis-1,2-Dichloroethene	Ave	0.3023	0.2979	0.1000	0.0197	0.0200	-1.5	20.0
2,2-Dichloropropane	Ave	0.3155	0.3203		0.0203	0.0200	1.5	20.0
2-Butanone (MEK)	Ave	0.0352	0.0346	0.0100	0.0394	0.0400	-1.5	20.0
Bromochloromethane	Ave	0.2065	0.2024		0.0196	0.0200	-2.0	20.0
Tetrahydrofuran	Ave	0.0883	0.0872		0.0395	0.0400	-1.2	20.0
Chloroform	Ave	0.4538	0.4403	0.2000	0.0194	0.0200	-3.0	20.0
1,1,1-Trichloroethane	Ave	0.4065	0.4067	0.1000	0.0200	0.0200	0.0	20.0
Cyclohexane	Ave	0.3700	0.3863	0.1000	0.0209	0.0200	4.4	20.0
1,1-Dichloropropene	Ave	0.3521	0.3486		0.0198	0.0200	-1.0	20.0
Carbon tetrachloride	Ave	0.3599	0.3662	0.1000	0.0204	0.0200	1.8	20.0
Isobutyl alcohol	Ave	0.0109	0.0106		0.488	0.500	-2.4	20.0
1,2-Dichloroethane	Ave	0.3259	0.3144	0.1000	0.0193	0.0200	-3.5	20.0
Benzene	Ave	0.9836	0.9748	0.5000	0.0198	0.0200	-0.9	20.0
n-Heptane	Lin1		0.2123		0.0209	0.0200	4.3	20.0
Trichloroethene	Ave	0.2999	0.2962	0.1500	0.0198	0.0200	-1.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336272/5 Calibration Date: 07/15/2018 11:56

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900627.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4389	0.4646	0.1000	0.0212	0.0200	5.9	20.0
1,2-Dichloropropane	Ave	0.2161	0.2259	0.1000	0.0209	0.0200	4.5	20.0
Dibromomethane	Ave	0.1979	0.1951		0.0197	0.0200	-1.4	20.0
1,4-Dioxane	Lin1		0.0030		0.372	0.400	-6.9	50.0
Bromodichloromethane	Ave	0.3126	0.3124	0.1500	0.0200	0.0200	-0.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1338	0.1431		0.0428	0.0400	7.0	20.0
cis-1,3-Dichloropropene	Ave	0.3367	0.3489	0.1500	0.0207	0.0200	3.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2541	0.2609	0.0500	0.0411	0.0400	2.6	20.0
Toluene	Ave	1.369	1.341	0.4000	0.0196	0.0200	-2.0	20.0
trans-1,3-Dichloropropene	Ave	0.4016	0.4029	0.1000	0.0201	0.0200	0.3	20.0
Ethyl methacrylate	Ave	0.3723	0.3877		0.0208	0.0200	4.1	20.0
1,1,2-Trichloroethane	Ave	0.2630	0.2694	0.1000	0.0205	0.0200	2.4	20.0
Tetrachloroethene	Ave	0.4065	0.3947	0.1500	0.0194	0.0200	-2.9	20.0
1,3-Dichloropropane	Ave	0.4401	0.4500		0.0204	0.0200	2.2	20.0
2-Hexanone	Ave	0.2193	0.2308	0.0500	0.0421	0.0400	5.2	20.0
Chlorodibromomethane	Ave	0.3221	0.3272		0.0203	0.0200	1.6	20.0
1,2-Dibromoethane	Ave	0.2824	0.2815		0.0199	0.0200	-0.3	20.0
Chlorobenzene	Ave	0.8761	0.8853	0.3000	0.0202	0.0200	1.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3439	0.3389		0.0197	0.0200	-1.5	20.0
Ethylbenzene	Ave	0.4966	0.4939		0.0199	0.0200	-0.6	20.0
m-Xylene & p-Xylene	Ave	0.5964	0.6015		0.0202	0.0200	0.8	20.0
o-Xylene	Ave	0.6021	0.6072		0.0202	0.0200	0.8	20.0
Styrene	Ave	0.9471	0.9605	0.3000	0.0203	0.0200	1.4	20.0
Bromoform	Ave	0.2419	0.2394	0.1000	0.0198	0.0200	-1.0	20.0
Isopropylbenzene	Ave	1.629	1.648	0.1000	0.0202	0.0200	1.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6777	0.6962	0.3000	0.0205	0.0200	2.7	20.0
Bromobenzene	Ave	0.6523	0.6670		0.0205	0.0200	2.3	20.0
1,2,3-Trichloropropane	Ave	0.2333	0.2333		0.0200	0.0200	-0.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1716	0.1744		0.0203	0.0200	1.6	20.0
N-Propylbenzene	Ave	0.7397	0.7515		0.0203	0.0200	1.6	20.0
2-Chlorotoluene	Ave	0.6462	0.6368		0.0197	0.0200	-1.5	20.0
1,3,5-Trimethylbenzene	Ave	2.197	2.255		0.0205	0.0200	2.6	20.0
4-Chlorotoluene	Ave	0.6306	0.6467		0.0205	0.0200	2.6	20.0
tert-Butylbenzene	Ave	2.064	2.112		0.0205	0.0200	2.3	20.0
1,2,4-Trimethylbenzene	Ave	2.275	2.316		0.0204	0.0200	1.8	20.0
sec-Butylbenzene	Ave	2.945	2.962		0.0201	0.0200	0.6	20.0
1,3-Dichlorobenzene	Ave	1.353	1.346	0.6000	0.0199	0.0200	-0.5	20.0
4-Isopropyltoluene	Ave	2.540	2.640		0.0208	0.0200	4.0	20.0
1,4-Dichlorobenzene	Ave	1.374	1.352	0.5000	0.0197	0.0200	-1.6	20.0
n-Butylbenzene	Ave	2.264	2.313		0.0204	0.0200	2.2	20.0
1,2-Dichlorobenzene	Ave	1.332	1.313	0.4000	0.0197	0.0200	-1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 240-336272/5 Calibration Date: 07/15/2018 11:56

Instrument ID: A3UX19 Calib Start Date: 07/13/2018 12:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 07/13/2018 14:38

Lab File ID: U1900627.d Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.2236	0.2147	0.0500	0.0192	0.0200	-4.0	50.0
1,2,4-Trichlorobenzene	Ave	1.045	1.041	0.2000	0.0199	0.0200	-0.3	50.0
Hexachlorobutadiene	Ave	0.5158	0.5165		0.0200	0.0200	0.1	20.0
Naphthalene	Ave	2.795	2.820		0.0202	0.0200	0.9	50.0
1,2,3-Trichlorobenzene	Ave	0.9903	0.9931		0.0201	0.0200	0.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2654	0.2774		0.0209	0.0200	4.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2842	0.2974		0.0209	0.0200	4.6	20.0
Toluene-d8 (Surr)	Ave	1.210	1.266		0.0209	0.0200	4.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4448	0.4813		0.0216	0.0200	8.2	20.0

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD8260 240-331857/4 Date Analyzed: 06/15/2018 11:04

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ2258A.D Heated Purge: (Y/N) N

Calibration ID: 45557

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		951416	5.04	792592	7.70	364561	9.94
UPPER LIMIT		1902832	5.54	1585184	8.20	729122	10.44
LOWER LIMIT		475708	4.54	396296	7.20	182281	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-331857/14		869521	5.04	748559	7.70	353729	9.94
ICV 240-331857/15		908696	5.04	782942	7.70	363555	9.94
CCVIS 240-337077/2		683737	5.04	564717	7.70	267730	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 240-337077/2 Date Analyzed: 07/19/2018 10:48

Instrument ID: A3UX11 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXJ3104.D Heated Purge: (Y/N) N

Calibration ID: 45563

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		683737	5.04	564717	7.70	267730	9.94
UPPER LIMIT		1367474	5.54	1129434	8.20	535460	10.44
LOWER LIMIT		341869	4.54	282359	7.20	133865	9.44
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-337077/4		639747	5.04	533481	7.70	267648	9.94
CCV 240-337077/3		622092	5.04	535930	7.70	242525	9.94
MB 240-337077/6		572245	5.04	496384	7.70	227177	9.94
240-98352-1	TB-071018	581753	5.04	497408	7.70	237657	9.94
240-98352-2	DMW-5S-071018	582475	5.04	501673	7.70	226675	9.94
240-98352-2 MS	DMW-5S-071018 MS	618374	5.04	525591	7.70	256909	9.94
240-98352-2 MSD	DMW-5S-071018 MSD	615639	5.04	532351	7.70	264361	9.94
240-98352-3	DMW-5I-071018	601595	5.04	508391	7.70	232058	9.94
240-98352-4	MSA-MW-38S-071018	585981	5.04	500324	7.70	232849	9.94
240-98320-1	MSA-MW-18S-071018	579168	5.04	495187	7.70	227039	9.94

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: ICIS 240-335057/11 Date Analyzed: 07/06/2018 19:47

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12454.D Heated Purge: (Y/N) N

Calibration ID: 45857

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1152543	5.81	934783	8.50	458867	10.74
UPPER LIMIT		2305086	6.31	1869566	9.00	917734	11.24
LOWER LIMIT		576272	5.31	467392	8.00	229434	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335057/15		1003046	5.81	812159	8.50	405679	10.74
ICV 240-335057/24		1124203	5.81	914711	8.50	449289	10.74
CCVIS 240-335864/4		1101728	5.81	913629	8.50	459117	10.74
CCVIS 240-336057/4		1148677	5.81	959626	8.50	476814	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 240-335864/4 Date Analyzed: 07/12/2018 09:25

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12591.D Heated Purge: (Y/N) N

Calibration ID: 45861

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1101728	5.81	913629	8.50	459117	10.74
UPPER LIMIT		2203456	6.31	1827258	9.00	918234	11.24
LOWER LIMIT		550864	5.31	456815	8.00	229559	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-335864/5		1107382	5.81	937730	8.50	460474	10.74
CCV 240-335864/6		1109393	5.81			449491	10.74
MB 240-335864/9		1058984	5.81	878909	8.50	433836	10.74
240-98038-1	TB-070218	1087970	5.81	911772	8.50	461866	10.74
240-98038-2	DMW-16D-070218	1066361	5.81	882381	8.50	438031	10.74
240-98038-3	DMW-16I-070218	1071123	5.81	888623	8.50	443625	10.74
240-98038-4	DMW-16S-070218	1096525	5.81	907158	8.50	456874	10.74
240-98038-5	MSA-MW-53S-070218	1090286	5.81	908721	8.50	451715	10.74
240-98038-6	MSA-MW-53I-070218	1029689	5.81	865319	8.50	427188	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 240-336057/4 Date Analyzed: 07/13/2018 09:29

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM12620.D Heated Purge: (Y/N) N

Calibration ID: 45861

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1148677	5.81	959626	8.50	476814	10.74
UPPER LIMIT		2297354	6.31	1919252	9.00	953628	11.24
LOWER LIMIT		574339	5.31	479813	8.00	238407	10.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-336057/5		1126000	5.81	946762	8.50	479338	10.74
CCV 240-336057/6		1039357	5.81	854280	8.50	423202	10.74
MB 240-336057/9		1076810	5.81	903026	8.50	446104	10.74
240-98038-7	MSA-MW-39S-070218	1110968	5.81	914226	8.50	462955	10.74
240-98038-8	MSA-MW-43S-070218	1075919	5.81	897332	8.50	452573	10.74
240-98135-1	TB-070518	1071552	5.81	871734	8.50	422492	10.74
240-98135-2	DMW-17S-070518	1103643	5.81	916343	8.50	455047	10.74
240-98135-3	DMW-17I-070518	1095141	5.81	917492	8.50	442122	10.74
240-98135-3 MS	DMW-17I-070518 MS	1093764	5.81	915033	8.50	449447	10.74
240-98135-3 MSD	DMW-17I-070518 MSD	1129011	5.81	919355	8.50	463653	10.74

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: ICIS 240-336107/11 Date Analyzed: 07/13/2018 13:32

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900607.d Heated Purge: (Y/N) N

Calibration ID: 45930

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		934396	5.65	678576	8.50	431825	10.88
UPPER LIMIT		1868792	6.15	1357152	9.00	863650	11.38
LOWER LIMIT		467198	5.15	339288	8.00	215913	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-336107/15		962750	5.65	696088	8.50	449155	10.88
ICV 240-336107/24		948611	5.65	690206	8.50	446532	10.88
CCVIS 240-336272/5		957719	5.65	728358	8.50	447252	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 240-336272/5 Date Analyzed: 07/15/2018 11:56

Instrument ID: A3UX19 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): U1900627.d Heated Purge: (Y/N) N

Calibration ID: 45934

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		957719	5.65	728358	8.50	447252	10.88
UPPER LIMIT		1915438	6.15	1456716	9.00	894504	11.38
LOWER LIMIT		478860	5.15	364179	8.00	223626	10.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-336272/6		979893	5.65	755068	8.50	447359	10.88
MB 240-336272/9		1002378	5.65	767896	8.50	458648	10.88
240-98264-1	TB-070918	1008763	5.65	760710	8.50	445246	10.88
240-98264-2	MSA-MW-18I-070918	977339	5.65	729192	8.50	418610	10.88
240-98264-3	MSA-MW-29D-070918	973836	5.65	735860	8.50	431852	10.88

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX11 Start Date: 06/15/2018 09:50

Analysis Batch Number: 331857 End Date: 06/15/2018 18:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-331857/1		06/15/2018 09:50	1	BFB615.D	DB-624 0.18(mm)
STD8260 240-331857/2 IC		06/15/2018 10:18	1	UXJ2256A.D	DB-624 0.18(mm)
STD8260 240-331857/3 IC		06/15/2018 10:41	1	UXJ2257A.D	DB-624 0.18(mm)
STD8260 240-331857/4 ICIS		06/15/2018 11:04	1	UXJ2258A.D	DB-624 0.18(mm)
STD8260 240-331857/5 IC		06/15/2018 11:27	1	UXJ2259A.D	DB-624 0.18(mm)
STD8260 240-331857/6 IC		06/15/2018 11:49	1	UXJ2260A.D	DB-624 0.18(mm)
STD8260 240-331857/7 IC		06/15/2018 12:12	1	UXJ2261A.D	DB-624 0.18(mm)
ICV 240-331857/14		06/15/2018 12:35	1	UXJ2262A.D	DB-624 0.18(mm)
STD6 240-331857/8 IC		06/15/2018 12:58	1	UXJ2263A.D	DB-624 0.18(mm)
STD5 240-331857/9 IC		06/15/2018 13:20	1	UXJ2264A.D	DB-624 0.18(mm)
STD4 240-331857/10 IC		06/15/2018 13:43	1	UXJ2265A.D	DB-624 0.18(mm)
STD3 240-331857/11 IC		06/15/2018 14:06	1	UXJ2266A.D	DB-624 0.18(mm)
STD2 240-331857/12 IC		06/15/2018 14:29	1	UXJ2267A.D	DB-624 0.18(mm)
STD1 240-331857/13 IC		06/15/2018 14:51	1	UXJ2268A.D	DB-624 0.18(mm)
ICV 240-331857/15		06/15/2018 15:14	1	UXJ2269A.D	DB-624 0.18(mm)
STD 240-331857/16 IC		06/15/2018 15:37	1		DB-624 0.18(mm)
STD 240-331857/17 IC		06/15/2018 16:00	1		DB-624 0.18(mm)
STD 240-331857/18 IC		06/15/2018 16:22	1		DB-624 0.18(mm)
STD 240-331857/19 IC		06/15/2018 16:45	1		DB-624 0.18(mm)
STD 240-331857/20 IC		06/15/2018 17:08	1		DB-624 0.18(mm)
STD 240-331857/21 IC		06/15/2018 17:31	1		DB-624 0.18(mm)
MRL 240-331857/22 MDLV		06/15/2018 17:54	1		DB-624 0.18(mm)
MRL 240-331857/23 MDLV		06/15/2018 18:16	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/06/2018 17:27

Analysis Batch Number: 335057 End Date: 07/07/2018 02:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-335057/1		07/06/2018 17:27	1	BFB5679.D	DB-624 0.18(mm)
STD8260 240-335057/8 IC		07/06/2018 18:36	1	UXM12451.D	DB-624 0.18(mm)
STD8260 240-335057/9 IC		07/06/2018 19:00	1	UXM12452.D	DB-624 0.18(mm)
STD8260 240-335057/10 IC		07/06/2018 19:23	1	UXM12453.D	DB-624 0.18(mm)
ICIS 240-335057/11		07/06/2018 19:47	1	UXM12454.D	DB-624 0.18(mm)
STD8260 240-335057/12 IC		07/06/2018 20:10	1	UXM12455.D	DB-624 0.18(mm)
STD8260 240-335057/13 IC		07/06/2018 20:34	1	UXM12456.D	DB-624 0.18(mm)
STD8260 240-335057/14 IC		07/06/2018 20:58	1	UXM12457.D	DB-624 0.18(mm)
ICV 240-335057/15		07/06/2018 21:52	1	UXM12458.D	DB-624 0.18(mm)
MRL 240-335057/16 MDLV		07/06/2018 22:16	1		DB-624 0.18(mm)
MDLV 240-335057/17		07/06/2018 22:40	1		DB-624 0.18(mm)
STDA9 240-335057/18 IC		07/06/2018 23:04	1	UXM12461.D	DB-624 0.18(mm)
STDA9 240-335057/19 IC		07/06/2018 23:27	1	UXM12462.D	DB-624 0.18(mm)
STDA9 240-335057/20 IC		07/06/2018 23:51	1	UXM12463.D	DB-624 0.18(mm)
STDA9 240-335057/21 IC		07/07/2018 00:15	1	UXM12464.D	DB-624 0.18(mm)
STDA9 240-335057/22 IC		07/07/2018 00:39	1	UXM12465.D	DB-624 0.18(mm)
STDA9 240-335057/23 IC		07/07/2018 01:02	1	UXM12466.D	DB-624 0.18(mm)
ICV 240-335057/24		07/07/2018 01:26	1	UXM12467.D	DB-624 0.18(mm)
MRL 240-335057/25 MDLV		07/07/2018 01:49	1		DB-624 0.18(mm)
ZZZZZ		07/07/2018 02:13	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/12/2018 09:00

Analysis Batch Number: 335864 End Date: 07/12/2018 20:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-335864/1		07/12/2018 09:00	1	BFB5686.D	DB-624 0.18(mm)
CCVIS 240-335864/4		07/12/2018 09:25	1	UXM12591.D	DB-624 0.18(mm)
LCS 240-335864/5		07/12/2018 10:01	1	UXM12592.D	DB-624 0.18(mm)
CCV 240-335864/6		07/12/2018 10:24	1	UXM12593.D	DB-624 0.18(mm)
MRL 240-335864/7 MDLV		07/12/2018 10:48	1		DB-624 0.18(mm)
MRL 240-335864/8 MDLV		07/12/2018 11:12	1		DB-624 0.18(mm)
MB 240-335864/9		07/12/2018 11:35	1	UXM12596.D	DB-624 0.18(mm)
ZZZZZ		07/12/2018 12:22	100		DB-624 0.18(mm)
ZZZZZ		07/12/2018 12:46	100		DB-624 0.18(mm)
ZZZZZ		07/12/2018 13:10	1		DB-624 0.18(mm)
ZZZZZ		07/12/2018 13:33	100		DB-624 0.18(mm)
ZZZZZ		07/12/2018 13:57	100		DB-624 0.18(mm)
ZZZZZ		07/12/2018 14:44	1		DB-624 0.18(mm)
ZZZZZ		07/12/2018 15:08	1		DB-624 0.18(mm)
ZZZZZ		07/12/2018 15:32	1		DB-624 0.18(mm)
ZZZZZ		07/12/2018 15:56	20		DB-624 0.18(mm)
ZZZZZ		07/12/2018 16:20	250		DB-624 0.18(mm)
ZZZZZ		07/12/2018 16:44	12.5		DB-624 0.18(mm)
ZZZZZ		07/12/2018 17:07	25		DB-624 0.18(mm)
ZZZZZ		07/12/2018 17:31	100		DB-624 0.18(mm)
ZZZZZ		07/12/2018 17:55	50		DB-624 0.18(mm)
240-98038-1		07/12/2018 18:19	1	UXM12612.D	DB-624 0.18(mm)
240-98038-2		07/12/2018 18:42	1	UXM12613.D	DB-624 0.18(mm)
240-98038-3		07/12/2018 19:06	40	UXM12614.D	DB-624 0.18(mm)
240-98038-4		07/12/2018 19:30	1	UXM12615.D	DB-624 0.18(mm)
240-98038-5		07/12/2018 19:54	1	UXM12616.D	DB-624 0.18(mm)
240-98038-6		07/12/2018 20:17	625	UXM12617.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX16 Start Date: 07/13/2018 09:01

Analysis Batch Number: 336057 End Date: 07/13/2018 20:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-336057/1		07/13/2018 09:01	1	BFB5687.D	DB-624 0.18(mm)
CCVIS 240-336057/4		07/13/2018 09:29	1	UXM12620.D	DB-624 0.18(mm)
LCS 240-336057/5		07/13/2018 09:52	1	UXM12621.D	DB-624 0.18(mm)
CCV 240-336057/6		07/13/2018 10:58	1	UXM12622.D	DB-624 0.18(mm)
MRL 240-336057/7 MDLV		07/13/2018 11:22	1		DB-624 0.18(mm)
MRL 240-336057/8 MDLV		07/13/2018 11:45	1		DB-624 0.18(mm)
MB 240-336057/9		07/13/2018 12:10	1	UXM12625.D	DB-624 0.18(mm)
ZZZZZ		07/13/2018 12:49	4		DB-624 0.18(mm)
ZZZZZ		07/13/2018 13:12	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 13:37	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 14:00	1		DB-624 0.18(mm)
240-98038-7		07/13/2018 14:24	1	UXM12630.D	DB-624 0.18(mm)
240-98038-8		07/13/2018 14:48	1	UXM12631.D	DB-624 0.18(mm)
ZZZZZ		07/13/2018 15:11	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 15:35	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 15:59	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 16:23	1		DB-624 0.18(mm)
240-98135-1		07/13/2018 16:47	1	UXM12636.D	DB-624 0.18(mm)
240-98135-2		07/13/2018 17:10	1	UXM12637.D	DB-624 0.18(mm)
240-98135-3		07/13/2018 17:34	25	UXM12638.D	DB-624 0.18(mm)
240-98135-3 MS		07/13/2018 17:58	25	UXM12639.D	DB-624 0.18(mm)
240-98135-3 MSD		07/13/2018 18:22	25	UXM12640.D	DB-624 0.18(mm)
ZZZZZ		07/13/2018 19:09	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 19:33	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 19:56	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 20:20	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/13/2018 11:39

Analysis Batch Number: 336107 End Date: 07/13/2018 19:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-336107/2		07/13/2018 11:39	1	bfb028.d	DB-624 0.18(mm)
STD8260 240-336107/8 IC		07/13/2018 12:25	1	U1900604.d	DB-624 0.18(mm)
STD8260 240-336107/9 IC		07/13/2018 12:47	1	U1900605.d	DB-624 0.18(mm)
STD8260 240-336107/10 IC		07/13/2018 13:10	1	U1900606.d	DB-624 0.18(mm)
ICIS 240-336107/11		07/13/2018 13:32	1	U1900607.d	DB-624 0.18(mm)
STD8260 240-336107/12 IC		07/13/2018 13:53	1	U1900608.d	DB-624 0.18(mm)
STD8260 240-336107/13 IC		07/13/2018 14:16	1	U1900609.d	DB-624 0.18(mm)
STD8260 240-336107/14 IC		07/13/2018 14:38	1	U1900610.d	DB-624 0.18(mm)
ICV 240-336107/15		07/13/2018 15:00	1	U1900611.d	DB-624 0.18(mm)
MRL 240-336107/16 MDLV		07/13/2018 15:22	1		DB-624 0.18(mm)
MDLV 240-336107/17		07/13/2018 15:45	1		DB-624 0.18(mm)
STDA9 240-336107/18 IC		07/13/2018 16:07	1	U1900614.d	DB-624 0.18(mm)
STDA9 240-336107/19 IC		07/13/2018 16:29	1	U1900615.d	DB-624 0.18(mm)
STDA9 240-336107/20 IC		07/13/2018 16:51	1	U1900616.d	DB-624 0.18(mm)
STDA9 240-336107/21 IC		07/13/2018 17:13	1	U1900617.d	DB-624 0.18(mm)
STDA9 240-336107/22 IC		07/13/2018 17:35	1	U1900618.d	DB-624 0.18(mm)
STDA9 240-336107/23 IC		07/13/2018 17:58	1	U1900619.d	DB-624 0.18(mm)
ICV 240-336107/24		07/13/2018 18:20	1	U1900620.d	DB-624 0.18(mm)
MRL 240-336107/25 MDLV		07/13/2018 18:42	1		DB-624 0.18(mm)
MDLV 240-336107/26		07/13/2018 19:05	1		DB-624 0.18(mm)
ZZZZZ		07/13/2018 19:27	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX19 Start Date: 07/15/2018 11:11

Analysis Batch Number: 336272 End Date: 07/15/2018 21:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-336272/1		07/15/2018 11:11	1	bfb029.d	DB-624 0.18(mm)
CCV 240-336272/4		07/15/2018 11:34	1	U1900626.d	DB-624 0.18(mm)
CCVIS 240-336272/5		07/15/2018 11:56	1	U1900627.d	DB-624 0.18(mm)
LCS 240-336272/6		07/15/2018 12:18	1	U1900628.d	DB-624 0.18(mm)
MRL 240-336272/7 MDLV		07/15/2018 12:40	1		DB-624 0.18(mm)
MRL 240-336272/8 MDLV		07/15/2018 13:03	1		DB-624 0.18(mm)
MB 240-336272/9		07/15/2018 13:25	1	U1900631.d	DB-624 0.18(mm)
ZZZZZ		07/15/2018 13:47	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 14:09	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 14:31	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 14:54	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 15:16	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 15:38	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 16:00	1		DB-624 0.18(mm)
240-98264-1		07/15/2018 16:23	1	U1900639.d	DB-624 0.18(mm)
240-98264-2		07/15/2018 16:45	1	U1900640.d	DB-624 0.18(mm)
240-98264-3		07/15/2018 17:07	1	U1900641.d	DB-624 0.18(mm)
ZZZZZ		07/15/2018 17:30	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 17:52	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 18:14	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 18:36	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 18:58	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 19:20	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 19:42	1		DB-624 0.18(mm)
ZZZZZ		07/15/2018 20:04	5		DB-624 0.18(mm)
ZZZZZ		07/15/2018 20:27	20		DB-624 0.18(mm)
ZZZZZ		07/15/2018 20:49	50		DB-624 0.18(mm)
ZZZZZ		07/15/2018 21:11	50		DB-624 0.18(mm)
ZZZZZ		07/15/2018 21:34	50		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A3UX11 Start Date: 07/19/2018 10:12

Analysis Batch Number: 337077 End Date: 07/19/2018 21:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-337077/1		07/19/2018 10:12	1	BFB719.D	DB-624 0.18(mm)
CCVIS 240-337077/2		07/19/2018 10:48	1	UXJ3104.D	DB-624 0.18(mm)
LCS 240-337077/4		07/19/2018 11:11	1	UXJ3105.D	DB-624 0.18(mm)
CCV 240-337077/3		07/19/2018 11:33	1	UXJ3106.D	DB-624 0.18(mm)
MRL 240-337077/5 MDLV		07/19/2018 11:56	1		DB-624 0.18(mm)
MB 240-337077/6		07/19/2018 13:05	1	UXJ3110.D	DB-624 0.18(mm)
240-98352-1		07/19/2018 13:50	1	UXJ3112.D	DB-624 0.18(mm)
240-98352-2		07/19/2018 14:14	1000	UXJ3113.D	DB-624 0.18(mm)
240-98352-2 MS		07/19/2018 14:37	1000	UXJ3114.D	DB-624 0.18(mm)
240-98352-2 MSD		07/19/2018 15:00	1000	UXJ3115.D	DB-624 0.18(mm)
240-98352-3		07/19/2018 15:23	2	UXJ3116.D	DB-624 0.18(mm)
240-98352-4		07/19/2018 15:46	1	UXJ3117.D	DB-624 0.18(mm)
240-98320-1		07/19/2018 16:09	1	UXJ3118.D	DB-624 0.18(mm)
ZZZZZ		07/19/2018 16:31	1		DB-624 0.18(mm)
ZZZZZ		07/19/2018 16:54	1		DB-624 0.18(mm)
ZZZZZ		07/19/2018 17:17	1		DB-624 0.18(mm)
ZZZZZ		07/19/2018 17:40	5000		DB-624 0.18(mm)
ZZZZZ		07/19/2018 18:03	200		DB-624 0.18(mm)
ZZZZZ		07/19/2018 18:25	1		DB-624 0.18(mm)
ZZZZZ		07/19/2018 18:48	10		DB-624 0.18(mm)
ZZZZZ		07/19/2018 19:11	33.33		DB-624 0.18(mm)
ZZZZZ		07/19/2018 19:34	50		DB-624 0.18(mm)
ZZZZZ		07/19/2018 19:56	50		DB-624 0.18(mm)
ZZZZZ		07/19/2018 20:19	50		DB-624 0.18(mm)
ZZZZZ		07/19/2018 20:42	33.33		DB-624 0.18(mm)
ZZZZZ		07/19/2018 21:05	50		DB-624 0.18(mm)
ZZZZZ		07/19/2018 21:28	50		DB-624 0.18(mm)
ZZZZZ		07/19/2018 21:50	20		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 331857 Batch Start Date: 06/15/18 09:50 Batch Analyst: Evans, Laura

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM50IS 00070	vm50ss_stk 00077	VMAROLISTDW 00251	vmbfb 00020
BFB 240-331857/1		8260C		5 mL	5 mL				1 uL
STD8260 240-331857/2 IC		8260C		5 mL	5 mL	1 uL	32 uL	32 uL	
STD8260 240-331857/3 IC		8260C		5 mL	5 mL	1 uL	16 uL	16 uL	
STD8260 240-331857/4 ICIS		8260C		5 mL	5 mL	1 uL	8 uL	8 uL	
STD8260 240-331857/5 IC		8260C		5 mL	5 mL	1 uL	4 uL	4 uL	
STD8260 240-331857/6 IC		8260C		5 mL	5 mL	1 uL	1.6 uL	1.6 uL	
STD8260 240-331857/7 IC		8260C		5 mL	5 mL	1 uL	0.8 uL	0.8 uL	
STD6 240-331857/8 IC		8260C		5 mL	5 mL	1 uL			
STD5 240-331857/9 IC		8260C		5 mL	5 mL	1 uL			
STD4 240-331857/10 IC		8260C		5 mL	5 mL	1 uL			
STD3 240-331857/11 IC		8260C		5 mL	5 mL	1 uL			
STD2 240-331857/12 IC		8260C		5 mL	5 mL	1 uL			
STD1 240-331857/13 IC		8260C		5 mL	5 mL	1 uL			
ICV 240-331857/14		8260C		5 mL	5 mL	1 uL	1 uL		
ICV 240-331857/15		8260C		5 mL	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00189	VMFASAW 00236	VMFASGW 00262	VMFASPW 00254	VMRA9W 00254	VMRGAS 00250
BFB 240-331857/1		8260C							
STD8260 240-331857/2 IC		8260C							32 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 331857 Batch Start Date: 06/15/18 09:50 Batch Analyst: Evans, Laura

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00189	VMFASAW 00236	VMFASGW 00262	VMFASPW 00254	VMRA9W 00254	VMRGAS 00250
STD8260 240-331857/3 IC		8260C							16 uL
STD8260 240-331857/4 ICIS		8260C							8 uL
STD8260 240-331857/5 IC		8260C							4 uL
STD8260 240-331857/6 IC		8260C							1.6 uL
STD8260 240-331857/7 IC		8260C							0.8 uL
STD6 240-331857/8 IC		8260C						32 uL	
STD5 240-331857/9 IC		8260C						16 uL	
STD4 240-331857/10 IC		8260C						8 uL	
STD3 240-331857/11 IC		8260C						4 uL	
STD2 240-331857/12 IC		8260C						1.6 uL	
STD1 240-331857/13 IC		8260C						0.8 uL	
ICV 240-331857/14		8260C			8 uL	8 uL	8 uL		
ICV 240-331857/15		8260C		8 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00287					
BFB 240-331857/1		8260C							
STD8260 240-331857/2 IC		8260C		32 uL					
STD8260 240-331857/3 IC		8260C		16 uL					
STD8260 240-331857/4 ICIS		8260C		8 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 331857 Batch Start Date: 06/15/18 09:50 Batch Analyst: Evans, Laura

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRPRIMW 00287					
STD8260 240-331857/5 IC		8260C		4 uL					
STD8260 240-331857/6 IC		8260C		1.6 uL					
STD8260 240-331857/7 IC		8260C		0.8 uL					
STD6 240-331857/8 IC		8260C							
STD5 240-331857/9 IC		8260C							
STD4 240-331857/10 IC		8260C							
STD3 240-331857/11 IC		8260C							
STD2 240-331857/12 IC		8260C							
STD1 240-331857/13 IC		8260C							
ICV 240-331857/14		8260C							
ICV 240-331857/15		8260C							

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335057 Batch Start Date: 07/06/18 17:27 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm100is_stk 00041	vm100ss_stk 00029	vm50ss_stk 00078	vmarolistdw 00254
BFB 240-335057/1		8260C		5 mL	5 mL				
STD8260 240-335057/8 IC		8260C		5 mL	5 mL	1 uL		64 uL	64 uL
STD8260 240-335057/9 IC		8260C		5 mL	5 mL	1 uL		48 uL	48 uL
STD8260 240-335057/10 IC		8260C		5 mL	5 mL	1 uL		32 uL	32 uL
ICIS 240-335057/11		8260C		5 mL	5 mL	1 uL		16 uL	16 uL
STD8260 240-335057/12 IC		8260C		5 mL	5 mL	1 uL		8 uL	8 uL
STD8260 240-335057/13 IC		8260C		5 mL	5 mL	1 uL		0.8 uL	0.8 uL
STD8260 240-335057/14 IC		8260C		5 mL	5 mL	1 uL		0.4 uL	0.4 uL
ICV 240-335057/15		8260C		5 mL	5 mL	1 uL	1 uL		
STDA9 240-335057/18 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-335057/19 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-335057/20 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-335057/21 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-335057/22 IC		8260C		5 mL	5 mL	1 uL			
STDA9 240-335057/23 IC		8260C		5 mL	5 mL	1 uL			
ICV 240-335057/24		8260C		5 mL	5 mL	1 uL	1 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335057 Batch Start Date: 07/06/18 17:27 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	VMFASA9W 00192	vmfasaw 00239	vmfasgw 00265	vmfaspw 00257	vmra9w 00257
BFB 240-335057/1		8260C		1 uL					
STD8260 240-335057/8 IC		8260C							
STD8260 240-335057/9 IC		8260C							
STD8260 240-335057/10 IC		8260C							
ICIS 240-335057/11		8260C							
STD8260 240-335057/12 IC		8260C							
STD8260 240-335057/13 IC		8260C							
STD8260 240-335057/14 IC		8260C							
ICV 240-335057/15		8260C				16 uL	16 uL	16 uL	
STDA9 240-335057/18 IC		8260C							64 uL
STDA9 240-335057/19 IC		8260C							32 uL
STDA9 240-335057/20 IC		8260C							16 uL
STDA9 240-335057/21 IC		8260C							8 uL
STDA9 240-335057/22 IC		8260C							0.8 uL
STDA9 240-335057/23 IC		8260C							0.4 uL
ICV 240-335057/24		8260C			16 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335057 Batch Start Date: 07/06/18 17:27 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00253	vmrprimw 00290				
BFB 240-335057/1		8260C							
STD8260 240-335057/8 IC		8260C		64 uL	64 uL				
STD8260 240-335057/9 IC		8260C		48 uL	48 uL				
STD8260 240-335057/10 IC		8260C		32 uL	32 uL				
ICIS 240-335057/11		8260C		16 uL	16 uL				
STD8260 240-335057/12 IC		8260C		8 uL	8 uL				
STD8260 240-335057/13 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-335057/14 IC		8260C		0.4 uL	0.4 uL				
ICV 240-335057/15		8260C							
STDA9 240-335057/18 IC		8260C							
STDA9 240-335057/19 IC		8260C							
STDA9 240-335057/20 IC		8260C							
STDA9 240-335057/21 IC		8260C							
STDA9 240-335057/22 IC		8260C							
STDA9 240-335057/23 IC		8260C							
ICV 240-335057/24		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335057 Batch Start Date: 07/06/18 17:27 Batch Analyst: Lavey, Tim

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335864 Batch Start Date: 07/12/18 09:00 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00041	vm100ss_stk 00029	vmarolistdw 00255
BFB 240-335864/1		8260C		5 mL	5 mL				
CCVIS 240-335864/4		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-335864/5		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-335864/6		8260C		5 mL	5 mL		1 uL		
MB 240-335864/9		8260C		5 mL	5 mL		1 uL	1 uL	
240-98038-A-1	TB-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-2	DMW-16D-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-3	DMW-16I-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-4	DMW-16S-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-5	MSA-MW-53S-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-6	MSA-MW-53I-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00240	vmfasgw 00266	vmfaspw 00258	vmra9w 00257	vmrgas 00253
BFB 240-335864/1		8260C		1 uL					
CCVIS 240-335864/4		8260C							16 uL
LCS 240-335864/5		8260C			16 uL	16 uL	16 uL		
CCV 240-335864/6		8260C						16 uL	
MB 240-335864/9		8260C							
240-98038-A-1	TB-070218	8260C	T						
240-98038-B-2	DMW-16D-070218	8260C	T						
240-98038-B-3	DMW-16I-070218	8260C	T						
240-98038-B-4	DMW-16S-070218	8260C	T						
240-98038-B-5	MSA-MW-53S-070218	8260C	T						
240-98038-B-6	MSA-MW-53I-070218	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335864 Batch Start Date: 07/12/18 09:00 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00291					
BFB 240-335864/1		8260C							
CCVIS 240-335864/4		8260C		16 uL					
LCS 240-335864/5		8260C							
CCV 240-335864/6		8260C							
MB 240-335864/9		8260C							
240-98038-A-1	TB-070218	8260C	T						
240-98038-B-2	DMW-16D-070218	8260C	T						
240-98038-B-3	DMW-16I-070218	8260C	T						
240-98038-B-4	DMW-16S-070218	8260C	T						
240-98038-B-5	MSA-MW-53S-070218	8260C	T						
240-98038-B-6	MSA-MW-53I-070218	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336057 Batch Start Date: 07/13/18 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm100is_stk 00041	vm100ss_stk 00029	vmarolistdw 00255
BFB 240-336057/1		8260C		5 mL	5 mL				
CCVIS 240-336057/4		8260C		5 mL	5 mL		1 uL	1 uL	16 uL
LCS 240-336057/5		8260C		5 mL	5 mL		1 uL	1 uL	
CCV 240-336057/6		8260C		5 mL	5 mL		1 uL		
MB 240-336057/9		8260C		5 mL	5 mL		1 uL	1 uL	
240-98038-B-7	MSA-MW-39S-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98038-B-8	MSA-MW-43S-070218	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98135-A-1	TB-070518	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98135-B-2	DMW-17S-070518	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98135-B-3	DMW-17I-070518	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98135-B-3 MS	DMW-17I-070518	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	
240-98135-B-3 MSD	DMW-17I-070518	8260C	T	5 mL	5 mL	<2 SU	1 uL	1 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00240	vmfasgw 00266	vmfaspw 00258	vmra9w 00258	vmrgas 00254
BFB 240-336057/1		8260C		1 uL					
CCVIS 240-336057/4		8260C							16 uL
LCS 240-336057/5		8260C			16 uL	16 uL	16 uL		
CCV 240-336057/6		8260C						16 uL	
MB 240-336057/9		8260C							
240-98038-B-7	MSA-MW-39S-070218	8260C	T						
240-98038-B-8	MSA-MW-43S-070218	8260C	T						
240-98135-A-1	TB-070518	8260C	T						
240-98135-B-2	DMW-17S-070518	8260C	T						
240-98135-B-3	DMW-17I-070518	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336057 Batch Start Date: 07/13/18 09:01 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00240	vmfasgw 00266	vmfaspw 00258	vmra9w 00258	vmrgas 00254
240-98135-B-3 MS	DMW-17I-070518	8260C	T		16 uL	16 uL	16 uL		
240-98135-B-3 MSD	DMW-17I-070518	8260C	T		16 uL	16 uL	16 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00291					
BFB 240-336057/1		8260C							
CCVIS 240-336057/4		8260C		16 uL					
LCS 240-336057/5		8260C							
CCV 240-336057/6		8260C							
MB 240-336057/9		8260C							
240-98038-B-7	MSA-MW-39S-070218	8260C	T						
240-98038-B-8	MSA-MW-43S-070218	8260C	T						
240-98135-A-1	TB-070518	8260C	T						
240-98135-B-2	DMW-17S-070518	8260C	T						
240-98135-B-3	DMW-17I-070518	8260C	T						
240-98135-B-3 MS	DMW-17I-070518	8260C	T						
240-98135-B-3 MSD	DMW-17I-070518	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336107 Batch Start Date: 07/13/18 11:39 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	vm50is_stk_A 00001	vm50ss 00328	vm50ss_stk 00077	vmarolistdw 00255
BFB 240-336107/2		8260C		5 mL	5 mL				
STD8260 240-336107/8 IC		8260C		5 mL	5 mL	2 uL	0.4 uL		0.4 uL
STD8260 240-336107/9 IC		8260C		5 mL	5 mL	2 uL	0.8 uL		0.8 uL
STD8260 240-336107/10 IC		8260C		5 mL	5 mL	2 uL	8 uL		8 uL
ICIS 240-336107/11		8260C		5 mL	5 mL	2 uL	16 uL		16 uL
STD8260 240-336107/12 IC		8260C		5 mL	5 mL	2 uL	32 uL		32 uL
STD8260 240-336107/13 IC		8260C		5 mL	5 mL	2 uL	48 uL		48 uL
STD8260 240-336107/14 IC		8260C		5 mL	5 mL	2 uL	64 uL		64 uL
ICV 240-336107/15		8260C		5 mL	5 mL	2 uL		2 uL	
STDA9 240-336107/18 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-336107/19 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-336107/20 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-336107/21 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-336107/22 IC		8260C		5 mL	5 mL	2 uL			
STDA9 240-336107/23 IC		8260C		5 mL	5 mL	2 uL			
ICV 240-336107/24		8260C		5 mL	5 mL	2 uL		2 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336107 Batch Start Date: 07/13/18 11:39 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasa9w 00193	vmfasaw 00240	vmfasgw 00266	vmfaspw 00258	vmra9w 00258
BFB 240-336107/2		8260C		1 uL					
STD8260 240-336107/8 IC		8260C							
STD8260 240-336107/9 IC		8260C							
STD8260 240-336107/10 IC		8260C							
ICIS 240-336107/11		8260C							
STD8260 240-336107/12 IC		8260C							
STD8260 240-336107/13 IC		8260C							
STD8260 240-336107/14 IC		8260C							
ICV 240-336107/15		8260C				16 uL	16 uL	16 uL	
STDA9 240-336107/18 IC		8260C							0.4 uL
STDA9 240-336107/19 IC		8260C							0.8 uL
STDA9 240-336107/20 IC		8260C							8 uL
STDA9 240-336107/21 IC		8260C							16 uL
STDA9 240-336107/22 IC		8260C							32 uL
STDA9 240-336107/23 IC		8260C							64 uL
ICV 240-336107/24		8260C			16 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336107 Batch Start Date: 07/13/18 11:39 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00254	vmrprimw 00291				
BFB 240-336107/2		8260C							
STD8260 240-336107/8 IC		8260C		0.4 uL	0.4 uL				
STD8260 240-336107/9 IC		8260C		0.8 uL	0.8 uL				
STD8260 240-336107/10 IC		8260C		8 uL	8 uL				
ICIS 240-336107/11		8260C		16 uL	16 uL				
STD8260 240-336107/12 IC		8260C		32 uL	32 uL				
STD8260 240-336107/13 IC		8260C		48 uL	48 uL				
STD8260 240-336107/14 IC		8260C		64 uL	64 uL				
ICV 240-336107/15		8260C							
STDA9 240-336107/18 IC		8260C							
STDA9 240-336107/19 IC		8260C							
STDA9 240-336107/20 IC		8260C							
STDA9 240-336107/21 IC		8260C							
STDA9 240-336107/22 IC		8260C							
STDA9 240-336107/23 IC		8260C							
ICV 240-336107/24		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336107 Batch Start Date: 07/13/18 11:39 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336272 Batch Start Date: 07/15/18 11:11 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is_stk_A 00001	vm50ss_stk 00077	vmarolistdw 00255
BFB 240-336272/1		8260C		5 mL	5 mL				
CCV 240-336272/4		8260C		5 mL	5 mL		2 uL		
CCVIS 240-336272/5		8260C		5 mL	5 mL		2 uL	2 uL	16 uL
LCS 240-336272/6		8260C		5 mL	5 mL		2 uL	2 uL	
MB 240-336272/9		8260C		5 mL	5 mL		2 uL	2 uL	
240-98264-B-1	TB-070918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-98264-B-2	MSA-MW-18I-070918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	
240-98264-B-3	MSA-MW-29D-070918	8260C	T	5 mL	5 mL	<2 SU	2 uL	2 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmbfb 00020	vmfasaw 00240	vmfasgw 00266	vmfaspw 00258	vmra9w 00258	vmrgas 00254
BFB 240-336272/1		8260C		1 uL					
CCV 240-336272/4		8260C						16 uL	
CCVIS 240-336272/5		8260C							16 uL
LCS 240-336272/6		8260C			16 uL	16 uL	16 uL		
MB 240-336272/9		8260C							
240-98264-B-1	TB-070918	8260C	T						
240-98264-B-2	MSA-MW-18I-070918	8260C	T						
240-98264-B-3	MSA-MW-29D-070918	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00291
BFB 240-336272/1		8260C		
CCV 240-336272/4		8260C		
CCVIS 240-336272/5		8260C		16 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336272 Batch Start Date: 07/15/18 11:11 Batch Analyst: Bosworth, Heather M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrprimw 00291					
LCS 240-336272/6		8260C							
MB 240-336272/9		8260C							
240-98264-B-1	TB-070918	8260C	T						
240-98264-B-2	MSA-MW-18I-070918	8260C	T						
240-98264-B-3	MSA-MW-29D-070918	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 337077 Batch Start Date: 07/19/18 10:12 Batch Analyst: Evans, Laura

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VM50IS 00068	VM50IS 00071	vm50ss_stk 00078
BFB 240-337077/1		8260C		5 mL	5 mL				
CCVIS 240-337077/2		8260C		5 mL	5 mL			1 uL	1 uL
CCV 240-337077/3		8260C		5 mL	5 mL		1 uL		
LCS 240-337077/4		8260C		5 mL	5 mL			1 uL	1 uL
MB 240-337077/6		8260C		5 mL	5 mL			1 uL	1 uL
240-98352-B-1	TB-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98352-B-2 MS	DMW-5S-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98352-B-2 MSD	DMW-5S-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98352-C-3	DMW-5I-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98352-C-4	MSA-MW-38S-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98320-B-1	MSA-MW-18S-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-98352-B-2	DMW-5S-071018	8260C	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMAROLISTDW 00256	VMBFB 00020	VMFASAW 00241	VMFASGW 00266	VMFASPW 00259	VMRA9W 00258
BFB 240-337077/1		8260C			1 uL				
CCVIS 240-337077/2		8260C		8 uL					
CCV 240-337077/3		8260C							8 uL
LCS 240-337077/4		8260C				8 uL	8 uL	8 uL	
MB 240-337077/6		8260C							
240-98352-B-1	TB-071018	8260C	T						
240-98352-B-2 MS	DMW-5S-071018	8260C	T			8 uL	8 uL	8 uL	
240-98352-B-2 MSD	DMW-5S-071018	8260C	T			8 uL	8 uL	8 uL	
240-98352-C-3	DMW-5I-071018	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 337077 Batch Start Date: 07/19/18 10:12 Batch Analyst: Evans, Laura

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMAROLISTDW 00256	VMBFB 00020	VMFASAW 00241	VMFASGW 00266	VMFASPW 00259	VMRA9W 00258
240-98352-C-4	MSA-MW-38S-071018	8260C	T						
240-98320-B-1	MSA-MW-18S-071018	8260C	T						
240-98352-B-2	DMW-5S-071018	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRGAS 00254	VMRPRIMW 00292				
BFB 240-337077/1		8260C							
CCVIS 240-337077/2		8260C		8 uL	8 uL				
CCV 240-337077/3		8260C							
LCS 240-337077/4		8260C							
MB 240-337077/6		8260C							
240-98352-B-1	TB-071018	8260C	T						
240-98352-B-2 MS	DMW-5S-071018	8260C	T						
240-98352-B-2 MSD	DMW-5S-071018	8260C	T						
240-98352-C-3	DMW-5I-071018	8260C	T						
240-98352-C-4	MSA-MW-38S-071018	8260C	T						
240-98320-B-1	MSA-MW-18S-071018	8260C	T						
240-98352-B-2	DMW-5S-071018	8260C	T						

Batch Notes	
pH Indicator ID	HC746949

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (2): CLP II ID: 0.32(mm)

Client Sample ID	Lab Sample ID	23DPA2 #
DMW-5S-071018	240-98352-2	117
	MB 680-531722/21-A	118
	LCS 680-531722/22-A	117
	LCSD 680-531722/23-A	119
DMW-5S-071018 MS	240-98352-2 MS	115
DMW-5S-071018 MSD	240-98352-2 MSD	112

	QC LIMITS
23DPA = 2,3-Dibromopropionic acid	70-130

Column to be used to flag recovery values

FORM II 552.2

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YG17007.D

Lab ID: LCS 680-531722/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	14.9	119	70-130	
Monobromoacetic acid	12.5	13.0	104	70-130	
Dichloroacetic acid	12.5	12.8	103	70-130	
Dibromoacetic acid	12.5	13.5	108	70-130	
Trichloroacetic acid	12.5	12.4	99	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YG17008.D

Lab ID: LCSD 680-531722/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Monochloroacetic acid	12.5	15.4	123	3	20	70-130	
Monobromoacetic acid	12.5	14.0	112	7	20	70-130	
Dichloroacetic acid	12.5	13.9	111	8	20	70-130	
Dibromoacetic acid	12.5	14.4	115	7	20	70-130	
Trichloroacetic acid	12.5	13.6	109	10	20	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YG17013.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Monochloroacetic acid	12.5	0.40 U	12.5	100	70-130	p
Monobromoacetic acid	12.5	0.75 U	12.2	98	70-130	
Dichloroacetic acid	12.5	2.0	16.3	115	70-130	
Dibromoacetic acid	12.5	0.38 U	13.1	105	70-130	
Trichloroacetic acid	12.5	0.38 U	14.9	119	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YG17014.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Monochloroacetic acid	12.5	11.5	92	8	20	70-130	p
Monobromoacetic acid	12.5	11.5	92	6	20	70-130	
Dichloroacetic acid	12.5	16.1	113	1	20	70-130	
Dibromoacetic acid	12.5	12.9	103	2	20	70-130	
Trichloroacetic acid	12.5	13.8	110	8	20	70-130	

Column to be used to flag recovery and RPD values

FORM III 552.2

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 680-531722/21-A

Matrix: Water Date Extracted: 07/17/2018 07:05

Lab File ID:(1) YG17006.D Lab File ID:(2) YG17006.D

Date Analyzed:(1) 07/17/2018 19:07 Date Analyzed:(2) 07/17/2018 19:07

Instrument ID:(1) CSGY Instrument ID:(2) CSGY

GC Column:(1) CLP I ID: 0.32(mm) GC Column:(2) CLP II ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 680-531722/22-A	07/17/2018 19:24	07/17/2018 19:24
	LCSD 680-531722/23-A	07/17/2018 19:40	07/17/2018 19:40
DMW-5S-071018	240-98352-2	07/17/2018 20:46	07/17/2018 20:46
DMW-5S-071018 MS	240-98352-2 MS	07/17/2018 21:02	07/17/2018 21:02
DMW-5S-071018 MSD	240-98352-2 MSD	07/17/2018 21:18	07/17/2018 21:18

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-531722/21-A

Matrix: Water | Lab File ID: YG17006.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: 552.2 | Date Extracted: 07/17/2018 07:05

Sample wt/vol: 40(mL) | Date Analyzed: 07/17/2018 19:07

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 680-531722/21-A

Matrix: Water | Lab File ID: YG17006.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: 552.2 | Date Extracted: 07/17/2018 07:05

Sample wt/vol: 40(mL) | Date Analyzed: 07/17/2018 19:07

Con. Extract Vol.: 4(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid	118		70-130

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-531863/5

Matrix: Water | Lab File ID: YG17005.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2018 18:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-531863/5

Matrix: Water | Lab File ID: YG17005.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2018 18:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-531863/17

Matrix: Water | Lab File ID: YG17017.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2018 22:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP I ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	Monochloroacetic acid	0.40	U	2.0	0.40
79-08-3	Monobromoacetic acid	0.75	U	1.0	0.75
79-43-6	Dichloroacetic acid	0.98	U	1.0	0.98
631-64-1	Dibromoacetic acid	0.38	U	1.0	0.38
76-03-9	Trichloroacetic acid	0.38	U	1.0	0.38

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Savannah | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: PIBLK 680-531863/17

Matrix: Water | Lab File ID: YG17017.D

Analysis Method: 552.2 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 07/17/2018 22:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP II ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 531863 | Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-11-8	*Monochloroacetic acid*	*0.40*	*U*	*2.0*	*0.40*
79-08-3	*Monobromoacetic acid*	*0.75*	*U*	*1.0*	*0.75*
79-43-6	*Dichloroacetic acid*	*0.98*	*U*	*1.0*	*0.98*
631-64-1	*Dibromoacetic acid*	*0.38*	*U*	*1.0*	*0.38*
76-03-9	*Trichloroacetic acid*	*0.38*	*U*	*1.0*	*0.38*

CAS NO.	SURROGATE	%REC	Q	LIMITS
600-05-5	2,3-Dibromopropionic acid			

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Sample No.: ICIS 680-531306/7 Date Analyzed: 07/12/2018 12:35

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm)

Lab File ID (Standard): YG11015.D Heated Purge: (Y/N) N

Calibration ID: 58761

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		36138724	3.90				
UPPER LIMIT		46980341	4.20				
LOWER LIMIT		25297107	3.60				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-531306/11 CCV		31388737	3.90				
CCV 680-531863/4		25495206	3.90				
PIBLK 680-531863/5		26398075	3.89				
MB 680-531722/21-A		24754979	3.90				
LCS 680-531722/22-A		27739204	3.90				
LCSD 680-531722/23-A		26876564	3.90				
240-98352-2	DMW-5S-071018	32232332	3.90				
240-98352-2 MS	DMW-5S-071018 MS	33797393	3.90				
240-98352-2 MSD	DMW-5S-071018 MSD	31625977	3.90				
CCV 680-531863/16		26847686	3.90				
PIBLK 680-531863/17		27356649	3.89				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM VIII
GC SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Sample No.: ICIS 680-531306/7 Date Analyzed: 07/12/2018 12:35

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm)

Lab File ID (Standard): YG11015.D Heated Purge: (Y/N) N

Calibration ID: 58762

		TCP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		33905608	3.75				
UPPER LIMIT		44077290	4.05				
LOWER LIMIT		23733926	3.45				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 680-531306/11 CCV		29038278	3.75				
CCV 680-531863/4		25441812	3.75				
PIBLK 680-531863/5		22776889	3.75				
MB 680-531722/21-A		23548043	3.75				
LCS 680-531722/22-A		26702510	3.75				
LCSD 680-531722/23-A		25950658	3.75				
240-98352-2	DMW-5S-071018	28156721	3.75				
240-98352-2 MS	DMW-5S-071018 MS	30100615	3.75				
240-98352-2 MSD	DMW-5S-071018 MSD	30612526	3.75				
CCV 680-531863/16		27511783	3.75				
PIBLK 680-531863/17		23572127	3.75				

TCP = 1,2,3-Trichloropropane

Area Limit = 70%-130% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 552.2

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Client Sample ID: DMW-5S-071018 Lab Sample ID: 240-98352-2

Instrument ID (1): CSGY Instrument ID (2): CSGY

Date Analyzed (1): 07/17/2018 20:46 Date Analyzed (2): 07/17/2018 20:46

GC Column (1): CLP I ID: 0.32(mm) GC Column (2): CLP II ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Dichloroacetic acid	1		3.51	3.50	3.52	3.2		45.8
	2		3.20	3.19	3.21	2.0		

FORM X 552.2

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-98038-1 Analy Batch No.: 531306

SDG No.:

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/12/2018 11:46 Calibration End Date: 07/12/2018 13:24 Calibration ID: 58761

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-531306/10	YG11018.D
Level 2	IC 680-531306/9	YG11017.D
Level 3	IC 680-531306/8	YG11016.D
Level 4	ICIS 680-531306/7	YG11015.D
Level 5	IC 680-531306/6	YG11014.D
Level 6	IC 680-531306/5	YG11013.D
Level 7	IC 680-531306/4	YG11012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.6486 0.5200	0.5572 0.4664	0.5843	0.5048	0.5087	Ave		0.5414				11.2		20.0			
Monobromoacetic acid	7.2572 6.3201	6.2974 5.8541	6.5089	5.8158	5.9113	Ave		6.2807				8.1		20.0			
Dichloroacetic acid	9.1199 7.6121	7.4005 6.9872	8.1888	7.0465	7.2302	Ave		7.6550				10.0		20.0			
Trichloroacetic acid	15.919 15.802	13.527 14.427	16.826	13.967	14.856	Ave		15.046				7.9		20.0			
Bromochloroacetic acid	17.127 16.669	15.733 15.346	17.482	15.615	15.860	Ave		16.262				5.1		20.0			
Dibromoacetic acid	19.511 19.864	18.420 18.226	20.539	18.100	18.770	Ave		19.061				4.9		20.0			
2,3-Dibromopropionic acid	6.5579 6.6835	6.2637 6.0247	6.3364	6.4111	5.9615	Ave		6.3198				4.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-98038-1 Analy Batch No.: 531306

SDG No.:

Instrument ID: CSGY GC Column: CLP I ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/12/2018 11:46 Calibration End Date: 07/12/2018 13:24 Calibration ID: 58761

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-531306/10	YG11018.D
Level 2	IC 680-531306/9	YG11017.D
Level 3	IC 680-531306/8	YG11016.D
Level 4	ICIS 680-531306/7	YG11015.D
Level 5	IC 680-531306/6	YG11014.D
Level 6	IC 680-531306/5	YG11013.D
Level 7	IC 680-531306/4	YG11012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Monochloroacetic acid	TCP	Ave	198050 4286987	425166 7840540	1089978	2280384	3253106	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Monobromoacetic acid	TCP	Ave	2216128 52107759	4805527 98419191	12142548	26271903	37801142	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dichloroacetic acid	TCP	Ave	2784944 62759956	5647296 117469742	15276461	31831550	46234824	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Trichloroacetic acid	TCP	Ave	4861107 130279655	10322264 242545607	31388405	63091571	95002716	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Bromochloroacetic acid	TCP	Ave	5230110 137432721	12005888 258003816	32613850	70540311	101422974	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dibromoacetic acid	TCP	Ave	5957983 163771897	14055964 306418408	38316310	81763603	120030474	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
2,3-Dibromopropionic acid	TCP	Ave	5006426 19286298	7169676 20257473	9456489	14480615	15248882	0.0250 0.0875	0.0375 0.100	0.0500	0.0625	0.0750

Curve Type Legend:
Ave = Average ISTD

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Savannah Job No.: 240-98038-1 Analy Batch No.: 531306

SDG No.:

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/12/2018 11:46 Calibration End Date: 07/12/2018 13:24 Calibration ID: 58762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-531306/10	YG11018.D
Level 2	IC 680-531306/9	YG11017.D
Level 3	IC 680-531306/8	YG11016.D
Level 4	ICIS 680-531306/7	YG11015.D
Level 5	IC 680-531306/6	YG11014.D
Level 6	IC 680-531306/5	YG11013.D
Level 7	IC 680-531306/4	YG11012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Monochloroacetic acid	0.4823 0.4871	0.5571 0.4616	0.5601	0.5096	0.4605	Ave		0.5026				8.3		20.0			
Monobromoacetic acid	5.9226 4.4727	5.0445 4.3740	4.9033	4.3465	4.3230	Ave		4.7695				12.2		20.0			
Dichloroacetic acid	8.8196 6.7718	7.3168 6.4438	7.8456	6.6271	6.6557	Ave		7.2115				11.9		20.0			
Trichloroacetic acid	13.988 11.111	11.535 10.462	13.955	10.020	10.137	Ave		11.601				14.7		20.0			
Bromochloroacetic acid	20.343 14.253	15.811 13.189	15.642	13.802	13.853	Ave		15.270				16.0		20.0			
Dibromoacetic acid	17.031 15.915	15.534 15.263	16.675	14.885	15.438	Ave		15.820				4.9		20.0			
2,3-Dibromopropionic acid	4.7247 4.4363	4.5241 4.2718	4.6045	4.4869	4.1679	Ave		4.4595				4.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Savannah Job No.: 240-98038-1 Analy Batch No.: 531306

SDG No.:

Instrument ID: CSGY GC Column: CLP II ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/12/2018 11:46 Calibration End Date: 07/12/2018 13:24 Calibration ID: 58762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 680-531306/10	YG11018.D
Level 2	IC 680-531306/9	YG11017.D
Level 3	IC 680-531306/8	YG11016.D
Level 4	ICIS 680-531306/7	YG11015.D
Level 5	IC 680-531306/6	YG11014.D
Level 6	IC 680-531306/5	YG11013.D
Level 7	IC 680-531306/4	YG11012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Monochloroacetic acid	TCP	Ave	134869 3974289	389575 7358147	972031	2159952	2847302	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Monobromoacetic acid	TCP	Ave	1656234 36492611	3527840 69726250	8508936	18421538	26729758	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dichloroacetic acid	TCP	Ave	2466382 55250439	5117003 102720725	13614836	28086840	41153214	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Trichloroacetic acid	TCP	Ave	3911796 90655943	8066810 166770291	24216408	42465463	62680759	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Bromochloroacetic acid	TCP	Ave	5688972 116286495	11057195 210240857	27144118	58493705	85652883	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
Dibromoacetic acid	TCP	Ave	4762700 129850023	10863469 243309359	28936804	63086259	95457648	0.0100 0.250	0.0250 0.500	0.0625	0.125	0.188
2,3-Dibromopropionic acid	TCP	Ave	3303121 12668488	4745864 13619220	6392416	9508130	10308406	0.0250 0.0875	0.0375 0.100	0.0500	0.0625	0.0750

Curve Type Legend:
Ave = Average ISTD

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID (1): PEM 680-531863/3 Instrument ID (1): CSGY

GC Column (1): CLP I ID: 0.32(mm) Date Analyzed (1): 07/17/2018 18:19

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	5.28	1.70

FORM VI
RESOLUTION CHECK SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID (2): PEM 680-531863/3 Instrument ID (2): CSGY

GC Column (2): CLP II ID: 0.32(mm) Date Analyzed (2): 07/17/2018 18:19

ANALYTE	RT	RESOLUTION (%)
Chlorodibromoacetic acid	5.22	1.70

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 680-531306/11 Calibration Date: 07/12/2018 13:40

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG11019.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5414	0.5752		0.400	0.0625	6.2	30.0
Monobromoacetic acid	Ave	6.281	6.358		0.750	0.0625	1.2	30.0
Dichloroacetic acid	Ave	7.655	7.867		0.980	0.0625	2.8	30.0
Trichloroacetic acid	Ave	15.05	14.17		0.380	0.0625	-5.8	30.0
Bromochloroacetic acid	Ave	16.26	16.96		1.00	0.0625	4.3	30.0
Dibromoacetic acid	Ave	19.06	19.84		0.380	0.0625	4.1	30.0
2,3-Dibromopropionic acid	Ave	6.320	6.579		0.0651	0.0625	4.1	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 680-531306/11 Calibration Date: 07/12/2018 13:40

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG11019.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.03	3.02	3.04
Monobromoacetic acid	3.45	3.45	3.47
Dichloroacetic acid	3.51	3.50	3.52
Trichloroacetic acid	3.99	3.98	4.00
Bromochloroacetic acid	4.04	4.03	4.05
Dibromoacetic acid	4.54	4.53	4.55
2,3-Dibromopropionic acid	5.40	5.39	5.41

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 680-531306/11 Calibration Date: 07/12/2018 13:40

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG11019.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5026	0.5770		0.400	0.0625	14.8	30.0
Monobromoacetic acid	Ave	4.770	4.826		0.750	0.0625	1.2	30.0
Dichloroacetic acid	Ave	7.211	7.613		0.980	0.0625	5.6	30.0
Trichloroacetic acid	Ave	11.60	11.84		0.380	0.0625	2.0	30.0
Bromochloroacetic acid	Ave	15.27	15.19		1.00	0.0625	-0.5	30.0
Dibromoacetic acid	Ave	15.82	16.51		0.380	0.0625	4.4	30.0
2,3-Dibromopropionic acid	Ave	4.459	4.568		0.0640	0.0625	2.4	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 680-531306/11 Calibration Date: 07/12/2018 13:40

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG11019.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.36	2.35	2.37
Monobromoacetic acid	3.16	3.15	3.17
Dichloroacetic acid	3.20	3.19	3.21
Trichloroacetic acid	3.70	3.69	3.71
Bromochloroacetic acid	3.84	3.83	3.85
Dibromoacetic acid	4.44	4.43	4.45
2,3-Dibromopropionic acid	5.28	5.27	5.29

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/4 Calibration Date: 07/17/2018 18:35

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5414	0.6159		0.400	0.125	13.8	30.0
Monobromoacetic acid	Ave	6.281	6.800		0.750	0.125	8.3	30.0
Dichloroacetic acid	Ave	7.655	8.063		0.980	0.125	5.3	30.0
Trichloroacetic acid	Ave	15.05	15.66		0.380	0.125	4.1	30.0
Bromochloroacetic acid	Ave	16.26	18.04		1.00	0.125	10.9	30.0
Dibromoacetic acid	Ave	19.06	21.28		0.380	0.125	11.7	30.0
2,3-Dibromopropionic acid	Ave	6.320	7.597		0.0751	0.0625	20.2	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/4 Calibration Date: 07/17/2018 18:35

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.02	3.01	3.03
Monobromoacetic acid	3.45	3.44	3.46
Dichloroacetic acid	3.51	3.50	3.52
Trichloroacetic acid	3.99	3.98	4.00
Bromochloroacetic acid	4.03	4.02	4.04
Dibromoacetic acid	4.54	4.53	4.55
2,3-Dibromopropionic acid	5.40	5.39	5.41

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/4 Calibration Date: 07/17/2018 18:35

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17004.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5026	0.5941		0.400	0.125	18.2	30.0
Monobromoacetic acid	Ave	4.770	4.817		0.750	0.125	1.0	30.0
Dichloroacetic acid	Ave	7.211	7.288		0.980	0.125	1.1	30.0
Trichloroacetic acid	Ave	11.60	12.08		0.380	0.125	4.1	30.0
Bromochloroacetic acid	Ave	15.27	14.32		1.00	0.125	-6.2	30.0
Dibromoacetic acid	Ave	15.82	16.78		0.380	0.125	6.1	30.0
2,3-Dibromopropionic acid	Ave	4.459	5.657		0.0793	0.0625	26.8	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/4 Calibration Date: 07/17/2018 18:35

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17004.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.35	2.34	2.36
Monobromoacetic acid	3.16	3.15	3.17
Dichloroacetic acid	3.20	3.19	3.21
Trichloroacetic acid	3.70	3.69	3.71
Bromochloroacetic acid	3.83	3.82	3.84
Dibromoacetic acid	4.44	4.43	4.45
2,3-Dibromopropionic acid	5.28	5.27	5.29

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/16 Calibration Date: 07/17/2018 21:51

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17016.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5414	0.5725		0.400	0.188	5.7	30.0
Monobromoacetic acid	Ave	6.281	6.636		0.750	0.188	5.7	30.0
Dichloroacetic acid	Ave	7.655	8.045		0.980	0.188	5.1	30.0
Trichloroacetic acid	Ave	15.05	16.25		0.380	0.188	8.0	30.0
Bromochloroacetic acid	Ave	16.26	18.03		1.00	0.188	10.9	30.0
Dibromoacetic acid	Ave	19.06	21.33		0.380	0.188	11.9	30.0
2,3-Dibromopropionic acid	Ave	6.320	7.180		0.0852	0.0750	13.6	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/16 Calibration Date: 07/17/2018 21:51

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP I ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	3.02	3.01	3.03
Monobromoacetic acid	3.45	3.44	3.46
Dichloroacetic acid	3.51	3.50	3.52
Trichloroacetic acid	3.99	3.98	4.00
Bromochloroacetic acid	4.03	4.02	4.04
Dibromoacetic acid	4.54	4.53	4.55
2,3-Dibromopropionic acid	5.40	5.39	5.41

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/16 Calibration Date: 07/17/2018 21:51

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17016.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Monochloroacetic acid	Ave	0.5026	0.5508		0.400	0.188	9.6	30.0
Monobromoacetic acid	Ave	4.770	4.693		0.750	0.188	-1.6	30.0
Dichloroacetic acid	Ave	7.211	7.009		0.980	0.188	-2.8	30.0
Trichloroacetic acid	Ave	11.60	12.41		0.380	0.188	7.0	30.0
Bromochloroacetic acid	Ave	15.27	13.95		1.00	0.188	-8.7	30.0
Dibromoacetic acid	Ave	15.82	16.57		0.380	0.188	4.7	30.0
2,3-Dibromopropionic acid	Ave	4.459	5.132		0.0863	0.0750	15.1	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 680-531863/16 Calibration Date: 07/17/2018 21:51

Instrument ID: CSGY Calib Start Date: 07/12/2018 11:46

GC Column: CLP II ID: 0.32(mm) Calib End Date: 07/12/2018 13:24

Lab File ID: YG17016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Monochloroacetic acid	2.35	2.34	2.36
Monobromoacetic acid	3.16	3.15	3.17
Dichloroacetic acid	3.20	3.19	3.21
Trichloroacetic acid	3.70	3.69	3.71
Bromochloroacetic acid	3.83	3.82	3.84
Dibromoacetic acid	4.44	4.43	4.45
2,3-Dibromopropionic acid	5.28	5.27	5.29

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Instrument ID: CSGY Start Date: 07/12/2018 11:30

Analysis Batch Number: 531306 End Date: 07/12/2018 22:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 680-531306/3		07/12/2018 11:30	1	YG11011.D	CLP I 0.32(mm)
PEM 680-531306/3		07/12/2018 11:30	1	YG11011.D	CLP II 0.32(mm)
IC 680-531306/4		07/12/2018 11:46	1	YG11012.D	CLP I 0.32(mm)
IC 680-531306/4		07/12/2018 11:46	1	YG11012.D	CLP II 0.32(mm)
IC 680-531306/5		07/12/2018 12:03	1	YG11013.D	CLP I 0.32(mm)
IC 680-531306/5		07/12/2018 12:03	1	YG11013.D	CLP II 0.32(mm)
IC 680-531306/6		07/12/2018 12:19	1	YG11014.D	CLP I 0.32(mm)
IC 680-531306/6		07/12/2018 12:19	1	YG11014.D	CLP II 0.32(mm)
ICIS 680-531306/7		07/12/2018 12:35	1	YG11015.D	CLP I 0.32(mm)
ICIS 680-531306/7		07/12/2018 12:35	1	YG11015.D	CLP II 0.32(mm)
IC 680-531306/8		07/12/2018 12:51	1	YG11016.D	CLP I 0.32(mm)
IC 680-531306/8		07/12/2018 12:51	1	YG11016.D	CLP II 0.32(mm)
IC 680-531306/9		07/12/2018 13:08	1	YG11017.D	CLP I 0.32(mm)
IC 680-531306/9		07/12/2018 13:08	1	YG11017.D	CLP II 0.32(mm)
IC 680-531306/10		07/12/2018 13:24	1	YG11018.D	CLP I 0.32(mm)
IC 680-531306/10		07/12/2018 13:24	1	YG11018.D	CLP II 0.32(mm)
ICV 680-531306/11 CCV		07/12/2018 13:40	1	YG11019.D	CLP I 0.32(mm)
ICV 680-531306/11 CCV		07/12/2018 13:40	1	YG11019.D	CLP II 0.32(mm)
PIBLK 680-531306/12		07/12/2018 13:57	1		CLP I 0.32(mm)
PIBLK 680-531306/12		07/12/2018 13:57	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 14:13	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 14:13	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 14:29	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 14:29	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 14:46	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 14:46	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 15:02	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 15:02	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 15:18	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 15:18	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 15:35	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 15:35	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 15:51	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 15:51	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 16:07	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 16:07	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 16:24	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 16:24	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 16:40	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 16:40	1		CLP II 0.32(mm)
CCV 680-531306/23		07/12/2018 16:56	1		CLP I 0.32(mm)
CCV 680-531306/23		07/12/2018 16:56	1		CLP II 0.32(mm)
PIBLK 680-531306/24		07/12/2018 17:13	1		CLP I 0.32(mm)
PIBLK 680-531306/24		07/12/2018 17:13	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Instrument ID: CSGY Start Date: 07/12/2018 11:30

Analysis Batch Number: 531306 End Date: 07/12/2018 22:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/12/2018 17:29	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 17:29	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 17:45	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 17:45	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 18:02	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 18:02	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 18:18	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 18:18	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 18:34	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 18:34	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 18:51	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 18:51	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 19:07	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 19:07	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 19:23	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 19:23	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 19:40	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 19:40	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 19:56	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 19:56	1		CLP II 0.32(mm)
CCV 680-531306/35		07/12/2018 20:12	1		CLP I 0.32(mm)
CCV 680-531306/35		07/12/2018 20:12	1		CLP II 0.32(mm)
PIBLK 680-531306/36		07/12/2018 20:29	1		CLP I 0.32(mm)
PIBLK 680-531306/36		07/12/2018 20:29	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 20:45	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 20:45	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 21:01	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 21:01	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 21:18	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 21:18	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 21:34	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 21:34	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 21:50	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 21:50	1		CLP II 0.32(mm)
ZZZZZ		07/12/2018 22:07	1		CLP I 0.32(mm)
ZZZZZ		07/12/2018 22:07	1		CLP II 0.32(mm)
CCV 680-531306/43		07/12/2018 22:23	1		CLP I 0.32(mm)
CCV 680-531306/43		07/12/2018 22:23	1		CLP II 0.32(mm)
PIBLK 680-531306/44		07/12/2018 22:39	1		CLP I 0.32(mm)
PIBLK 680-531306/44		07/12/2018 22:39	1		CLP II 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Instrument ID: CSGY Start Date: 07/17/2018 18:19

Analysis Batch Number: 531863 End Date: 07/18/2018 03:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 680-531863/3		07/17/2018 18:19	1	YG17003.D	CLP I 0.32(mm)
PEM 680-531863/3		07/17/2018 18:19	1	YG17003.D	CLP II 0.32(mm)
CCV 680-531863/4		07/17/2018 18:35	1	YG17004.D	CLP I 0.32(mm)
CCV 680-531863/4		07/17/2018 18:35	1	YG17004.D	CLP II 0.32(mm)
PIBLK 680-531863/5		07/17/2018 18:51	1	YG17005.D	CLP I 0.32(mm)
PIBLK 680-531863/5		07/17/2018 18:51	1	YG17005.D	CLP II 0.32(mm)
MB 680-531722/21-A		07/17/2018 19:07	1	YG17006.D	CLP I 0.32(mm)
MB 680-531722/21-A		07/17/2018 19:07	1	YG17006.D	CLP II 0.32(mm)
LCS 680-531722/22-A		07/17/2018 19:24	1	YG17007.D	CLP I 0.32(mm)
LCS 680-531722/22-A		07/17/2018 19:24	1	YG17007.D	CLP II 0.32(mm)
LCSD 680-531722/23-A		07/17/2018 19:40	1	YG17008.D	CLP I 0.32(mm)
LCSD 680-531722/23-A		07/17/2018 19:40	1	YG17008.D	CLP II 0.32(mm)
ZZZZZ		07/17/2018 19:57	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 19:57	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 20:13	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 20:13	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 20:29	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 20:29	1		CLP II 0.32(mm)
240-98352-2		07/17/2018 20:46	1	YG17012.D	CLP I 0.32(mm)
240-98352-2		07/17/2018 20:46	1	YG17012.D	CLP II 0.32(mm)
240-98352-2 MS		07/17/2018 21:02	1	YG17013.D	CLP I 0.32(mm)
240-98352-2 MS		07/17/2018 21:02	1	YG17013.D	CLP II 0.32(mm)
240-98352-2 MSD		07/17/2018 21:18	1	YG17014.D	CLP I 0.32(mm)
240-98352-2 MSD		07/17/2018 21:18	1	YG17014.D	CLP II 0.32(mm)
ZZZZZ		07/17/2018 21:35	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 21:35	1		CLP II 0.32(mm)
CCV 680-531863/16		07/17/2018 21:51	1	YG17016.D	CLP I 0.32(mm)
CCV 680-531863/16		07/17/2018 21:51	1	YG17016.D	CLP II 0.32(mm)
PIBLK 680-531863/17		07/17/2018 22:07	1	YG17017.D	CLP I 0.32(mm)
PIBLK 680-531863/17		07/17/2018 22:07	1	YG17017.D	CLP II 0.32(mm)
ZZZZZ		07/17/2018 22:24	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 22:24	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 22:40	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 22:40	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 22:56	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 22:56	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 23:13	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 23:13	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 23:29	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 23:29	1		CLP II 0.32(mm)
ZZZZZ		07/17/2018 23:45	1		CLP I 0.32(mm)
ZZZZZ		07/17/2018 23:45	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 00:02	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 00:02	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 00:18	1		CLP I 0.32(mm)

552.2

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Instrument ID: CSGY Start Date: 07/17/2018 18:19

Analysis Batch Number: 531863 End Date: 07/18/2018 03:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/18/2018 00:18	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 00:34	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 00:34	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 00:51	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 00:51	1		CLP II 0.32(mm)
CCV 680-531863/28		07/18/2018 01:07	1		CLP I 0.32(mm)
CCV 680-531863/28		07/18/2018 01:07	1		CLP II 0.32(mm)
PIBLK 680-531863/29		07/18/2018 01:23	1		CLP I 0.32(mm)
PIBLK 680-531863/29		07/18/2018 01:23	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 01:40	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 01:40	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 01:56	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 01:56	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 02:12	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 02:12	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 02:29	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 02:29	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 02:45	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 02:45	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 03:01	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 03:01	1		CLP II 0.32(mm)
ZZZZZ		07/18/2018 03:17	1		CLP I 0.32(mm)
ZZZZZ		07/18/2018 03:17	1		CLP II 0.32(mm)
CCV 680-531863/37		07/18/2018 03:34	1		CLP I 0.32(mm)
CCV 680-531863/37		07/18/2018 03:34	1		CLP II 0.32(mm)
PIBLK 680-531863/38		07/18/2018 03:50	1		CLP I 0.32(mm)
PIBLK 680-531863/38		07/18/2018 03:50	1		CLP II 0.32(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Batch Number: 531722 Batch Start Date: 07/17/18 07:05 Batch Analyst: Vasquez, Melissa A

Batch Method: 552.2 Batch End Date: 07/17/18 14:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResidualChloCheck	Initial pH	AdjustedpH	Final pH	InitialAmount	FinalAmount
240-98352-AF-2	DMW-5S-071018	552.2, 552.2	T	no	6	<0.5	<0.5	40 mL	4 mL
MB 680-531722/21		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
LCS 680-531722/22		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
LCSD 680-531722/23		552.2, 552.2		no	6	<0.5	<0.5	40 mL	4 mL
240-98352-A-2 MS	DMW-5S-071018	552.2, 552.2	T	no	6	<0.5	<0.5	40 mL	4 mL
240-98352-A-2 MSD	DMW-5S-071018	552.2, 552.2	T	no	6	<0.5	<0.5	40 mL	4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SG552LCS 00035	SG552SurDL 00058				
240-98352-AF-2	DMW-5S-071018	552.2, 552.2	T		25 uL				
MB 680-531722/21		552.2, 552.2			25 uL				
LCS 680-531722/22		552.2, 552.2		50 uL	25 uL				
LCSD 680-531722/23		552.2, 552.2		50 uL	25 uL				
240-98352-A-2 MS	DMW-5S-071018	552.2, 552.2	T	50 uL	25 uL				
240-98352-A-2 MSD	DMW-5S-071018	552.2, 552.2	T	50 uL	25 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Savannah Job No.: 240-98038-1

SDG No.:

Batch Number: 531722 Batch Start Date: 07/17/18 07:05 Batch Analyst: Vasquez, Melissa A

Batch Method: 552.2 Batch End Date: 07/17/18 14:10

Batch Notes	
10% H2SO4 in MeOH ID	5598922
Acid Used for pH Adjustment ID	5505813
Copper II Sulfate Pentahydrate ID	5621767
Final Temperature	50 Degrees C
Inital Temperature	50 Degrees C
Methylation End Time	1255
Methylation Start Time	1055
MTBE ID	5598906
Na2SO4 ID	5584277
Sodium Bicarbonate ID	5589647
pH Paper ID	5353346
Person's name who did the prep	MW
Analyst ID - Reagent Drop Witness	KC
Residual Chlorine Indicator ID	5598837
Thermometer ID	SGWB1
Temperature - Start - Uncorrected	52 Degrees C
Temperature - End - Uncorrected	52 Degrees C
Vial Lot Number	1616559
Water Bath ID	DWWB1

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS/ ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHL #
DMW-16D-070218	240-98038-2	45	43	50	52	56	74
DMW-16I-070218	240-98038-3	59	54	65	60	69	82
DMW-16S-070218	240-98038-4	53	53	63	68	72	83
MSA-MW-53S-070218	240-98038-5	47	46	57	61	68	82
MSA-MW-53I-070218	240-98038-6	64	70	78	75	83	102
MSA-MW-39S-070218	240-98038-7	66	66	66	61	78	81
MSA-MW-43S-070218	240-98038-8	60	51	62	57	73	78
DMW-17S-070518	240-98135-2	46	50	60	57	73	72
DMW-17I-070518	240-98135-3	49	53	58	53	67	81
MSA-MW-18I-070918	240-98264-2	60	60	61	62	74	78
MSA-MW-29D-070918	240-98264-3	59	56	61	62	70	77
MSA-MW-18S-071018	240-98320-1	59	52	61	58	70	73
DMW-5S-071018	240-98352-2	49	40	61	59	74	77
DMW-5I-071018	240-98352-3	55	51	61	61	71	80
MSA-MW-38S-071018	240-98352-4	66	61	69	65	79	87
	MB 240-335033/15-A	51	40	61	63	63	80
	MB 240-335201/8-A	62	53	62	70	64	80
	MB 240-335816/12-A	58	51	59	61	66	75
	LCS 240-335033/16-A	59	48	79	77	83	84
	LCS 240-335201/9-A	66	51	72	73	82	78
	LCS 240-335816/13-A	115	76	80	79	85	82
	LCSD 240-335033/17-A	61	49	78	76	83	84
DMW-17I-070518 MS	240-98135-3 MS	57	52	63	58	81	79
DMW-5S-071018 MS	240-98352-2 MS	139 X	95	75	71	82	84
DMW-17I-070518 MSD	240-98135-3 MSD	60	54	71	66	81	75
DMW-5S-071018 MSD	240-98352-2 MSD	134 X	98	76	72	79	83

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	17-120
PHL = Phenol-d5 (Surr)	15-120
NBZ = Nitrobenzene-d5 (Surr)	35-120
FBP = 2-Fluorobiphenyl (Surr)	32-120
TBP = 2,4,6-Tribromophenol (Surr)	33-120
TPHL = Terphenyl-d14 (Surr)	28-128

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80709031.D

Lab ID: LCS 240-335033/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	11.4	36	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80710005.D

Lab ID: LCS 240-335201/9-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	9.87	31	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80720018.D

Lab ID: LCS 240-335816/13-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	13.1	41	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80709032.D

Lab ID: LCSD 240-335033/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	32.0	11.5	36	1	35	23-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80711015.D

Lab ID: 240-98135-3 MS Client ID: DMW-17I-070518 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	29.6	0.36 U	9.44	32	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80718020.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	32.0	26	49.5	74	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80711016.D

Lab ID: 240-98135-3 MSD Client ID: DMW-17I-070518 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	30.8	10.2	33	8	35	10-120	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 80718021.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	29.6	49.2	79	1	35	10-120	E

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80709030.D Lab Sample ID: MB 240-335033/15-A

Matrix: Water Date Extracted: 07/06/2018 13:44

Instrument ID: A4AG2 Date Analyzed: 07/09/2018 15:11

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-335033/16-A	80709031.D	07/09/2018 15:35
	LCSD 240-335033/17-A	80709032.D	07/09/2018 16:01
DMW-16D-070218	240-98038-2	80711005.D	07/11/2018 08:06
DMW-16I-070218	240-98038-3	80711006.D	07/11/2018 08:30
MSA-MW-39S-070218	240-98038-7	80711010.D	07/11/2018 10:09
MSA-MW-43S-070218	240-98038-8	80711011.D	07/11/2018 10:34
DMW-16S-070218	240-98038-4	80711017.D	07/11/2018 13:02
MSA-MW-53S-070218	240-98038-5	80711018.D	07/11/2018 13:26
MSA-MW-53I-070218	240-98038-6	80711019.D	07/11/2018 13:52

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335033/15-A

Matrix: Water | Lab File ID: 80709030.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 07/06/2018 13:44

Sample wt/vol: 250(mL) | Date Analyzed: 07/09/2018 15:11

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335188 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	40		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-120
367-12-4	2-Fluorophenol (Surr)	51		17-120
321-60-8	2-Fluorobiphenyl (Surr)	63		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	63		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80710004.D Lab Sample ID: MB 240-335201/8-A

Matrix: Water Date Extracted: 07/09/2018 06:41

Instrument ID: A4AG2 Date Analyzed: 07/10/2018 10:44

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-335201/9-A	80710005.D	07/10/2018 11:09
DMW-17S-070518	240-98135-2	80711013.D	07/11/2018 11:23
DMW-17I-070518	240-98135-3	80711014.D	07/11/2018 11:48
DMW-17I-070518 MS	240-98135-3 MS	80711015.D	07/11/2018 12:12
DMW-17I-070518 MSD	240-98135-3 MSD	80711016.D	07/11/2018 12:37

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335201/8-A

Matrix: Water | Lab File ID: 80710004.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 07/09/2018 06:41

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 10:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335396 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		28-128
4165-62-2	Phenol-d5 (Surr)	53		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	62		35-120
367-12-4	2-Fluorophenol (Surr)	62		17-120
321-60-8	2-Fluorobiphenyl (Surr)	70		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	64		33-120

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80718007.D Lab Sample ID: MB 240-335816/12-A

Matrix: Water Date Extracted: 07/12/2018 06:32

Instrument ID: A4AG2 Date Analyzed: 07/18/2018 10:44

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MSA-MW-18S-071018	240-98320-1	80718014.D	07/18/2018 14:31
MSA-MW-18I-070918	240-98264-2	80718017.D	07/18/2018 15:45
MSA-MW-29D-070918	240-98264-3	80718018.D	07/18/2018 16:10
DMW-5S-071018	240-98352-2	80718019.D	07/18/2018 16:35
DMW-5S-071018 MS	240-98352-2 MS	80718020.D	07/18/2018 17:00
DMW-5S-071018 MSD	240-98352-2 MSD	80718021.D	07/18/2018 17:24
DMW-5I-071018	240-98352-3	80718022.D	07/18/2018 17:49
MSA-MW-38S-071018	240-98352-4	80718023.D	07/18/2018 18:13
	LCS 240-335816/13-A	80720018.D	07/20/2018 18:41

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335816/12-A

Matrix: Water | Lab File ID: 80718007.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 07/12/2018 06:32

Sample wt/vol: 250(mL) | Date Analyzed: 07/18/2018 10:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336747 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.39	U	1.0	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		28-128
4165-62-2	Phenol-d5 (Surr)	51		15-120
4165-60-0	Nitrobenzene-d5 (Surr)	59		35-120
367-12-4	2-Fluorophenol (Surr)	58		17-120
321-60-8	2-Fluorobiphenyl (Surr)	61		32-120
118-79-6	2,4,6-Tribromophenol (Surr)	66		33-120

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80709001.D DFTPP Injection Date: 07/09/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:13

Analysis Batch No.: 335188

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.9	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.1	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	52.7	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	28.7	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	10.4	
442	40.0 - 110.0% of mass 198	72.4	
443	15.0 - 24.0% of mass 442	14.1	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD9 240-335188/2	80709002.D	07/09/2018	06:31
	STD8 240-335188/3	80709003.D	07/09/2018	06:55
	STD7 240-335188/4	80709004.D	07/09/2018	07:20
	STD6 240-335188/5	80709005.D	07/09/2018	07:44
	STD5 240-335188/6	80709006.D	07/09/2018	08:09
	STD4 240-335188/7	80709007.D	07/09/2018	08:33
	STD3 240-335188/8	80709008.D	07/09/2018	08:58
	STD2 240-335188/9	80709009.D	07/09/2018	09:23
	STD1 240-335188/10	80709010.D	07/09/2018	09:47
	ICV 240-335188/11	80709011.D	07/09/2018	10:12
	MB 240-335033/15-A	80709030.D	07/09/2018	15:11
	LCS 240-335033/16-A	80709031.D	07/09/2018	15:35
	LCSD 240-335033/17-A	80709032.D	07/09/2018	16:01

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-335188/10	80709010.D
Level 2	STD2 240-335188/9	80709009.D
Level 3	STD3 240-335188/8	80709008.D
Level 4	STD4 240-335188/7	80709007.D
Level 5	STD5 240-335188/6	80709006.D
Level 6	STD6 240-335188/5	80709005.D
Level 7	STD7 240-335188/4	80709004.D
Level 8	STD8 240-335188/3	80709003.D
Level 9	STD9 240-335188/2	80709002.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.2509	0.2904 0.2594	0.2756 0.3276	0.3009 0.3262	0.2334	Ave		0.2830				12.2		20.0			
N-Nitrosodimethylamine	0.9062	0.8581 0.8849	0.8607 0.9542	0.8504 0.9481	0.8751	Ave		0.8922				4.5		20.0			
Pyridine	0.6900 0.7841	0.7758 0.7723	0.7789 1.0259	0.8282 +++++	0.7163	Ave		0.7964				12.8		20.0			
Benzaldehyde	+++++ 0.8270	1.2803 0.7867	1.1772 +++++	1.1454 +++++	0.9521	Ave		1.0281			0.0100	19.7		20.0			
Phenol	1.2277	1.6091 1.6824	1.4696 1.6515	1.3241 1.6564	1.5251	Ave		1.5182			0.8000	11.0		20.0			
Aniline	2.3759	2.2289 2.8852	2.2107 2.7243	2.1642 2.4953	2.4630	Ave		2.4434				10.5		20.0			
Bis(2-chloroethyl)ether	1.7214	1.7321 1.7195	1.7076 1.6708	1.6389 1.6244	1.7663	Ave		1.6976			0.7000	2.9		20.0			
2-Chlorophenol	1.2892	1.3414 1.5022	1.3790 1.4740	1.2897 1.4914	1.5070	Ave		1.4092			0.8000	6.8		20.0			
n-Decane	1.6100	1.6149 1.6539	1.6398 1.7612	1.6842 1.6575	1.6400	Ave		1.6577				2.9		20.0			
1,3-Dichlorobenzene	1.6659	1.6507 1.6398	1.5771 1.6871	1.6175 1.6875	1.6348	Ave		1.6451				2.2		20.0			
1,4-Dichlorobenzene	1.6894	1.6847 1.6844	1.6331 1.7125	1.6627 1.7272	1.7023	Ave		1.6870				1.7		20.0			
Benzyl alcohol	1.0448	0.3650 1.1240	0.5236 1.0599	0.7441 1.0300	1.0040	Lin1	-44.80	1.0835							0.9980		0.9900
1,2-Dichlorobenzene	1.6522	1.6614 1.6938	1.6892 1.6977	1.5810 1.6801	1.6428	Ave		1.6623				2.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 335188

SDG No.:

Instrument ID: A4AG2 GC Column: RXI-5SILMS/ ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/09/2018 06:31 Calibration End Date: 07/09/2018 09:47 Calibration ID: 45872

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-335188/10	80709010.D
Level 2	STD2 240-335188/9	80709009.D
Level 3	STD3 240-335188/8	80709008.D
Level 4	STD4 240-335188/7	80709007.D
Level 5	STD5 240-335188/6	80709006.D
Level 6	STD6 240-335188/5	80709005.D
Level 7	STD7 240-335188/4	80709004.D
Level 8	STD8 240-335188/3	80709003.D
Level 9	STD9 240-335188/2	80709002.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCBd 4	Ave	84579	4338 122610	9009 219917	19439 278716	38430	1000	50.0 1500	100 2000	200 2500	500
N-Nitrosodimethylamine	DCBd 4	Ave	305482	12818 418336	28133 640454	54940 810072	144117	1000	50.0 1500	100 2000	200 2500	500
Pyridine	DCBd 4	Ave	3970 528602	23178 730205	50918 1377167	107006 +++++	235921	20.0 2000	100 3000	200 4000	400 +++++	1000
Benzaldehyde	DCBd 4	Ave	+++++ 557561	38251 743842	76958 +++++	147993 +++++	313590	+++++ 2000	100 3000	200 +++++	400 +++++	1000
Phenol	DCBd 4	Ave	413851	24036 795342	48036 1108480	85538 1415331	251157	1000	50.0 1500	100 2000	200 2500	500
Aniline	DCBd 4	Ave	800886	33295 1364004	72260 1828532	139810 2132099	405625	1000	50.0 1500	100 2000	200 2500	500
Bis(2-chloroethyl)ether	DCBd 4	Ave	580250	25874 812881	55814 1121420	105874 1387977	290883	1000	50.0 1500	100 2000	200 2500	500
2-Chlorophenol	DCBd 4	Ave	434561	20038 710181	45073 989358	83318 1274355	248177	1000	50.0 1500	100 2000	200 2500	500
n-Decane	DCBd 4	Ave	542720	24123 781873	53599 1182087	108805 1416245	270087	1000	50.0 1500	100 2000	200 2500	500
1,3-Dichlorobenzene	DCBd 4	Ave	561569	24658 775220	51550 1132363	104495 1441849	269235	1000	50.0 1500	100 2000	200 2500	500
1,4-Dichlorobenzene	DCBd 4	Ave	569481	25165 796288	53381 1149461	107413 1475769	280353	1000	50.0 1500	100 2000	200 2500	500
Benzyl alcohol	DCBd 4	Lin1	352186	5453 531400	17116 711435	48070 880094	165338	1000	50.0 1500	100 2000	200 2500	500
1,2-Dichlorobenzene	DCBd 4	Ave	556925	24818 800762	55215 1139515	102137 1435549	270554	1000	50.0 1500	100 2000	200 2500	500
2-Methylphenol	DCBd 4	Ave	482897	17972 775819	37859 1045876	75352 1249357	225322	1000	50.0 1500	100 2000	200 2500	500

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-335188/11 Calibration Date: 07/09/2018 10:12

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80709011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2611		0.922	1.00	-7.8	30.0
N-Nitrosodimethylamine	Ave	0.8922	0.9075		1.02	1.00	1.7	30.0
Pyridine	Ave	0.7964	0.8353		2.10	2.00	4.9	30.0
Benzaldehyde	Ave	1.028	0.8564	0.0100	1.67	2.00	-16.7	30.0
Phenol	Ave	1.518	1.438	0.8000	0.947	1.00	-5.3	30.0
Aniline	Ave	2.443	2.357		0.964	1.00	-3.6	30.0
Bis(2-chloroethyl)ether	Ave	1.698	1.684	0.7000	0.992	1.00	-0.8	30.0
2-Chlorophenol	Ave	1.409	1.413	0.8000	1.00	1.00	0.3	30.0
n-Decane	Ave	1.658	1.613		0.973	1.00	-2.7	30.0
1,3-Dichlorobenzene	Ave	1.645	1.592		0.968	1.00	-3.2	30.0
1,4-Dichlorobenzene	Ave	1.687	1.674		0.992	1.00	-0.8	30.0
Benzyl alcohol	Lin1		0.9469		0.915	1.00	-8.5	30.0
1,2-Dichlorobenzene	Ave	1.662	1.616		0.972	1.00	-2.8	30.0
2-Methylphenol	Ave	1.374	1.341	0.7000	0.976	1.00	-2.4	30.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.402		0.895	1.00	-10.5	30.0
Indene	Ave	2.916	2.691		1.85	2.00	-7.7	30.0
3 & 4 Methylphenol	Ave	1.335	1.312		0.983	1.00	-1.7	30.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.211	0.5000	0.963	1.00	-3.7	30.0
Acetophenone	Ave	2.258	2.158	0.0100	0.956	1.00	-4.4	30.0
Hexachloroethane	Ave	0.6539	0.6283	0.3000	0.961	1.00	-3.9	30.0
Nitrobenzene	Ave	0.4101	0.4197	0.2000	1.02	1.00	2.3	30.0
Isophorone	Ave	0.6982	0.7280	0.4000	1.04	1.00	4.3	30.0
2,4-Dimethylphenol	Ave	0.3338	0.3470	0.2000	1.04	1.00	4.0	30.0
2-Nitrophenol	Ave	0.1917	0.1989	0.1000	1.04	1.00	3.8	30.0
Benzoic acid	Lin1		0.1524		1.74	2.00	-13.0	30.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4208	0.3000	0.982	1.00	-1.8	30.0
2,4-Dichlorophenol	Ave	0.2399	0.2508	0.2000	1.05	1.00	4.5	30.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3024		0.987	1.00	-1.3	30.0
Naphthalene	Ave	1.090	1.085	0.7000	0.995	1.00	-0.5	30.0
4-Chloroaniline	Ave	0.4913	0.5429	0.0100	1.11	1.00	10.5	30.0
2,6-Dichlorophenol	Ave	0.2680	0.2796		1.04	1.00	4.3	30.0
Hexachlorobutadiene	Ave	0.1659	0.1695	0.0100	1.02	1.00	2.2	30.0
Caprolactam	Ave	0.1049	0.1061	0.0100	2.02	2.00	1.1	30.0
4-Chloro-3-methylphenol	Ave	0.2698	0.3006	0.2000	1.11	1.00	11.4	30.0
2-Methylnaphthalene	Ave	0.7263	0.7320	0.4000	1.01	1.00	0.8	30.0
1-Methylnaphthalene	Ave	0.6832	0.6787		0.993	1.00	-0.7	30.0
Hexachlorocyclopentadiene	Ave	0.3515	0.4036	0.0500	1.15	1.00	14.8	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5709	0.0100	1.00	1.00	0.3	30.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3890	0.2000	1.07	1.00	7.3	30.0
2,4,5-Trichlorophenol	Lin1		0.3975	0.2000	0.987	1.00	-1.3	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80710001.D DFTPP Injection Date: 07/10/2018

Instrument ID: A4AG2 DFTPP Injection Time: 09:04

Analysis Batch No.: 335396

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.0	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.5	
70	Less than 2.0% of mass 69	0.2	(0.4) 1
127	25.0 - 75.0% of mass 198	53.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	29.1	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	71.5	
443	15.0 - 24.0% of mass 442	13.8	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-335396/2	80710002.D	07/10/2018	09:54
	STD6 240-335396/3	80710003.D	07/10/2018	10:19
	MB 240-335201/8-A	80710004.D	07/10/2018	10:44
	LCS 240-335201/9-A	80710005.D	07/10/2018	11:09

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Lab Sample ID: STD6 240-335396/2 | Calibration Date: 07/10/2018 09:54

Instrument ID: A4AG2 | Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 07/09/2018 09:47

Lab File ID: 80710002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2523		0.891	1.00	-10.9	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.8712		0.976	1.00	-2.4	20.0
Pyridine	Ave	0.7964	0.8016		2.01	2.00	0.7	20.0
Benzaldehyde	Ave	1.028	0.8747	0.0100	1.70	2.00	-14.9	20.0
Phenol	Ave	1.518	1.541	0.8000	1.02	1.00	1.5	20.0
Aniline	Ave	2.443	2.359		0.966	1.00	-3.4	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.781	0.7000	1.05	1.00	4.9	20.0
2-Chlorophenol	Ave	1.409	1.380	0.8000	0.979	1.00	-2.1	20.0
n-Decane	Ave	1.658	1.633		0.985	1.00	-1.5	20.0
1,3-Dichlorobenzene	Ave	1.645	1.586		0.964	1.00	-3.6	20.0
1,4-Dichlorobenzene	Ave	1.687	1.617		0.958	1.00	-4.2	20.0
Benzyl alcohol	Lin1		1.005		0.969	1.00	-3.1	20.0
1,2-Dichlorobenzene	Ave	1.662	1.565		0.941	1.00	-5.9	20.0
2-Methylphenol	Ave	1.374	1.426	0.7000	1.04	1.00	3.8	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.644		0.985	1.00	-1.5	20.0
Indene	Ave	2.916	2.855		1.96	2.00	-2.1	20.0
3 & 4 Methylphenol	Ave	1.335	1.390		1.04	1.00	4.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.245	0.5000	0.990	1.00	-1.0	20.0
Acetophenone	Ave	2.258	2.202	0.0100	0.975	1.00	-2.5	20.0
Hexachloroethane	Ave	0.6539	0.6283	0.3000	0.961	1.00	-3.9	20.0
Nitrobenzene	Ave	0.4101	0.4148	0.2000	1.01	1.00	1.1	20.0
Isophorone	Ave	0.6982	0.7127	0.4000	1.02	1.00	2.1	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3513	0.2000	1.05	1.00	5.3	20.0
2-Nitrophenol	Ave	0.1917	0.1964	0.1000	1.02	1.00	2.4	20.0
Benzoic acid	Lin1		0.2371		2.59	2.00	29.7*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4202	0.3000	0.980	1.00	-2.0	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2626	0.2000	1.09	1.00	9.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3028		0.989	1.00	-1.1	20.0
Naphthalene	Ave	1.090	1.086	0.7000	0.996	1.00	-0.4	20.0
4-Chloroaniline	Ave	0.4913	0.5595	0.0100	1.14	1.00	13.9	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2787		1.04	1.00	4.0	20.0
Hexachlorobutadiene	Ave	0.1659	0.1627	0.0100	0.981	1.00	-1.9	20.0
Caprolactam	Ave	0.1049	0.1027	0.0100	1.96	2.00	-2.1	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.2973	0.2000	1.10	1.00	10.2	20.0
2-Methylnaphthalene	Ave	0.7263	0.7252	0.4000	0.999	1.00	-0.1	20.0
1-Methylnaphthalene	Ave	0.6832	0.6752		0.988	1.00	-1.2	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3595	0.0500	1.02	1.00	2.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5624	0.0100	0.989	1.00	-1.1	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3858	0.2000	1.06	1.00	6.4	20.0
2,4,5-Trichlorophenol	Lin1		0.3967	0.2000	0.985	1.00	-1.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80711001.D DFTPP Injection Date: 07/11/2018

Instrument ID: A4AG2 DFTPP Injection Time: 06:34

Analysis Batch No.: 335590

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	50.4	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	44.5	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.6	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	27.7	
365	Greater than 0.75% of mass 198	3.3	
441	Present, but less than mass 443	9.7	
442	40.0 - 110.0% of mass 198	64.1	
443	15.0 - 24.0% of mass 442	12.6	(19.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-335590/2	80711002.D	07/11/2018	06:52
DMW-16D-070218	240-98038-2	80711005.D	07/11/2018	08:06
DMW-16I-070218	240-98038-3	80711006.D	07/11/2018	08:30
MSA-MW-39S-070218	240-98038-7	80711010.D	07/11/2018	10:09
MSA-MW-43S-070218	240-98038-8	80711011.D	07/11/2018	10:34
DMW-17S-070518	240-98135-2	80711013.D	07/11/2018	11:23
DMW-17I-070518	240-98135-3	80711014.D	07/11/2018	11:48
DMW-17I-070518 MS	240-98135-3 MS	80711015.D	07/11/2018	12:12
DMW-17I-070518 MSD	240-98135-3 MSD	80711016.D	07/11/2018	12:37
DMW-16S-070218	240-98038-4	80711017.D	07/11/2018	13:02
MSA-MW-53S-070218	240-98038-5	80711018.D	07/11/2018	13:26
MSA-MW-53I-070218	240-98038-6	80711019.D	07/11/2018	13:52

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Lab Sample ID: STD6 240-335590/2 | Calibration Date: 07/11/2018 06:52

Instrument ID: A4AG2 | Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) | Calib End Date: 07/09/2018 09:47

Lab File ID: 80711002.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2272		0.803	1.00	-19.7	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.9079		1.02	1.00	1.8	20.0
Pyridine	Ave	0.7964	0.6832		1.72	2.00	-14.2	20.0
Benzaldehyde	Ave	1.028	1.009	0.0100	1.96	2.00	-1.9	20.0
Phenol	Ave	1.518	0.9794	0.8000	0.645	1.00	-35.5*	20.0
Aniline	Ave	2.443	2.374		0.972	1.00	-2.8	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.898	0.7000	1.12	1.00	11.8	20.0
2-Chlorophenol	Ave	1.409	1.310	0.8000	0.929	1.00	-7.1	20.0
n-Decane	Ave	1.658	1.566		0.945	1.00	-5.5	20.0
1,3-Dichlorobenzene	Ave	1.645	1.576		0.958	1.00	-4.2	20.0
1,4-Dichlorobenzene	Ave	1.687	1.633		0.968	1.00	-3.2	20.0
Benzyl alcohol	Lin1		1.002		0.966	1.00	-3.4	20.0
1,2-Dichlorobenzene	Ave	1.662	1.639		0.986	1.00	-1.4	20.0
2-Methylphenol	Ave	1.374	1.132	0.7000	0.824	1.00	-17.6	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	3.071		1.14	1.00	14.4	20.0
Indene	Ave	2.916	3.172		2.18	2.00	8.8	20.0
3 & 4 Methylphenol	Ave	1.335	1.241		0.930	1.00	-7.0	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.454	0.5000	1.16	1.00	15.7	20.0
Acetophenone	Ave	2.258	2.612	0.0100	1.16	1.00	15.7	20.0
Hexachloroethane	Ave	0.6539	0.6544	0.3000	1.00	1.00	0.0	20.0
Nitrobenzene	Ave	0.4101	0.4209	0.2000	1.03	1.00	2.6	20.0
Isophorone	Ave	0.6982	0.7273	0.4000	1.04	1.00	4.2	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3648	0.2000	1.09	1.00	9.3	20.0
2-Nitrophenol	Ave	0.1917	0.2033	0.1000	1.06	1.00	6.1	20.0
Benzoic acid	Lin1		0.1940		2.16	2.00	8.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4325	0.3000	1.01	1.00	0.9	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2421	0.2000	1.01	1.00	0.9	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.2895		0.945	1.00	-5.5	20.0
Naphthalene	Ave	1.090	1.099	0.7000	1.01	1.00	0.8	20.0
4-Chloroaniline	Ave	0.4913	0.5874	0.0100	1.20	1.00	19.6	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2828		1.06	1.00	5.5	20.0
Hexachlorobutadiene	Ave	0.1659	0.1565	0.0100	0.944	1.00	-5.6	20.0
Caprolactam	Ave	0.1049	0.1062	0.0100	2.02	2.00	1.2	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.2986	0.2000	1.11	1.00	10.7	20.0
2-Methylnaphthalene	Ave	0.7263	0.7297	0.4000	1.00	1.00	0.5	20.0
1-Methylnaphthalene	Ave	0.6832	0.6855		1.00	1.00	0.3	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3643	0.0500	1.04	1.00	3.6	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5849	0.0100	1.03	1.00	2.8	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3960	0.2000	1.09	1.00	9.2	20.0
2,4,5-Trichlorophenol	Lin1		0.3865	0.2000	0.961	1.00	-3.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80718001.D DFTPP Injection Date: 07/18/2018

Instrument ID: A4AG2 DFTPP Injection Time: 08:14

Analysis Batch No.: 336747

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.6	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	43.6	
70	Less than 2.0% of mass 69	0.2	(0.5) 1
127	25.0 - 75.0% of mass 198	53.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	29.4	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	10.4	
442	40.0 - 110.0% of mass 198	70.9	
443	15.0 - 24.0% of mass 442	13.8	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-336747/2	80718002.D	07/18/2018	08:39
	STD6 240-336747/3	80718003.D	07/18/2018	09:04
	MB 240-335816/12-A	80718007.D	07/18/2018	10:44
MSA-MW-18S-071018	240-98320-1	80718014.D	07/18/2018	14:31
MSA-MW-18I-070918	240-98264-2	80718017.D	07/18/2018	15:45
MSA-MW-29D-070918	240-98264-3	80718018.D	07/18/2018	16:10
DMW-5S-071018	240-98352-2	80718019.D	07/18/2018	16:35
DMW-5S-071018 MS	240-98352-2 MS	80718020.D	07/18/2018	17:00
DMW-5S-071018 MSD	240-98352-2 MSD	80718021.D	07/18/2018	17:24
DMW-5I-071018	240-98352-3	80718022.D	07/18/2018	17:49
MSA-MW-38S-071018	240-98352-4	80718023.D	07/18/2018	18:13

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: STD6 240-336747/2 Calibration Date: 07/18/2018 08:39

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80718002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.2504		0.885	1.00	-11.5	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.8694		0.974	1.00	-2.6	20.0
Pyridine	Ave	0.7964	0.7422		1.86	2.00	-6.8	20.0
Benzaldehyde	Ave	1.028	0.9551	0.0100	1.86	2.00	-7.1	20.0
Phenol	Ave	1.518	1.289	0.8000	0.849	1.00	-15.1	20.0
Aniline	Ave	2.443	2.391		0.979	1.00	-2.1	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.850	0.7000	1.09	1.00	9.0	20.0
n-Decane	Ave	1.658	1.539		0.928	1.00	-7.2	20.0
2-Chlorophenol	Ave	1.409	1.432	0.8000	1.02	1.00	1.6	20.0
1,3-Dichlorobenzene	Ave	1.645	1.659		1.01	1.00	0.9	20.0
1,4-Dichlorobenzene	Ave	1.687	1.697		1.01	1.00	0.6	20.0
Benzyl alcohol	Lin1		1.052		1.01	1.00	1.2	20.0
1,2-Dichlorobenzene	Ave	1.662	1.647		0.991	1.00	-0.9	20.0
2-Methylphenol	Ave	1.374	1.371	0.7000	0.998	1.00	-0.2	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.624		0.978	1.00	-2.2	20.0
Indene	Ave	2.916	3.046		2.09	2.00	4.4	20.0
3 & 4 Methylphenol	Ave	1.335	1.420		1.06	1.00	6.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.327	0.5000	1.06	1.00	5.5	20.0
Acetophenone	Ave	2.258	2.343	0.0100	1.04	1.00	3.8	20.0
Hexachloroethane	Ave	0.6539	0.6526	0.3000	0.998	1.00	-0.2	20.0
Nitrobenzene	Ave	0.4101	0.4204	0.2000	1.02	1.00	2.5	20.0
Isophorone	Ave	0.6982	0.7177	0.4000	1.03	1.00	2.8	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3624	0.2000	1.09	1.00	8.6	20.0
2-Nitrophenol	Ave	0.1917	0.2037	0.1000	1.06	1.00	6.3	20.0
Benzoic acid	Lin1		0.2186		2.41	2.00	20.4*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4304	0.3000	1.00	1.00	0.4	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2657	0.2000	1.11	1.00	10.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3114		1.02	1.00	1.7	20.0
Naphthalene	Ave	1.090	1.123	0.7000	1.03	1.00	3.0	20.0
4-Chloroaniline	Ave	0.4913	0.4895	0.0100	0.996	1.00	-0.4	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2938		1.10	1.00	9.6	20.0
Hexachlorobutadiene	Ave	0.1659	0.1698	0.0100	1.02	1.00	2.4	20.0
Caprolactam	Ave	0.1049	0.1170	0.0100	2.23	2.00	11.6	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.3134	0.2000	1.16	1.00	16.2	20.0
2-Methylnaphthalene	Ave	0.7263	0.7526	0.4000	1.04	1.00	3.6	20.0
1-Methylnaphthalene	Ave	0.6832	0.7168		1.05	1.00	4.9	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3519	0.0500	1.00	1.00	0.1	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5834	0.0100	1.03	1.00	2.5	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3977	0.2000	1.10	1.00	9.7	20.0
2,4,5-Trichlorophenol	Lin1		0.4070	0.2000	1.01	1.00	1.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab File ID: 80720001.D DFTPP Injection Date: 07/20/2018

Instrument ID: A4AG2 DFTPP Injection Time: 11:41

Analysis Batch No.: 337230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.7	
68	Less than 2.0% of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	40.0	
70	Less than 2.0% of mass 69	0.2	(0.4) 1
127	25.0 - 75.0% of mass 198	51.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	30.0	
365	Greater than 0.75% of mass 198	3.9	
441	Present, but less than mass 443	11.6	
442	40.0 - 110.0% of mass 198	80.7	
443	15.0 - 24.0% of mass 442	15.2	(18.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-337230/2	80720002.D	07/20/2018	11:58
	STD6 240-337230/3	80720003.D	07/20/2018	12:27
	LCS 240-335816/13-A	80720018.D	07/20/2018	18:41

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: STD6 240-337230/2 Calibration Date: 07/20/2018 11:58

Instrument ID: A4AG2 Calib Start Date: 07/09/2018 06:31

GC Column: RXI-5SILMS/IIG ID: 0.25(mm) Calib End Date: 07/09/2018 09:47

Lab File ID: 80720002.D Conc. Units: ng/uL

No environmental samples affected.

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.2830	0.1794		0.634	1.00	-36.6*	20.0
N-Nitrosodimethylamine	Ave	0.8922	0.8649		0.969	1.00	-3.1	20.0
Pyridine	Ave	0.7964	0.6091		1.53	2.00	-23.5*	20.0
Benzaldehyde	Ave	1.028	0.9452	0.0100	1.84	2.00	-8.1	20.0
Phenol	Ave	1.518	1.407	0.8000	0.926	1.00	-7.4	20.0
Aniline	Ave	2.443	2.312		0.946	1.00	-5.4	20.0
Bis(2-chloroethyl)ether	Ave	1.698	1.849	0.7000	1.09	1.00	8.9	20.0
n-Decane	Ave	1.658	1.486		0.896	1.00	-10.4	20.0
2-Chlorophenol	Ave	1.409	1.364	0.8000	0.968	1.00	-3.2	20.0
1,3-Dichlorobenzene	Ave	1.645	1.645		1.00	1.00	0.0	20.0
1,4-Dichlorobenzene	Ave	1.687	1.712		1.01	1.00	1.5	20.0
Benzyl alcohol	Lin1		0.8696		0.844	1.00	-15.6	20.0
1,2-Dichlorobenzene	Ave	1.662	1.647		0.991	1.00	-0.9	20.0
2-Methylphenol	Ave	1.374	1.323	0.7000	0.963	1.00	-3.7	20.0
bis (2-chloroisopropyl) ether	Ave	2.684	2.415		0.900	1.00	-10.0	20.0
Indene	Ave	2.916	2.943		2.02	2.00	0.9	20.0
3 & 4 Methylphenol	Ave	1.335	1.406		1.05	1.00	5.3	20.0
N-Nitrosodi-n-propylamine	Ave	1.257	1.246	0.5000	0.991	1.00	-0.9	20.0
Acetophenone	Ave	2.258	2.253	0.0100	0.998	1.00	-0.2	20.0
Hexachloroethane	Ave	0.6539	0.6434	0.3000	0.984	1.00	-1.6	20.0
Nitrobenzene	Ave	0.4101	0.4097	0.2000	0.999	1.00	-0.1	20.0
Isophorone	Ave	0.6982	0.7106	0.4000	1.02	1.00	1.8	20.0
2,4-Dimethylphenol	Ave	0.3338	0.3479	0.2000	1.04	1.00	4.2	20.0
2-Nitrophenol	Ave	0.1917	0.2037	0.1000	1.06	1.00	6.3	20.0
Benzoic acid	Lin1		0.2503		2.73	2.00	36.4*	20.0
Bis(2-chloroethoxy)methane	Ave	0.4287	0.4201	0.3000	0.980	1.00	-2.0	20.0
2,4-Dichlorophenol	Ave	0.2399	0.2617	0.2000	1.09	1.00	9.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3063	0.3152		1.03	1.00	2.9	20.0
Naphthalene	Ave	1.090	1.108	0.7000	1.02	1.00	1.6	20.0
4-Chloroaniline	Ave	0.4913	0.4472	0.0100	0.910	1.00	-9.0	20.0
2,6-Dichlorophenol	Ave	0.2680	0.2991		1.12	1.00	11.6	20.0
Hexachlorobutadiene	Ave	0.1659	0.1735	0.0100	1.05	1.00	4.6	20.0
Caprolactam	Ave	0.1049	0.1175	0.0100	2.24	2.00	12.0	20.0
4-Chloro-3-methylphenol	Ave	0.2698	0.3156	0.2000	1.17	1.00	16.9	20.0
2-Methylnaphthalene	Ave	0.7263	0.7524	0.4000	1.04	1.00	3.6	20.0
1-Methylnaphthalene	Ave	0.6832	0.7005		1.03	1.00	2.5	20.0
Hexachlorocyclopentadiene	Ave	0.3515	0.3445	0.0500	0.980	1.00	-2.0	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5689	0.5867	0.0100	1.03	1.00	3.1	20.0
2,4,6-Trichlorophenol	Ave	0.3626	0.3969	0.2000	1.09	1.00	9.4	20.0
2,4,5-Trichlorophenol	Lin1		0.4085	0.2000	1.01	1.00	1.3	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335188/5 Date Analyzed: 07/09/2018 07:44

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80709005.D Heated Purge: (Y/N) N

Calibration ID: 45872

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		134836	6.78	633232	7.85	318081	9.35
UPPER LIMIT		269672	7.28	1266464	8.35	636162	9.85
LOWER LIMIT		67418	6.28	316616	7.35	159041	8.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335188/11		144601	6.78	623410	7.85	317839	9.35
MB 240-335033/15-A		124776	6.78	553271	7.85	296845	9.35
LCS 240-335033/16-A		113226	6.78	524549	7.85	270443	9.35
LCSD 240-335033/17-A		116470	6.78	542974	7.85	276068	9.35
STD6 240-335396/2 CCVIS		136667	6.76	605905	7.83	305136	9.33
STD6 240-335590/2 CCVIS		114901	6.76	588375	7.82	295902	9.32
STD6 240-336747/2 CCVIS		130063	6.76	607014	7.83	314781	9.33
STD6 240-337230/2 CCVIS		131373	6.76	590516	7.83	308027	9.33

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335188/5 Date Analyzed: 07/09/2018 07:44

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80709005.D Heated Purge: (Y/N) N

Calibration ID: 45872

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		523669	10.63	512436	13.62	482691	16.04
UPPER LIMIT		1047338	11.13	1024872	14.12	965382	16.54
LOWER LIMIT		261835	10.13	256218	13.12	241346	15.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-335188/11		532128	10.63	531106	13.63	498409	16.05
MB 240-335033/15-A		573210	10.63	483579	13.62	449709	16.05
LCS 240-335033/16-A		455598	10.63	455328	13.63	412506	16.05
LCSD 240-335033/17-A		464359	10.63	457653	13.63	416374	16.05
STD6 240-335396/2 CCVIS		507257	10.62	495653	13.60	459179	16.01
STD6 240-335590/2 CCVIS		497198	10.61	480977	13.59	452560	16.00
STD6 240-336747/2 CCVIS		549757	10.62	540894	13.59	512384	16.00
STD6 240-337230/2 CCVIS		567520	10.62	570188	13.59	548304	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335396/2 Date Analyzed: 07/10/2018 09:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80710002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		136667	6.76	605905	7.83	305136	9.33
UPPER LIMIT		273334	7.26	1211810	8.33	610272	9.83
LOWER LIMIT		68334	6.26	302953	7.33	152568	8.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-335396/3 CCV		125741	6.76	568160	7.83	293346	9.33
MB 240-335201/8-A		117507	6.76	579768	7.83	274096	9.33
LCS 240-335201/9-A		116300	6.76	535494	7.83	264659	9.33

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335396/2 Date Analyzed: 07/10/2018 09:54

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80710002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		507257	10.62	495653	13.60	459179	16.01
UPPER LIMIT		1014514	11.12	991306	14.10	918358	16.51
LOWER LIMIT		253629	10.12	247827	13.10	229590	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-335396/3 CCV		507640	10.62	452173	13.59	424467	16.01
MB 240-335201/8-A		538301	10.62	475732	13.59	453181	16.01
LCS 240-335201/9-A		457549	10.62	459046	13.60	410902	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335590/2 Date Analyzed: 07/11/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80711002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		114901	6.76	588375	7.82	295902	9.32
UPPER LIMIT		229802	7.26	1176750	8.32	591804	9.82
LOWER LIMIT		57451	6.26	294188	7.32	147951	8.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-98038-2	DMW-16D-070218	92072	6.76	529583	7.82	256266	9.32
240-98038-3	DMW-16I-070218	99973	6.76	517725	7.82	262245	9.32
240-98038-7	MSA-MW-39S-070218	92596	6.76	518086	7.82	282047	9.32
240-98038-8	MSA-MW-43S-070218	98131	6.76	507030	7.82	286677	9.32
240-98135-2	DMW-17S-070518	94048	6.76	551144	7.82	271596	9.32
240-98135-3	DMW-17I-070518	98677	6.76	545473	7.82	277568	9.32
240-98135-3 MS	DMW-17I-070518 MS	102822	6.76	534843	7.83	278399	9.32
240-98135-3 MSD	DMW-17I-070518 MSD	95333	6.76	540370	7.82	278262	9.32
240-98038-4	DMW-16S-070218	86818	6.76	484644	7.83	214323	9.32
240-98038-5	MSA-MW-53S-070218	84747	6.76	502308	7.83	225068	9.32
240-98038-6	MSA-MW-53I-070218	94280	6.76	558509	7.83	272069	9.32

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-335590/2 Date Analyzed: 07/11/2018 06:52

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80711002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		497198	10.61	480977	13.59	452560	16.00
UPPER LIMIT		994396	11.11	961954	14.09	905120	16.50
LOWER LIMIT		248599	10.11	240489	13.09	226280	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-98038-2	DMW-16D-070218	545245	10.61	455538	13.59	433273	15.99
240-98038-3	DMW-16I-070218	536039	10.61	453318	13.58	426120	15.99
240-98038-7	MSA-MW-39S-070218	540707	10.61	460871	13.59	449323	16.00
240-98038-8	MSA-MW-43S-070218	545719	10.61	478679	13.59	446886	16.00
240-98135-2	DMW-17S-070518	540365	10.61	459037	13.59	438665	16.00
240-98135-3	DMW-17I-070518	536421	10.61	452963	13.59	425344	16.00
240-98135-3 MS	DMW-17I-070518 MS	484515	10.61	480233	13.59	414986	16.00
240-98135-3 MSD	DMW-17I-070518 MSD	497512	10.61	486415	13.59	438822	16.00
240-98038-4	DMW-16S-070218	488988	10.61	405299	13.59	388794	16.00
240-98038-5	MSA-MW-53S-070218	499922	10.61	414213	13.59	393694	16.00
240-98038-6	MSA-MW-53I-070218	533510	10.61	453352	13.59	435034	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-336747/2 Date Analyzed: 07/18/2018 08:39

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80718002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130063	6.76	607014	7.83	314781	9.33
UPPER LIMIT		260126	7.26	1214028	8.33	629562	9.83
LOWER LIMIT		65032	6.26	303507	7.33	157391	8.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-336747/3 CCV		129011	6.76	612408	7.83	315576	9.33
MB 240-335816/12-A		131666	6.76	651319	7.83	336424	9.33
240-98320-1	MSA-MW-18S-071018	107951	6.76	529865	7.83	307629	9.33
240-98264-2	MSA-MW-18I-070918	94996	6.76	576366	7.83	319680	9.33
240-98264-3	MSA-MW-29D-070918	107999	6.76	578961	7.83	305953	9.33
240-98352-2	DMW-5S-071018	88086	6.76	516532	7.83	311867	9.33
240-98352-2 MS	DMW-5S-071018 MS	101835	6.77	577861	7.83	290410	9.33
240-98352-2 MSD	DMW-5S-071018 MSD	103028	6.77	587552	7.83	302109	9.33
240-98352-3	DMW-5I-071018	110181	6.76	649170	7.83	354771	9.33
240-98352-4	MSA-MW-38S-071018	106156	6.76	559070	7.83	286616	9.33

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-336747/2 Date Analyzed: 07/18/2018 08:39

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80718002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		549757	10.62	540894	13.59	512384	16.00
UPPER LIMIT		1099514	11.12	1081788	14.09	1024768	16.50
LOWER LIMIT		274879	10.12	270447	13.09	256192	15.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-336747/3 CCV		564708	10.62	503820	13.59	487263	16.00
MB 240-335816/12-A		686764	10.61	568180	13.59	549572	16.00
240-98320-1	MSA-MW-18S-071018	603267	10.62	531660	13.59	481857	16.00
240-98264-2	MSA-MW-18I-070918	628315	10.61	548899	13.59	513406	16.00
240-98264-3	MSA-MW-29D-070918	612766	10.62	504003	13.59	485984	16.00
240-98352-2	DMW-5S-071018	589658	10.61	514627	13.59	475228	16.00
240-98352-2 MS	DMW-5S-071018 MS	517569	10.62	486920	13.59	430934	16.00
240-98352-2 MSD	DMW-5S-071018 MSD	524676	10.62	492728	13.59	445986	16.00
240-98352-3	DMW-5I-071018	719034	10.62	600872	13.59	571867	16.00
240-98352-4	MSA-MW-38S-071018	590208	10.62	482328	13.59	468099	16.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-337230/2 Date Analyzed: 07/20/2018 11:58

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80720002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		131373	6.76	590516	7.83	308027	9.33
UPPER LIMIT		262746	7.26	1181032	8.33	616054	9.83
LOWER LIMIT		65687	6.26	295258	7.33	154014	8.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-337230/3 CCV		130055	6.76	589638	7.84	310866	9.33
LCS 240-335816/13-A		114071	6.77	532774	7.84	279074	9.33

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD6 240-337230/2 Date Analyzed: 07/20/2018 11:58

Instrument ID: A4AG2 GC Column: RXI-5SILMS/IIG ID: 0.25(mm)

Lab File ID (Standard): 80720002.D Heated Purge: (Y/N) N

Calibration ID: 45875

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		567520	10.62	570188	13.59	548304	16.01
UPPER LIMIT		1135040	11.12	1140376	14.09	1096608	16.51
LOWER LIMIT		283760	10.12	285094	13.09	274152	15.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
STD6 240-337230/3 CCV		568658	10.62	530391	13.59	508338	16.01
LCS 240-335816/13-A		509610	10.61	503130	13.59	460538	16.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/09/2018 06:13

Analysis Batch Number: 335188 End Date: 07/09/2018 18:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-335188/1		07/09/2018 06:13	1	80709001.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-335188/2 IC		07/09/2018 06:31	1	80709002.D	RXI-5SILMS/IIG 0.25(mm)
STD8 240-335188/3 IC		07/09/2018 06:55	1	80709003.D	RXI-5SILMS/IIG 0.25(mm)
STD7 240-335188/4 IC		07/09/2018 07:20	1	80709004.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-335188/5 ICIS		07/09/2018 07:44	1	80709005.D	RXI-5SILMS/IIG 0.25(mm)
STD5 240-335188/6 IC		07/09/2018 08:09	1	80709006.D	RXI-5SILMS/IIG 0.25(mm)
STD4 240-335188/7 IC		07/09/2018 08:33	1	80709007.D	RXI-5SILMS/IIG 0.25(mm)
STD3 240-335188/8 IC		07/09/2018 08:58	1	80709008.D	RXI-5SILMS/IIG 0.25(mm)
STD2 240-335188/9 IC		07/09/2018 09:23	1	80709009.D	RXI-5SILMS/IIG 0.25(mm)
STD1 240-335188/10 IC		07/09/2018 09:47	1	80709010.D	RXI-5SILMS/IIG 0.25(mm)
ICV 240-335188/11		07/09/2018 10:12	1	80709011.D	RXI-5SILMS/IIG 0.25(mm)
STD9 240-335188/12 IC		07/09/2018 10:38	1		RXI-5SILMS/IIG 0.25(mm)
STD8 240-335188/13 IC		07/09/2018 11:02	1		RXI-5SILMS/IIG 0.25(mm)
STD7 240-335188/14 IC		07/09/2018 11:27	1		RXI-5SILMS/IIG 0.25(mm)
STD6 240-335188/15 IC		07/09/2018 11:52	1		RXI-5SILMS/IIG 0.25(mm)
STD5 240-335188/16 IC		07/09/2018 12:17	1		RXI-5SILMS/IIG 0.25(mm)
STD4 240-335188/17 IC		07/09/2018 12:42	1		RXI-5SILMS/IIG 0.25(mm)
STD3 240-335188/18 IC		07/09/2018 13:07	1		RXI-5SILMS/IIG 0.25(mm)
STD2 240-335188/19 IC		07/09/2018 13:31	1		RXI-5SILMS/IIG 0.25(mm)
ICV 240-335188/20		07/09/2018 13:56	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/09/2018 14:21	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/09/2018 14:46	1		RXI-5SILMS/IIG 0.25(mm)
MB 240-335033/15-A		07/09/2018 15:11	1	80709030.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-335033/16-A		07/09/2018 15:35	1	80709031.D	RXI-5SILMS/IIG 0.25(mm)
LCSD 240-335033/17-A		07/09/2018 16:01	1	80709032.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/09/2018 17:41	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/09/2018 18:06	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/10/2018 09:04

Analysis Batch Number: 335396 End Date: 07/10/2018 20:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-335396/1		07/10/2018 09:04	1	80710001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-335396/2 CCVIS		07/10/2018 09:54	1	80710002.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-335396/3 CCV		07/10/2018 10:19	1	80710003.D	RXI-5SILMS/IIG 0.25(mm)
MB 240-335201/8-A		07/10/2018 10:44	1	80710004.D	RXI-5SILMS/IIG 0.25(mm)
LCS 240-335201/9-A		07/10/2018 11:09	1	80710005.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 14:06	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 14:31	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 15:46	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 16:11	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 16:36	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 17:01	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 17:27	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 17:52	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 18:17	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 18:43	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 19:33	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 19:58	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 20:22	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/10/2018 20:47	1		RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/11/2018 06:34

Analysis Batch Number: 335590 End Date: 07/11/2018 13:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-335590/1		07/11/2018 06:34	1	80711001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-335590/2 CCVIS		07/11/2018 06:52	1	80711002.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/11/2018 07:17	1		RXI-5SILMS/IIG 0.25(mm)
240-98038-2		07/11/2018 08:06	1	80711005.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-3		07/11/2018 08:30	1	80711006.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-7		07/11/2018 10:09	1	80711010.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-8		07/11/2018 10:34	1	80711011.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/11/2018 10:58	2		RXI-5SILMS/IIG 0.25(mm)
240-98135-2		07/11/2018 11:23	1	80711013.D	RXI-5SILMS/IIG 0.25(mm)
240-98135-3		07/11/2018 11:48	1	80711014.D	RXI-5SILMS/IIG 0.25(mm)
240-98135-3 MS		07/11/2018 12:12	1	80711015.D	RXI-5SILMS/IIG 0.25(mm)
240-98135-3 MSD		07/11/2018 12:37	1	80711016.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-4		07/11/2018 13:02	10	80711017.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-5		07/11/2018 13:26	4	80711018.D	RXI-5SILMS/IIG 0.25(mm)
240-98038-6		07/11/2018 13:52	10	80711019.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/18/2018 08:14

Analysis Batch Number: 336747 End Date: 07/18/2018 18:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-336747/1		07/18/2018 08:14	1	80718001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-336747/2 CCVIS		07/18/2018 08:39	1	80718002.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-336747/3 CCV		07/18/2018 09:04	1	80718003.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 09:29	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 10:19	1		RXI-5SILMS/IIG 0.25(mm)
MB 240-335816/12-A		07/18/2018 10:44	1	80718007.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 11:35	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 12:00	1		RXI-5SILMS/IIG 0.25(mm)
LODV 240-336747/35		07/18/2018 12:25	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 12:50	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 13:15	1		RXI-5SILMS/IIG 0.25(mm)
240-98320-1		07/18/2018 14:31	1	80718014.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 14:55	1		RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/18/2018 15:20	1		RXI-5SILMS/IIG 0.25(mm)
240-98264-2		07/18/2018 15:45	1	80718017.D	RXI-5SILMS/IIG 0.25(mm)
240-98264-3		07/18/2018 16:10	1	80718018.D	RXI-5SILMS/IIG 0.25(mm)
240-98352-2		07/18/2018 16:35	1	80718019.D	RXI-5SILMS/IIG 0.25(mm)
240-98352-2 MS		07/18/2018 17:00	1	80718020.D	RXI-5SILMS/IIG 0.25(mm)
240-98352-2 MSD		07/18/2018 17:24	1	80718021.D	RXI-5SILMS/IIG 0.25(mm)
240-98352-3		07/18/2018 17:49	1	80718022.D	RXI-5SILMS/IIG 0.25(mm)
240-98352-4		07/18/2018 18:13	1	80718023.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A4AG2 Start Date: 07/20/2018 11:41

Analysis Batch Number: 337230 End Date: 07/20/2018 18:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-337230/1		07/20/2018 11:41	1	80720001.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-337230/2 CCVIS		07/20/2018 11:58	1	80720002.D	RXI-5SILMS/IIG 0.25(mm)
STD6 240-337230/3 CCV		07/20/2018 12:27	1	80720003.D	RXI-5SILMS/IIG 0.25(mm)
ZZZZZ		07/20/2018 12:51	1		RXI-5SILMS/IIG 0.25(mm)
LODV 240-337230/13		07/20/2018 13:18	1		RXI-5SILMS/IIG 0.25(mm)
LCS 240-335816/13-A		07/20/2018 18:41	1	80720018.D	RXI-5SILMS/IIG 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335033 Batch Start Date: 07/06/18 13:44 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-98038-D-2	DMW-16D-070218	3510C, 8270D	T	280 mL	5 mL	5 SU	2 SU		
240-98038-D-3	DMW-16I-070218	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-98038-I-4	DMW-16S-070218	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-98038-H-5	MSA-MW-53S-070218	3510C, 8270D	T	220 mL	5 mL	7 SU	2 SU		
240-98038-D-6	MSA-MW-53I-070218	3510C, 8270D	T	250 mL	5 mL	5 SU	2 SU		
240-98038-G-7	MSA-MW-39S-070218	3510C, 8270D	T	280 mL	5 mL	7 SU	2 SU		
240-98038-F-8	MSA-MW-43S-070218	3510C, 8270D	T	250 mL	5 mL	7 SU	2 SU		
MB 240-335033/15		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-335033/16		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
LCSD 240-335033/17		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-98038-D-2	DMW-16D-070218	3510C, 8270D	T	0.4 mL					
240-98038-D-3	DMW-16I-070218	3510C, 8270D	T	0.4 mL					
240-98038-I-4	DMW-16S-070218	3510C, 8270D	T	0.4 mL					
240-98038-H-5	MSA-MW-53S-070218	3510C, 8270D	T	0.4 mL					
240-98038-D-6	MSA-MW-53I-070218	3510C, 8270D	T	0.4 mL					
240-98038-G-7	MSA-MW-39S-070218	3510C, 8270D	T	0.4 mL					
240-98038-F-8	MSA-MW-43S-070218	3510C, 8270D	T	0.4 mL					
MB 240-335033/15		3510C, 8270D		0.4 mL					
LCS 240-335033/16		3510C, 8270D		0.4 mL					
LCSD 240-335033/17		3510C, 8270D		0.4 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335033 Batch Start Date: 07/06/18 13:44 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Batch Notes	
Acid Used for pH Adjustment ID	3640353
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3664588
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335201 Batch Start Date: 07/09/18 06:41 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNASPIKE 00087
240-98135-F-2	DMW-17S-070518	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-98135-J-3	DMW-17I-070518	3510C, 8270D	T	270 mL	5 mL	6 SU	2 SU		
240-98135-M-3 MS	DMW-17I-070518	3510C, 8270D	T	270 mL	5 mL	6 SU	2 SU	0.2 mL	0.4 mL
240-98135-N-3 MSD	DMW-17I-070518	3510C, 8270D	T	260 mL	5 mL	6 SU	2 SU	0.2 mL	0.4 mL
MB 240-335201/8		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-335201/9		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNASURR W 00062					
240-98135-F-2	DMW-17S-070518	3510C, 8270D	T	0.4 mL					
240-98135-J-3	DMW-17I-070518	3510C, 8270D	T	0.4 mL					
240-98135-M-3 MS	DMW-17I-070518	3510C, 8270D	T	0.4 mL					
240-98135-N-3 MSD	DMW-17I-070518	3510C, 8270D	T	0.4 mL					
MB 240-335201/8		3510C, 8270D		0.4 mL					
LCS 240-335201/9		3510C, 8270D		0.4 mL					

Batch Notes	
Acid Used for pH Adjustment ID	3640353
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	BRITTANYBLYTHE STEVEEARLE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3664588
Analyst ID - Spike Analyst	BRITTANYBLYTHE

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335201 Batch Start Date: 07/09/18 06:41 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335816 Batch Start Date: 07/12/18 06:32 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exBENZALDEHYD 00060	exBNA_Mega 00001
240-98264-J-2	MSA-MW-18I-070918	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-98264-D-3	MSA-MW-29D-070918	3510C, 8270D	T	270 mL	5 mL	5 SU	2 SU		
240-98320-M-1	MSA-MW-18S-071018	3510C, 8270D	T	260 mL	5 mL	7 SU	2 SU		
240-98352-P-2	DMW-5S-071018	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
240-98352-V-2 MS	DMW-5S-071018	3510C, 8270D	T	250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
240-98352-Q-2 MSD	DMW-5S-071018	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL
240-98352-D-3	DMW-5I-071018	3510C, 8270D	T	270 mL	5 mL	4 SU	2 SU		
240-98352-F-4	MSA-MW-38S-071018	3510C, 8270D	T	270 mL	5 mL	7 SU	2 SU		
MB 240-335816/12		3510C, 8270D		250 mL	5 mL	7 SU	2 SU		
LCS 240-335816/13		3510C, 8270D		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.4 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	exBNA_TempL1 00001	exBNASURR W 00063				
240-98264-J-2	MSA-MW-18I-070918	3510C, 8270D	T		0.4 mL				
240-98264-D-3	MSA-MW-29D-070918	3510C, 8270D	T		0.4 mL				
240-98320-M-1	MSA-MW-18S-071018	3510C, 8270D	T		0.4 mL				
240-98352-P-2	DMW-5S-071018	3510C, 8270D	T		0.4 mL				
240-98352-V-2 MS	DMW-5S-071018	3510C, 8270D	T	0.4 mL	0.4 mL				
240-98352-Q-2 MSD	DMW-5S-071018	3510C, 8270D	T	0.4 mL	0.4 mL				
240-98352-D-3	DMW-5I-071018	3510C, 8270D	T		0.4 mL				
240-98352-F-4	MSA-MW-38S-071018	3510C, 8270D	T		0.4 mL				
MB 240-335816/12		3510C, 8270D			0.4 mL				
LCS 240-335816/13		3510C, 8270D		0.4 mL	0.4 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335816 Batch Start Date: 07/12/18 06:32 Batch Analyst: Blythe, Brittany

Batch Method: 3510C Batch End Date:

Batch Notes	
Acid Used for pH Adjustment ID	3640353
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Analyst ID - Extraction	STEVEEARLE BRITTANYBLYTHE
Na2SO4 ID	2548156
pH Indicator ID	2644944 2794736
Pipette/Syringe/Dispenser ID	4
Prep Solvent ID	3664588
Analyst ID - Spike Analyst	BRITTANYBLYTHE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): HP-PLOT/Q ID: 0.53(mm)

Client Sample ID	Lab Sample ID	TFE1 #
MSA-MW-18I-070918	240-98264-2	117
MSA-MW-18S-071018	240-98320-1	123
	MB 240-336664/4	119
	LCS 240-336664/5	118
	LCSD 240-336664/6	116

	QC LIMITS
TFE = 1,1,1-Trifluoroethane	60-140

Column to be used to flag recovery values

FORM II RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0071705.D

Lab ID: LCS 240-336664/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Methane	285	317	111	80-120	
Ethane	536	546	102	80-120	
Ethylene	501	519	104	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z0071706.D

Lab ID: LCSD 240-336664/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	285	314	110	1	35	80-120	
Ethane	536	541	101	1	35	80-120	
Ethylene	501	512	102	1	35	80-120	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-336664/4

Matrix: Water Date Extracted:

Lab File ID:(1) Z0071704.D Lab File ID:(2)

Date Analyzed:(1) 07/17/2018 15:08 Date Analyzed:(2)

Instrument ID:(1) ZPID Instrument ID:(2)

GC Column:(1) HP-PLOT/Q ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-336664/5	07/17/2018 15:26	
	LCSD 240-336664/6	07/17/2018 15:43	
MSA-MW-18I-070918	240-98264-2	07/17/2018 16:18	
MSA-MW-18S-071018	240-98320-1	07/17/2018 17:27	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-336664/4

Matrix: Water Lab File ID: Z0071704.D

Analysis Method: RSK-175 Date Collected:

Sample wt/vol: 23(mL) Date Analyzed: 07/17/2018 15:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: HP-PLOT/Q ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 336664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.17	U	1.0	0.17
74-84-0	Ethane	0.10	U	1.0	0.10
74-85-1	Ethylene	0.11	U	1.0	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
420-46-2	1,1,1-Trifluoroethane	119		60-140

FORM VIII
GC VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVRT 240-336664/3 Date Analyzed: 07/17/2018 14:51

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm)

Lab File ID (Standard): Z0071703.D Heated Purge: (Y/N) N

Calibration ID: 45555

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFE		
				RT #		
CONTINUING CALIBRATION SURROGATE				3.35		
UPPER LIMIT				3.40		
LOWER LIMIT				3.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-336664/3		07/17/2018 14:51	Z0071703.D	3.35		
MB 240-336664/4		07/17/2018 15:08	Z0071704.D	3.35		
LCS 240-336664/5		07/17/2018 15:26	Z0071705.D	3.35		
LCSD 240-336664/6		07/17/2018 15:43	Z0071706.D	3.35		
240-98264-2	MSA-MW-18I-070918	07/17/2018 16:18	Z0071708.D	3.35		
240-98320-1	MSA-MW-18S-071018	07/17/2018 17:27	Z0071712.D	3.35		
CCV 240-336664/19		07/17/2018 19:27	Z0071719.D	3.35		

TFE = 1,1,1-Trifluoroethane

TFE RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII RSK-175

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Methane	1.185	1.186	1.186	1.184	1.185	1.185					1.135 - 1.235	1.185
Ethylene	1.885	1.885	1.884	1.884	1.883	1.880					1.830 - 1.930	1.884
Acetylene	2.000	2.000	1.999	1.998	1.998	1.995					1.945 - 2.045	1.998
Ethane	2.207	2.206	2.206	2.206	2.205	2.198					1.998 - 2.398	2.205
Propane	4.555	4.556	4.556	4.554	4.551	4.532					4.482 - 4.582	4.551
1,1,1-Trifluoroethane	3.354	3.355	3.352	3.351	3.348						3.252 - 3.452	3.352

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Methane	7282.2 5561.5	6249.9 5513.0	5889.1	5770.1	Ave		6044.29415				10.9		20.0			
Ethylene	6624.5 5964.4	5960.5 5857.9	5827.0	5726.3	Ave		5993.41403				5.4		20.0			
Acetylene	2494.2 3606.7	2427.9 3574.8	2790.8	3206.7	Ave		3016.84656				17.3		30.0			
Ethane	7041.7 6329.9	6168.8 6267.0	6020.7	5967.3	Ave		6299.22755				6.2		20.0			
Propane	6701.5 6683.3	6072.4 6713.1	6073.3	6012.9	Ave		6376.09197				5.6		20.0			
1,1,1-Trifluoroethane	2336.7 1945.7	2237.2	2110.2	2217.2	Ave		2169.39000				6.9		30.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 332070

SDG No.:

Instrument ID: ZPID GC Column: HP-PLOT/Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/18/2018 08:53 Calibration End Date: 06/18/2018 10:20 Calibration ID: 45555

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-332070/3	Z0061803.D
Level 2	STD 240-332070/4	Z0061804.D
Level 3	STD 240-332070/5	Z0061805.D
Level 4	STD 240-332070/6	Z0061806.D
Level 5	STD 240-332070/7	Z0061807.D
Level 6	STD 240-332070/8	Z0061808.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Methane	Ave	2077 23578965	12478	58789	576004	2378625	0.285 4277	2.00	9.98	99.8	428
Ethylene	Ave	3318 44002878	20898	102149	1003846	4480284	0.501 7512	3.51	17.5	175	751
Acetylene	Ave	1156 24845661	7877	45272	520180	2506714	0.463 6950	3.24	16.2	162	695
Ethane	Ave	3778 50427702	23168	113058	1120550	5093368	0.537 8047	3.76	18.8	188	805
Propane	Ave	5268 79143040	33414	167095	1654322	7879231	0.786 11789	5.50	27.5	275	1179
1,1,1-Trifluoroethane	Ave	699612	1172180	5528422	11617250	21845316	299	524	2620	5240	11228

Curve Type Legend:
Ave = Average

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-332070/9 Calibration Date: 06/18/2018 10:38

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0061809.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	5299		250	285	-12.3	20.0
Ethylene	Ave	5993	5712		477	501	-4.7	20.0
Acetylene	Ave	3017	3272		503	463	8.5	30.0
Ethane	Ave	6299	6090		519	536	-3.3	20.0
Propane	Ave	6376	6557		806	784	2.8	20.0
1,1,1-Trifluoroethane	Ave	2169	2622		11200	9240	20.9	30.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-332070/9 Calibration Date: 06/18/2018 10:38

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0061809.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.18	1.14	1.24
Ethylene	1.88	1.83	1.93
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.00	2.40
Propane	4.55	4.48	4.58
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 240-336398/3 Calibration Date: 07/17/2018 11:59

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071703.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	7752		0.732	0.570	28.3	40.0
Ethylene	Ave	5993	6681		1.12	1.00	11.5	40.0
Acetylene	Ave	3017	2259		0.694	0.927	-25.1	40.0
Ethane	Ave	6299	7112		1.21	1.07	12.9	40.0
Propane	Ave	6376	7147		1.76	1.57	12.1	40.0
1,1,1-Trifluoroethane	Ave	2169	1855		256	299	-14.5	40.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 240-336398/3 Calibration Date: 07/17/2018 11:59

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071703.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.89	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.01	2.41
Propane	4.56	4.51	4.61
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVH 240-336398/5 Calibration Date: 07/17/2018 12:33

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071705.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	6270		4440	4280	3.7	20.0
Ethylene	Ave	5993	5719		7170	7510	-4.6	20.0
Acetylene	Ave	3017	3520		8110	6950	16.7	30.0
Ethane	Ave	6299	5958		7610	8050	-5.4	20.0
Propane	Ave	6376	6036		11200	11800	-5.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVH 240-336398/5 Calibration Date: 07/17/2018 12:33

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071705.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.88	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.20	2.01	2.41
Propane	4.54	4.51	4.61

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336664/3 Calibration Date: 07/17/2018 14:51

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071703.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	6689		316	285	10.7	20.0
Ethylene	Ave	5993	6173		516	501	3.0	20.0
Acetylene	Ave	3017	3664		563	463	21.5	30.0
Ethane	Ave	6299	6371		543	536	1.1	20.0
Propane	Ave	6376	6423		792	786	0.7	20.0
1,1,1-Trifluoroethane	Ave	2169	2551		10900	9240	17.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336664/3 Calibration Date: 07/17/2018 14:51

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071703.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.89	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.01	2.41
Propane	4.56	4.51	4.61
1,1,1-Trifluoroethane	3.35	3.25	3.45

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336664/19 Calibration Date: 07/17/2018 19:27

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071719.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Ave	6044	6673		315	285	10.4	20.0
Ethylene	Ave	5993	6075		508	501	1.4	20.0
Acetylene	Ave	3017	3704		569	463	22.8	30.0
Ethane	Ave	6299	6255		533	536	-0.7	20.0
Propane	Ave	6376	6195		764	786	-2.8	20.0
1,1,1-Trifluoroethane	Ave	2169	2498		10600	9240	15.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336664/19 Calibration Date: 07/17/2018 19:27

Instrument ID: ZPID Calib Start Date: 06/18/2018 08:53

GC Column: HP-PLOT/Q ID: 0.53(mm) Calib End Date: 06/18/2018 10:20

Lab File ID: Z0071719.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.19	1.14	1.24
Ethylene	1.89	1.84	1.94
Acetylene	2.00	1.95	2.05
Ethane	2.21	2.01	2.41
Propane	4.55	4.51	4.61
1,1,1-Trifluoroethane	3.35	3.25	3.45

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ZPID Start Date: 06/18/2018 08:53

Analysis Batch Number: 332070 End Date: 06/18/2018 10:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD 240-332070/3 IC		06/18/2018 08:53	1	Z0061803.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/4 IC		06/18/2018 09:10	1	Z0061804.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/5 IC		06/18/2018 09:28	1	Z0061805.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/6 IC		06/18/2018 09:45	1	Z0061806.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/7 IC		06/18/2018 10:02	1	Z0061807.D	HP-PLOT/Q 0.53(mm)
STD 240-332070/8 IC		06/18/2018 10:20	1	Z0061808.D	HP-PLOT/Q 0.53(mm)
ICV 240-332070/9		06/18/2018 10:38	1	Z0061809.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ZPID Start Date: 07/17/2018 11:59

Analysis Batch Number: 336398 End Date: 07/17/2018 12:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 240-336398/3		07/17/2018 11:59	1	Z0071703.D	HP-PLOT/Q 0.53(mm)
CCVL 240-336398/4		07/17/2018 12:16	1		HP-PLOT/Q 0.53(mm)
CCVH 240-336398/5		07/17/2018 12:33	1	Z0071705.D	HP-PLOT/Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ZPID Start Date: 07/17/2018 14:51

Analysis Batch Number: 336664 End Date: 07/17/2018 22:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-336664/3		07/17/2018 14:51	1	Z0071703.D	HP-PLOT/Q 0.53(mm)
MB 240-336664/4		07/17/2018 15:08	1	Z0071704.D	HP-PLOT/Q 0.53(mm)
LCS 240-336664/5		07/17/2018 15:26	1	Z0071705.D	HP-PLOT/Q 0.53(mm)
LCSD 240-336664/6		07/17/2018 15:43	1	Z0071706.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 16:00	1		HP-PLOT/Q 0.53(mm)
240-98264-2		07/17/2018 16:18	1	Z0071708.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 16:35	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 16:52	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 17:09	1		HP-PLOT/Q 0.53(mm)
240-98320-1		07/17/2018 17:27	1	Z0071712.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 17:44	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 18:01	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 18:18	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 18:36	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 18:53	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 19:10	1		HP-PLOT/Q 0.53(mm)
CCV 240-336664/19		07/17/2018 19:27	1	Z0071719.D	HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 19:44	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 20:02	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 20:19	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 20:36	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 20:53	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 21:10	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 21:28	1		HP-PLOT/Q 0.53(mm)
ZZZZZ		07/17/2018 21:45	1		HP-PLOT/Q 0.53(mm)
CCV 240-336664/28		07/17/2018 22:02	1		HP-PLOT/Q 0.53(mm)

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45(mm)

Client Sample ID	Lab Sample ID	TFT1 #
DMW-16S-070218	240-98038-4	80
MSA-MW-53S-070218	240-98038-5	77
MSA-MW-39S-070218	240-98038-7	84
MSA-MW-43S-070218	240-98038-8	77
DMW-17S-070518	240-98135-2	77
MSA-MW-18S-071018	240-98320-1	84
DMW-5S-071018	240-98352-2	75
MSA-MW-38S-071018	240-98352-4	79
	MB 240-335002/5	77
	MB 240-335392/5	87
	MB 240-336306/21	75
	MB 240-336750/9	77
	LCS 240-335002/6	88
	LCS 240-335392/6	84
	LCS 240-336306/22	67
	LCS 240-336750/10	87
MSA-MW-43S-070218 MS	240-98038-8 MS	88
DMW-5S-071018 MS	240-98352-2 MS	90
MSA-MW-43S-070218 MSD	240-98038-8 MSD	87
DMW-5S-071018 MSD	240-98352-2 MSD	89

	QC LIMITS
TFT = Trifluorotoluene (Surr)	56-120

Column to be used to flag recovery values

FORM II 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070606.D

Lab ID: LCS 240-335002/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	892	111	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0071006.D

Lab ID: LCS 240-335392/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	941	118	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0071622.D

Lab ID: LCS 240-336306/22 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	807	101	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0071810.D

Lab ID: LCS 240-336750/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	822	103	73-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070620.D

Lab ID: 240-98038-8 MS Client ID: MSA-MW-43S-070218 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	74 J	939	108	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0071812.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	16000	15000	33200	116	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0070621.D

Lab ID: 240-98038-8 MSD Client ID: MSA-MW-43S-070218 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics [C6 - C10]	800	939	108	0	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A0071813.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Gasoline Range Organics [C6 - C10]	16000	33200	116	0	23	61-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-335002/5

Matrix: Water Date Extracted: 07/06/2018 14:44

Lab File ID:(1) A0070605.D Lab File ID:(2)

Date Analyzed:(1) 07/06/2018 14:44 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-335002/6	07/06/2018 15:23	
DMW-16S-070218	240-98038-4	07/06/2018 21:45	
MSA-MW-53S-070218	240-98038-5	07/06/2018 22:23	
MSA-MW-39S-070218	240-98038-7	07/06/2018 23:01	
MSA-MW-43S-070218	240-98038-8	07/06/2018 23:38	
MSA-MW-43S-070218 MS	240-98038-8 MS	07/07/2018 00:16	
MSA-MW-43S-070218 MSD	240-98038-8 MSD	07/07/2018 00:53	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335002/5

Matrix: Water | Lab File ID: A0070605.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/06/2018 14:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335002 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-335392/5

Matrix: Water Date Extracted: 07/10/2018 08:26

Lab File ID:(1) A0071005.D Lab File ID:(2)

Date Analyzed:(1) 07/10/2018 08:26 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-335392/6	07/10/2018 09:05	
DMW-17S-070518	240-98135-2	07/10/2018 12:25	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335392/5

Matrix: Water | Lab File ID: A0071005.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/10/2018 08:26

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 335392 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	87		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-336306/21

Matrix: Water Date Extracted: 07/16/2018 19:40

Lab File ID:(1) A0071621.D Lab File ID:(2)

Date Analyzed:(1) 07/16/2018 19:40 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-336306/22	07/16/2018 20:21	
MSA-MW-18S-071018	240-98320-1	07/17/2018 03:36	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336306/21

Matrix: Water | Lab File ID: A0071621.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/16/2018 19:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336306 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	75		56-120

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-336750/9

Matrix: Water Date Extracted: 07/18/2018 12:03

Lab File ID:(1) A0071809.D Lab File ID:(2)

Date Analyzed:(1) 07/18/2018 12:03 Date Analyzed:(2)

Instrument ID:(1) AFID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-336750/10	07/18/2018 12:41	
DMW-5S-071018	240-98352-2	07/18/2018 13:20	
DMW-5S-071018 MS	240-98352-2 MS	07/18/2018 13:58	
DMW-5S-071018 MSD	240-98352-2 MSD	07/18/2018 14:37	
MSA-MW-38S-071018	240-98352-4	07/18/2018 15:14	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336750/9

Matrix: Water | Lab File ID: A0071809.D

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/18/2018 12:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 336750 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics [C6 - C10]	49	U	100	49

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	77		56-120

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD4 240-322909/7 Date Analyzed: 04/18/2018 10:02

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0041807.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
INITIAL CALIBRATION SURROGATE				10.37		
UPPER LIMIT				10.47		
LOWER LIMIT				10.27		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD4 240-322909/7 ICRT		04/18/2018 10:02	A0041807.D	10.37		
ICV 240-322909/12		04/18/2018 13:09	A0041812.D	10.37		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVRT 240-335002/4 Date Analyzed: 07/06/2018 14:05

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0070604.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-335002/4		07/06/2018 14:05	A0070604.D	10.40		
MB 240-335002/5		07/06/2018 14:44	A0070605.D	10.40		
LCS 240-335002/6		07/06/2018 15:23	A0070606.D	10.40		
CCV 240-335002/15		07/06/2018 21:07	A0070615.D	10.40		
240-98038-4	DMW-16S-070218	07/06/2018 21:45	A0070616.D	10.40		
240-98038-5	MSA-MW-53S-070218	07/06/2018 22:23	A0070617.D	10.39		
240-98038-7	MSA-MW-39S-070218	07/06/2018 23:01	A0070618.D	10.40		
240-98038-8	MSA-MW-43S-070218	07/06/2018 23:38	A0070619.D	10.40		
240-98038-8 MS	MSA-MW-43S-070218 MS	07/07/2018 00:16	A0070620.D	10.39		
240-98038-8 MSD	MSA-MW-43S-070218 MSD	07/07/2018 00:53	A0070621.D	10.39		
CCV 240-335002/22		07/07/2018 01:30	A0070622.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVRT 240-335392/4 Date Analyzed: 07/10/2018 07:47

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0071004.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-335392/4		07/10/2018 07:47	A0071004.D	10.40		
MB 240-335392/5		07/10/2018 08:26	A0071005.D	10.40		
LCS 240-335392/6		07/10/2018 09:05	A0071006.D	10.40		
CCV 240-335392/8		07/10/2018 10:23	A0071008.D	10.40		
240-98135-2	DMW-17S-070518	07/10/2018 12:25	A0071011.D	10.40		
CCV 240-335392/16		07/10/2018 16:00	A0071016.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVRT 240-336306/4 Date Analyzed: 07/16/2018 07:38

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0071604.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-336306/4		07/16/2018 07:38	A0071604.D	10.40		
CCV 240-336306/20		07/16/2018 18:58	A0071620.D	10.40		
MB 240-336306/21		07/16/2018 19:40	A0071621.D	10.41		
LCS 240-336306/22		07/16/2018 20:21	A0071622.D	10.41		
CCV 240-336306/27		07/16/2018 23:41	A0071627.D	10.40		
240-98320-1	MSA-MW-18S-071018	07/17/2018 03:36	A0071633.D	10.41		
CCV 240-336306/36		07/17/2018 05:34	A0071636.D	10.41		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCVRT 240-336750/4 Date Analyzed: 07/18/2018 08:37

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): A0071804.D Heated Purge: (Y/N) N

Calibration ID: 44689

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT		
				RT #		
CONTINUING CALIBRATION SURROGATE				10.40		
UPPER LIMIT				10.50		
LOWER LIMIT				10.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-336750/4		07/18/2018 08:37	A0071804.D	10.40		
MB 240-336750/9		07/18/2018 12:03	A0071809.D	10.40		
LCS 240-336750/10		07/18/2018 12:41	A0071810.D	10.40		
240-98352-2	DMW-5S-071018	07/18/2018 13:20	A0071811.D	10.40		
240-98352-2 MS	DMW-5S-071018 MS	07/18/2018 13:58	A0071812.D	10.40		
240-98352-2 MSD	DMW-5S-071018 MSD	07/18/2018 14:37	A0071813.D	10.40		
240-98352-4	MSA-MW-38S-071018	07/18/2018 15:14	A0071814.D	10.40		
CCV 240-336750/15		07/18/2018 15:52	A0071815.D	10.40		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Gasoline Range Organics [C6 - C10]	11.960	11.960	11.960	11.960	11.960	11.960	11.960	11.960			6.888 - 17.031	11.960
C6-C12	13.212	13.212	13.212	13.212	13.212	13.212	13.212	13.212			6.888 - 19.536	13.212
Trifluorotoluene (Surr)	10.372	10.370	10.368	10.373	10.371	10.371	10.374	10.376			10.323 - 10.423	10.372

FORM VI
GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Gasoline Range Organics [C6 - C10]	333543 197607	222956 190911	204098 184096	197255 193889	Lin	6434878.01	189290.194							0.9990		0.9900
C6-C12	439203 220616	277317 212351	230771 204378	221150 214515	Lin1	18826906.7	203754.488							0.9980		0.9900
Trifluorotoluene (Surr)	355194 219034	243093 219036	239062 231568	229260 230184	Lin1	319923.315	226941.839							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI

GASOLINE RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA

RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 322909

SDG No.:

Instrument ID: AFID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2018 08:10 Calibration End Date: 04/18/2018 12:32 Calibration ID: 44689

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-322909/4	A0041804.D
Level 2	STD2 240-322909/5	A0041805.D
Level 3	STD3 240-322909/6	A0041806.D
Level 4	STD4 240-322909/7	A0041807.D
Level 5	STD5 240-322909/8	A0041808.D
Level 6	STD6 240-322909/9	A0041809.D
Level 7	STD7 240-322909/10	A0041810.D
Level 8	STD8 240-322909/11	A0041811.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Gasoline Range Organics [C6 - C10]	Lin	33354301 305456948	44591278 589106674	81639195 930667774	157804371	237127867	100 1600	200 3200	400 4800	800	1200
C6-C12	Lin1	43920328 339760877	55463455 654009953	92308420 1029672698	176920348	264739378	100 1600	200 3200	400 4800	800	1200
Trifluorotoluene (Surr)	Lin1	1420776 43807262	1944745 92627018	4781241 138110563	9170418	17522730	4.00 200	8.00 400	20.0 600	40.0	80.0

Curve Type Legend:

Lin = Linear
Lin1 = Linear 1/conc

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202284		821	800	2.6	20.0
C6-C12	Lin1		231611		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		236363		40.3	40.0	0.6	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-322909/12 Calibration Date: 04/18/2018 13:09

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0041812.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.96	6.89	17.03
C6-C12	13.21	6.89	19.54
Trifluorotoluene (Surr)	10.37	10.32	10.42

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-335002/4 Calibration Date: 07/06/2018 14:05

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070604.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		208729		848	800	6.0	20.0
C6-C12	Lin1		235364		832	800	4.0	20.0
Trifluorotoluene (Surr)	Lin1		212815		36.1	40.0	-9.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-335002/4 Calibration Date: 07/06/2018 14:05

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070604.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.96	17.02
C6-C12	13.25	6.96	19.53
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335002/15 Calibration Date: 07/06/2018 21:07

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070615.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		204430		830	800	3.7	20.0
C6-C12	Lin1		234185		827	800	3.4	20.0
Trifluorotoluene (Surr)	Lin1		199127		33.7	40.0	-15.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335002/15 Calibration Date: 07/06/2018 21:07

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070615.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.96	17.02
C6-C12	13.25	6.96	19.53
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335002/22 Calibration Date: 07/07/2018 01:30

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070622.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		211910		862	800	7.7	20.0
C6-C12	Lin1		242587		860	800	7.5	20.0
Trifluorotoluene (Surr)	Lin1		201965		34.2	40.0	-14.5	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335002/22 Calibration Date: 07/07/2018 01:30

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0070622.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	11.99	6.96	17.02
C6-C12	13.25	6.96	19.53
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-335392/4 Calibration Date: 07/10/2018 07:47

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		206903		840	800	5.1	20.0
C6-C12	Lin1		241506		856	800	7.0	20.0
Trifluorotoluene (Surr)	Lin1		212697		36.1	40.0	-9.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-335392/4 Calibration Date: 07/10/2018 07:47

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071004.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.04
C6-C12	13.26	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335392/8 Calibration Date: 07/10/2018 10:23

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071008.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		225284		918	800	14.8	20.0
C6-C12	Lin1		257018		917	800	14.6	20.0
Trifluorotoluene (Surr)	Lin1		210720		35.7	40.0	-10.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335392/8 Calibration Date: 07/10/2018 10:23

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071008.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.04
C6-C12	13.26	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335392/16 Calibration Date: 07/10/2018 16:00

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071016.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		226366		923	800	15.3	20.0
C6-C12	Lin1		260722		931	800	16.4	20.0
Trifluorotoluene (Surr)	Lin1		214438		36.4	40.0	-9.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335392/16 Calibration Date: 07/10/2018 16:00

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071016.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.04
C6-C12	13.26	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336306/4 Calibration Date: 07/16/2018 07:38

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071604.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		191160		774	800	-3.3	20.0
C6-C12	Lin1		216329		757	800	-5.4	20.0
Trifluorotoluene (Surr)	Lin1		188863		31.9	40.0	-20.3*	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336306/4 Calibration Date: 07/16/2018 07:38

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071604.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.97	17.04
C6-C12	13.26	6.97	19.54
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/20 Calibration Date: 07/16/2018 18:58

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071620.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		202100		820	800	2.5	20.0
C6-C12	Lin1		232404		820	800	2.5	20.0
Trifluorotoluene (Surr)	Lin1		205733		34.9	40.0	-12.9	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/20 Calibration Date: 07/16/2018 18:58

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071620.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.00	6.98	17.04
C6-C12	13.26	6.98	19.53
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/27 Calibration Date: 07/16/2018 23:41

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071627.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		203609		827	800	3.3	20.0
C6-C12	Lin1		229053		807	800	0.9	20.0
Trifluorotoluene (Surr)	Lin1		212589		36.1	40.0	-9.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/27 Calibration Date: 07/16/2018 23:41

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071627.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.01	6.98	17.04
C6-C12	13.26	6.98	19.53
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/36 Calibration Date: 07/17/2018 05:34

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071636.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		205428		834	800	4.3	20.0
C6-C12	Lin1		231600		817	800	2.1	20.0
Trifluorotoluene (Surr)	Lin1		221246		37.6	40.0	-6.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336306/36 Calibration Date: 07/17/2018 05:34

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071636.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.01	6.98	17.04
C6-C12	13.26	6.98	19.53
Trifluorotoluene (Surr)	10.41	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336750/4 Calibration Date: 07/18/2018 08:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071804.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		195901		794	800	-0.8	20.0
C6-C12	Lin1		223186		784	800	-2.0	20.0
Trifluorotoluene (Surr)	Lin1		253190		43.2	40.0	8.0	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVRT 240-336750/4 Calibration Date: 07/18/2018 08:37

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071804.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.01	6.99	17.03
C6-C12	13.26	6.99	19.52
Trifluorotoluene (Surr)	10.40	10.35	10.45

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336750/15 Calibration Date: 07/18/2018 15:52

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071815.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics [C6 - C10]	Lin		205780		836	800	4.5	20.0
C6-C12	Lin1		235547		832	800	4.1	20.0
Trifluorotoluene (Surr)	Lin1		233222		39.7	40.0	-0.8	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336750/15 Calibration Date: 07/18/2018 15:52

Instrument ID: AFID Calib Start Date: 04/18/2018 08:10

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 04/18/2018 12:32

Lab File ID: A0071815.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Gasoline Range Organics [C6 - C10]	12.01	6.99	17.03
C6-C12	13.26	6.99	19.52
Trifluorotoluene (Surr)	10.40	10.35	10.45

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: AFID Start Date: 04/18/2018 08:10

Analysis Batch Number: 322909 End Date: 04/18/2018 13:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-322909/4 IC		04/18/2018 08:10	1	A0041804.D	RTX-VRX 0.45(mm)
STD2 240-322909/5 IC		04/18/2018 08:47	1	A0041805.D	RTX-VRX 0.45(mm)
STD3 240-322909/6 IC		04/18/2018 09:24	1	A0041806.D	RTX-VRX 0.45(mm)
STD4 240-322909/7 ICRT		04/18/2018 10:02	1	A0041807.D	RTX-VRX 0.45(mm)
STD5 240-322909/8 IC		04/18/2018 10:39	1	A0041808.D	RTX-VRX 0.45(mm)
STD6 240-322909/9 IC		04/18/2018 11:17	1	A0041809.D	RTX-VRX 0.45(mm)
STD7 240-322909/10 IC		04/18/2018 11:54	1	A0041810.D	RTX-VRX 0.45(mm)
STD8 240-322909/11 IC		04/18/2018 12:32	1	A0041811.D	RTX-VRX 0.45(mm)
ICV 240-322909/12		04/18/2018 13:09	1	A0041812.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: AFID Start Date: 07/06/2018 14:05

Analysis Batch Number: 335002 End Date: 07/07/2018 01:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-335002/4		07/06/2018 14:05	1	A0070604.D	RTX-VRX 0.45(mm)
MB 240-335002/5		07/06/2018 14:44	1	A0070605.D	RTX-VRX 0.45(mm)
LCS 240-335002/6		07/06/2018 15:23	1	A0070606.D	RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 16:01	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 16:40	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 17:18	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 17:57	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 18:35	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 19:13	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 19:52	1		RTX-VRX 0.45(mm)
ZZZZZ		07/06/2018 20:30	1		RTX-VRX 0.45(mm)
CCV 240-335002/15		07/06/2018 21:07	1	A0070615.D	RTX-VRX 0.45(mm)
240-98038-4		07/06/2018 21:45	1	A0070616.D	RTX-VRX 0.45(mm)
240-98038-5		07/06/2018 22:23	1	A0070617.D	RTX-VRX 0.45(mm)
240-98038-7		07/06/2018 23:01	1	A0070618.D	RTX-VRX 0.45(mm)
240-98038-8		07/06/2018 23:38	1	A0070619.D	RTX-VRX 0.45(mm)
240-98038-8 MS		07/07/2018 00:16	1	A0070620.D	RTX-VRX 0.45(mm)
240-98038-8 MSD		07/07/2018 00:53	1	A0070621.D	RTX-VRX 0.45(mm)
CCV 240-335002/22		07/07/2018 01:30	1	A0070622.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: AFID Start Date: 07/10/2018 07:47

Analysis Batch Number: 335392 End Date: 07/10/2018 16:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-335392/4		07/10/2018 07:47	1	A0071004.D	RTX-VRX 0.45(mm)
MB 240-335392/5		07/10/2018 08:26	1	A0071005.D	RTX-VRX 0.45(mm)
LCS 240-335392/6		07/10/2018 09:05	1	A0071006.D	RTX-VRX 0.45(mm)
CCV 240-335392/8		07/10/2018 10:23	1	A0071008.D	RTX-VRX 0.45(mm)
ZZZZZ		07/10/2018 11:44	1		RTX-VRX 0.45(mm)
240-98135-2		07/10/2018 12:25	1	A0071011.D	RTX-VRX 0.45(mm)
ZZZZZ		07/10/2018 13:05	1		RTX-VRX 0.45(mm)
ZZZZZ		07/10/2018 13:49	1		RTX-VRX 0.45(mm)
ZZZZZ		07/10/2018 14:31	1		RTX-VRX 0.45(mm)
ZZZZZ		07/10/2018 15:15	1		RTX-VRX 0.45(mm)
CCV 240-335392/16		07/10/2018 16:00	1	A0071016.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: AFID Start Date: 07/16/2018 07:38

Analysis Batch Number: 336306 End Date: 07/17/2018 05:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-336306/4		07/16/2018 07:38	1	A0071604.D	RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 08:18	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 08:57	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 09:37	1		RTX-VRX 0.45(mm)
CCV 240-336306/8		07/16/2018 10:17	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 13:50	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 14:34	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 15:18	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 16:02	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 16:44	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 17:29	1		RTX-VRX 0.45(mm)
ZZZZZ		07/16/2018 18:14	1		RTX-VRX 0.45(mm)
CCV 240-336306/20		07/16/2018 18:58	1	A0071620.D	RTX-VRX 0.45(mm)
MB 240-336306/21		07/16/2018 19:40	1	A0071621.D	RTX-VRX 0.45(mm)
LCS 240-336306/22		07/16/2018 20:21	1	A0071622.D	RTX-VRX 0.45(mm)
CCV 240-336306/27		07/16/2018 23:41	1	A0071627.D	RTX-VRX 0.45(mm)
ZZZZZ		07/17/2018 00:20	1		RTX-VRX 0.45(mm)
ZZZZZ		07/17/2018 01:00	1		RTX-VRX 0.45(mm)
ZZZZZ		07/17/2018 01:39	1		RTX-VRX 0.45(mm)
ZZZZZ		07/17/2018 02:18	1		RTX-VRX 0.45(mm)
ZZZZZ		07/17/2018 02:57	1		RTX-VRX 0.45(mm)
240-98320-1		07/17/2018 03:36	1	A0071633.D	RTX-VRX 0.45(mm)
CCV 240-336306/36		07/17/2018 05:34	1	A0071636.D	RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: AFID Start Date: 07/18/2018 08:37

Analysis Batch Number: 336750 End Date: 07/18/2018 21:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-336750/4		07/18/2018 08:37	1	A0071804.D	RTX-VRX 0.45(mm)
MB 240-336750/9		07/18/2018 12:03	1	A0071809.D	RTX-VRX 0.45(mm)
LCS 240-336750/10		07/18/2018 12:41	1	A0071810.D	RTX-VRX 0.45(mm)
240-98352-2		07/18/2018 13:20	20	A0071811.D	RTX-VRX 0.45(mm)
240-98352-2 MS		07/18/2018 13:58	20	A0071812.D	RTX-VRX 0.45(mm)
240-98352-2 MSD		07/18/2018 14:37	20	A0071813.D	RTX-VRX 0.45(mm)
240-98352-4		07/18/2018 15:14	1	A0071814.D	RTX-VRX 0.45(mm)
CCV 240-336750/15		07/18/2018 15:52	1	A0071815.D	RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 16:30	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 17:09	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 17:46	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 18:24	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 19:01	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 19:39	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 20:17	1		RTX-VRX 0.45(mm)
ZZZZZ		07/18/2018 20:55	1		RTX-VRX 0.45(mm)
CCV 240-336750/24		07/18/2018 21:33	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 322909 Batch Start Date: 04/18/18 08:10 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Gas Surr Cali 00023	VGGASCALNEW 00024	VGGASCHK 00080	
STD1 240-322909/4 IC		8015C		5 mL	5 mL	1 uL	5 uL		
STD2 240-322909/5 IC		8015C		5 mL	5 mL	2 uL	10 uL		
STD3 240-322909/6 IC		8015C		5 mL	5 mL	5 uL	20 uL		
STD4 240-322909/7 ICRT		8015C		5 mL	5 mL	10 uL	40 uL		
STD5 240-322909/8 IC		8015C		5 mL	5 mL	20 uL	60 uL		
STD6 240-322909/9 IC		8015C		5 mL	5 mL	50 uL	80 uL		
STD7 240-322909/10 IC		8015C		5 mL	5 mL	100 uL	160 uL		
STD8 240-322909/11 IC		8015C		5 mL	5 mL	150 uL	240 uL		
ICV 240-322909/12		8015C		5 mL	5 mL	10 uL		40 uL	

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335002 Batch Start Date: 07/06/18 14:05 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-335002/4		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-335002/5		8015C		5 mL	5 mL				1 uL
LCS 240-335002/6		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-335002/15		8015C		5 mL	5 mL		40 uL		1 uL
240-98038-A-4	DMW-16S-070218	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-98038-A-5	MSA-MW-53S-070218	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-98038-A-7	MSA-MW-39S-070218	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-98038-A-8	MSA-MW-43S-070218	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-98038-A-8 MS	MSA-MW-43S-070218	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-98038-A-8 MSD	MSA-MW-43S-070218	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
CCV 240-335002/22		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335392 Batch Start Date: 07/10/18 07:47 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-335392/4		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-335392/5		8015C		5 mL	5 mL				1 uL
LCS 240-335392/6		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-335392/8		8015C		5 mL	5 mL		40 uL		1 uL
240-98135-A-2	DMW-17S-070518	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-335392/16		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336306 Batch Start Date: 07/16/18 07:38 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-336306/4		8015C		5 mL	5 mL		40 uL		1 uL
CCV 240-336306/20		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-336306/21		8015C		5 mL	5 mL				1 uL
LCS 240-336306/22		8015C		5 mL	5 mL			40 uL	1 uL
CCV 240-336306/27		8015C		5 mL	5 mL		40 uL		1 uL
240-98320-A-1	MSA-MW-18S-071018	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-336306/36		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GASOLINE RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336750 Batch Start Date: 07/18/18 08:37 Batch Analyst: Reed, Rachel T

Batch Method: 8015C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	VGGASCALNEW 00024	VGGASCHK 00080	VGGASURROGATE 00046
CCVRT 240-336750/4		8015C		5 mL	5 mL		40 uL		1 uL
MB 240-336750/9		8015C		5 mL	5 mL				1 uL
LCS 240-336750/10		8015C		5 mL	5 mL			40 uL	1 uL
240-98352-A-2	DMW-5S-071018	8015C	T	5 mL	5 mL	<2 SU			1 uL
240-98352-A-2 MS	DMW-5S-071018	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-98352-A-2 MSD	DMW-5S-071018	8015C	T	5 mL	5 mL	<2 SU		40 uL	1 uL
240-98352-A-4	MSA-MW-38S-071018	8015C	T	5 mL	5 mL	<2 SU			1 uL
CCV 240-336750/15		8015C		5 mL	5 mL		40 uL		1 uL

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Rxi-5HT ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH1 #
DMW-16S-070218	240-98038-4	91
MSA-MW-53S-070218	240-98038-5	83
MSA-MW-39S-070218	240-98038-7	83
MSA-MW-43S-070218	240-98038-8	80
DMW-17S-070518	240-98135-2	77
MSA-MW-18S-071018	240-98320-1	90
DMW-5S-071018	240-98352-2	86
MSA-MW-38S-071018	240-98352-4	89
	MB 240-334809/13-A	66
	MB 240-335270/5-A	78
	MB 240-335741/5-A	92
	MB 240-336332/3-A	84
	LCS 240-334809/14-A	84
	LCS 240-335270/6-A	89
	LCS 240-335741/6-A	95
	LCS 240-336332/4-A	92
DMW-5S-071018 MS	240-98352-2 MS	84
DMW-5S-071018 MSD	240-98352-2 MSD	82

	QC LIMITS
OTPH = o-Terphenyl (Surr)	37-130

Column to be used to flag recovery values

FORM II 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R070909.D

Lab ID: LCS 240-334809/14-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1390	69	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R071108.D

Lab ID: LCS 240-335270/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1580	79	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R071313.D

Lab ID: LCS 240-335741/6-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1760	88	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R071709.D

Lab ID: LCS 240-336332/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2000	1670	83	56-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R071713.D

Lab ID: 240-98352-2 MS Client ID: DMW-5S-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Diesel	1920	550	1470	48	27-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
DIESEL RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: R071714.D

Lab ID: 240-98352-2 MSD Client ID: DMW-5S-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	1920	1560	52	6	35	27-120	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-334809/13-A

Matrix: Water Date Extracted: 07/05/2018 09:50

Lab File ID:(1) R070908.D Lab File ID:(2)

Date Analyzed:(1) 07/09/2018 17:08 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-334809/14-A	07/09/2018 17:35	
DMW-16S-070218	240-98038-4	07/10/2018 00:01	
MSA-MW-53S-070218	240-98038-5	07/10/2018 00:28	
MSA-MW-39S-070218	240-98038-7	07/10/2018 00:55	
MSA-MW-43S-070218	240-98038-8	07/10/2018 01:23	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-334809/13-A

Matrix: Water | Lab File ID: R070908.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/05/2018 09:50

Sample wt/vol: 250(mL) | Date Analyzed: 07/09/2018 17:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335290 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	66		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-335270/5-A

Matrix: Water Date Extracted: 07/09/2018 11:38

Lab File ID:(1) R071008.D Lab File ID:(2)

Date Analyzed:(1) 07/10/2018 18:10 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
DMW-17S-070518	240-98135-2	07/10/2018 18:37	
	LCS 240-335270/6-A	07/11/2018 17:40	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335270/5-A

Matrix: Water | Lab File ID: R071008.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/09/2018 11:38

Sample wt/vol: 250(mL) | Date Analyzed: 07/10/2018 18:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 335544 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	78		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-335741/5-A

Matrix: Water Date Extracted: 07/11/2018 13:21

Lab File ID:(1) R071312.D Lab File ID:(2)

Date Analyzed:(1) 07/13/2018 20:54 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-335741/6-A	07/13/2018 21:21	
MSA-MW-18S-071018	240-98320-1	07/13/2018 21:49	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-335741/5-A

Matrix: Water | Lab File ID: R071312.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/11/2018 13:21

Sample wt/vol: 250(mL) | Date Analyzed: 07/13/2018 20:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336175 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	92		37-130

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: MB 240-336332/3-A

Matrix: Water Date Extracted: 07/16/2018 07:53

Lab File ID:(1) R071708.D Lab File ID:(2)

Date Analyzed:(1) 07/17/2018 18:52 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) Rxi-5HT ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-336332/4-A	07/17/2018 19:19	
DMW-5S-071018	240-98352-2	07/17/2018 20:41	
DMW-5S-071018 MS	240-98352-2 MS	07/17/2018 21:08	
DMW-5S-071018 MSD	240-98352-2 MSD	07/17/2018 21:35	
MSA-MW-38S-071018	240-98352-4	07/17/2018 22:03	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-336332/3-A

Matrix: Water | Lab File ID: R071708.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3520C | Date Extracted: 07/16/2018 07:53

Sample wt/vol: 250(mL) | Date Analyzed: 07/17/2018 18:52

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: Rxi-5HT ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 336687 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	U	500	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl (Surr)	84		37-130

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: STD3 240-318691/9 Date Analyzed: 03/15/2018 18:48

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R0031509.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD3 240-318691/9 ICRT		03/15/2018 18:48	R0031509.D	8.42		

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCV 240-335290/7 Date Analyzed: 07/09/2018 16:40

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R070907.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-335290/7 CCVRT		07/09/2018 16:40	R070907.D	8.42		
MB 240-334809/13-A		07/09/2018 17:08	R070908.D	8.42		
LCS 240-334809/14-A		07/09/2018 17:35	R070909.D	8.42		
CCV 240-335290/17		07/09/2018 21:16	R070917.D	8.42		
240-98038-4	DMW-16S-070218	07/10/2018 00:01	R070923.D	8.42		
240-98038-5	MSA-MW-53S-070218	07/10/2018 00:28	R070924.D	8.42		
240-98038-7	MSA-MW-39S-070218	07/10/2018 00:55	R070925.D	8.42		
240-98038-8	MSA-MW-43S-070218	07/10/2018 01:23	R070926.D	8.42		
CCV 240-335290/27		07/10/2018 01:50	R070927.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCV 240-335544/7 Date Analyzed: 07/10/2018 17:42

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R071007.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-335544/7 CCVRT		07/10/2018 17:42	R071007.D	8.42		
MB 240-335270/5-A		07/10/2018 18:10	R071008.D	8.42		
240-98135-2	DMW-17S-070518	07/10/2018 18:37	R071009.D	8.42		
CCV 240-335544/16		07/10/2018 21:50	R071016.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCV 240-335735/7 Date Analyzed: 07/11/2018 17:13

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R071107.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-335735/7 CCVRT		07/11/2018 17:13	R071107.D	8.42		
LCS 240-335270/6-A		07/11/2018 17:40	R071108.D	8.42		
CCV 240-335735/12		07/11/2018 19:29	R071112.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCV 240-336175/7 Date Analyzed: 07/13/2018 18:36

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R071307.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-336175/7 CCVRT		07/13/2018 18:36	R071307.D	8.42		
CCV 240-336175/11		07/13/2018 20:26	R071311.D	8.42		
MB 240-335741/5-A		07/13/2018 20:54	R071312.D	8.42		
LCS 240-335741/6-A		07/13/2018 21:21	R071313.D	8.42		
240-98320-1	MSA-MW-18S-071018	07/13/2018 21:49	R071314.D	8.42		
CCV 240-336175/18		07/13/2018 23:38	R071318.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Sample No.: CCV 240-336687/7 Date Analyzed: 07/17/2018 18:24

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID (Standard): R071707.D Heated Purge: (Y/N) N

Calibration ID: 44112

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				8.42		
UPPER LIMIT				8.52		
LOWER LIMIT				8.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCV 240-336687/7 CCVRT		07/17/2018 18:24	R071707.D	8.42		
MB 240-336332/3-A		07/17/2018 18:52	R071708.D	8.42		
LCS 240-336332/4-A		07/17/2018 19:19	R071709.D	8.42		
240-98352-2	DMW-5S-071018	07/17/2018 20:41	R071712.D	8.42		
240-98352-2 MS	DMW-5S-071018 MS	07/17/2018 21:08	R071713.D	8.42		
240-98352-2 MSD	DMW-5S-071018 MSD	07/17/2018 21:35	R071714.D	8.42		
240-98352-4	MSA-MW-38S-071018	07/17/2018 22:03	R071715.D	8.42		
CCV 240-336687/17		07/17/2018 22:58	R071717.D	8.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
Diesel Range Organics [C10 - C28]	7.578	7.578	7.578	7.578	7.578						3.364 - 11.792	7.578
o-Terphenyl (Surr)	8.427	8.425	8.424	8.427	8.432						8.327 - 8.527	8.427

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel Range Organics [C10 - C28]	888076 857435	815024	840376	851754	Ave		850533.076				3.1		20.0			
o-Terphenyl (Surr)	948489 1037079	1016188	976223	1015182	Ave		998632.175				3.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 240-98038-1 Analy Batch No.: 318691

SDG No.:

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2018 17:54 Calibration End Date: 03/15/2018 19:43 Calibration ID: 44112

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-318691/7	R0031507.D
Level 2	STD2 240-318691/8	R0031508.D
Level 3	STD3 240-318691/9	R0031509.D
Level 4	STD4 240-318691/10	R0031510.D
Level 5	STD5 240-318691/11	R0031511.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel Range Organics [C10 - C28]	Ave	17761523	32600967	84037623	170350754	342974021	20.0	40.0	100	200	400
o-Terphenyl (Surr)	Ave	1517582	3251803	7809784	16242913	33186516	1.60	3.20	8.00	16.0	32.0

Curve Type Legend:
Ave = Average

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	886050		104000	100000	4.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 240-318691/12 Calibration Date: 03/15/2018 20:10

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R0031512.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.36	11.79

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/7 Calibration Date: 07/09/2018 16:40

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070907.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	834285		98100	100000	-1.9	20.0
o-Terphenyl (Surr)	Ave	998632	1026587		8220	8000	2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/7 Calibration Date: 07/09/2018 16:40

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070907.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/17 Calibration Date: 07/09/2018 21:16

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070917.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	857169		101000	100000	0.8	20.0
o-Terphenyl (Surr)	Ave	998632	1068522		8560	8000	7.0	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/17 Calibration Date: 07/09/2018 21:16

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070917.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/27 Calibration Date: 07/10/2018 01:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070927.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	901935		106000	100000	6.0	20.0
o-Terphenyl (Surr)	Ave	998632	1043494		8360	8000	4.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335290/27 Calibration Date: 07/10/2018 01:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R070927.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335544/7 Calibration Date: 07/10/2018 17:42

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	856461		101000	100000	0.7	20.0
o-Terphenyl (Surr)	Ave	998632	998447		8000	8000	-0.0	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335544/7 Calibration Date: 07/10/2018 17:42

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071007.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335544/16 Calibration Date: 07/10/2018 21:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071016.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	889175		105000	100000	4.5	20.0
o-Terphenyl (Surr)	Ave	998632	1096583		8780	8000	9.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335544/16 Calibration Date: 07/10/2018 21:50

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335735/7 Calibration Date: 07/11/2018 17:13

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071107.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	890204		105000	100000	4.7	20.0
o-Terphenyl (Surr)	Ave	998632	1069142		8560	8000	7.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335735/7 Calibration Date: 07/11/2018 17:13

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071107.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335735/12 Calibration Date: 07/11/2018 19:29

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071112.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	907478		107000	100000	6.7	20.0
o-Terphenyl (Surr)	Ave	998632	1083245		8680	8000	8.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-335735/12 Calibration Date: 07/11/2018 19:29

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071112.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/7 Calibration Date: 07/13/2018 18:36

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071307.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	908607		107000	100000	6.8	20.0
o-Terphenyl (Surr)	Ave	998632	1079987		8650	8000	8.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/7 Calibration Date: 07/13/2018 18:36

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071307.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/11 Calibration Date: 07/13/2018 20:26

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071311.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	937843		110000	100000	10.3	20.0
o-Terphenyl (Surr)	Ave	998632	1119950		8970	8000	12.1	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/11 Calibration Date: 07/13/2018 20:26

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071311.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/18 Calibration Date: 07/13/2018 23:38

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071318.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	897439		106000	100000	5.5	20.0
o-Terphenyl (Surr)	Ave	998632	1153807		9240	8000	15.5	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336175/18 Calibration Date: 07/13/2018 23:38

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071318.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336687/7 Calibration Date: 07/17/2018 18:24

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071707.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	890663		105000	100000	4.7	20.0
o-Terphenyl (Surr)	Ave	998632	1022600		8190	8000	2.4	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336687/7 Calibration Date: 07/17/2018 18:24

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071707.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336687/17 Calibration Date: 07/17/2018 22:58

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071717.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel Range Organics [C10 - C28]	Ave	850533	944954		111000	100000	11.1	20.0
o-Terphenyl (Surr)	Ave	998632	1074343		8610	8000	7.6	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 240-336687/17 Calibration Date: 07/17/2018 22:58

Instrument ID: A2HP14R Calib Start Date: 03/15/2018 17:54

GC Column: Rxi-5HT ID: 0.53(mm) Calib End Date: 03/15/2018 19:43

Lab File ID: R071717.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.78
o-Terphenyl (Surr)	8.42	8.32	8.52

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: RTC 240-335290/6 Date Analyzed: 07/09/2018 16:13

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R070906.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: RTC 240-335544/6 Date Analyzed: 07/10/2018 17:14

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R071006.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: RTC 240-336175/6 Date Analyzed: 07/13/2018 18:08

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R071306.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.57	3.36	11.78

FORM VII
DIESEL RANGE ORGANICS RETENTION TIME CALIBRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: RTC 240-336687/6 Date Analyzed: 07/17/2018 17:57

Instrument ID: A2HP14R GC Column: Rxi-5HT ID: 0.53(mm)

Lab File ID: R071706.D

Analyte	RT	RT WINDOW	
		FROM	TO
Diesel Range Organics [C10 - C28]	7.58	3.37	11.78

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 03/15/2018 17:26

Analysis Batch Number: 318691 End Date: 03/15/2018 22:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-318691/6		03/15/2018 17:26	1		Rxi-5HT 0.53(mm)
STD1 240-318691/7 IC		03/15/2018 17:54	1	R0031507.D	Rxi-5HT 0.53(mm)
STD2 240-318691/8 IC		03/15/2018 18:21	1	R0031508.D	Rxi-5HT 0.53(mm)
STD3 240-318691/9 ICRT		03/15/2018 18:48	1	R0031509.D	Rxi-5HT 0.53(mm)
STD4 240-318691/10 IC		03/15/2018 19:15	1	R0031510.D	Rxi-5HT 0.53(mm)
STD5 240-318691/11 IC		03/15/2018 19:43	1	R0031511.D	Rxi-5HT 0.53(mm)
ICV 240-318691/12		03/15/2018 20:10	1	R0031512.D	Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 20:37	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:04	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		03/15/2018 21:59	1		Rxi-5HT 0.53(mm)
CCV 240-318691/17		03/15/2018 22:26	1		Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/09/2018 16:13

Analysis Batch Number: 335290 End Date: 07/10/2018 01:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-335290/6		07/09/2018 16:13	1	R070906.D	Rxi-5HT 0.53(mm)
CCV 240-335290/7 CCVRT		07/09/2018 16:40	1	R070907.D	Rxi-5HT 0.53(mm)
MB 240-334809/13-A		07/09/2018 17:08	1	R070908.D	Rxi-5HT 0.53(mm)
LCS 240-334809/14-A		07/09/2018 17:35	1	R070909.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 18:03	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 18:31	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 18:58	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 19:26	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 19:53	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 20:21	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 20:48	1		Rxi-5HT 0.53(mm)
CCV 240-335290/17		07/09/2018 21:16	1	R070917.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 21:43	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 22:11	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 22:38	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 23:06	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/09/2018 23:33	1		Rxi-5HT 0.53(mm)
240-98038-4		07/10/2018 00:01	1	R070923.D	Rxi-5HT 0.53(mm)
240-98038-5		07/10/2018 00:28	1	R070924.D	Rxi-5HT 0.53(mm)
240-98038-7		07/10/2018 00:55	1	R070925.D	Rxi-5HT 0.53(mm)
240-98038-8		07/10/2018 01:23	1	R070926.D	Rxi-5HT 0.53(mm)
CCV 240-335290/27		07/10/2018 01:50	1	R070927.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/10/2018 17:14

Analysis Batch Number: 335544 End Date: 07/10/2018 21:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-335544/6		07/10/2018 17:14	1	R071006.D	Rxi-5HT 0.53(mm)
CCV 240-335544/7 CCVRT		07/10/2018 17:42	1	R071007.D	Rxi-5HT 0.53(mm)
MB 240-335270/5-A		07/10/2018 18:10	1	R071008.D	Rxi-5HT 0.53(mm)
240-98135-2		07/10/2018 18:37	1	R071009.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 19:05	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 19:33	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 20:00	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 20:28	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 20:55	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/10/2018 21:23	1		Rxi-5HT 0.53(mm)
CCV 240-335544/16		07/10/2018 21:50	1	R071016.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/11/2018 16:45

Analysis Batch Number: 335735 End Date: 07/11/2018 19:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-335735/6		07/11/2018 16:45	1		Rxi-5HT 0.53(mm)
CCV 240-335735/7 CCVRT		07/11/2018 17:13	1	R071107.D	Rxi-5HT 0.53(mm)
LCS 240-335270/6-A		07/11/2018 17:40	1	R071108.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/11/2018 18:07	100		Rxi-5HT 0.53(mm)
ZZZZZ		07/11/2018 18:35	50		Rxi-5HT 0.53(mm)
ZZZZZ		07/11/2018 19:02	2		Rxi-5HT 0.53(mm)
CCV 240-335735/12		07/11/2018 19:29	1	R071112.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/13/2018 18:08

Analysis Batch Number: 336175 End Date: 07/13/2018 23:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-336175/6		07/13/2018 18:08	1	R071306.D	Rxi-5HT 0.53(mm)
CCV 240-336175/7 CCVRT		07/13/2018 18:36	1	R071307.D	Rxi-5HT 0.53(mm)
CCV 240-336175/11		07/13/2018 20:26	1	R071311.D	Rxi-5HT 0.53(mm)
MB 240-335741/5-A		07/13/2018 20:54	1	R071312.D	Rxi-5HT 0.53(mm)
LCS 240-335741/6-A		07/13/2018 21:21	1	R071313.D	Rxi-5HT 0.53(mm)
240-98320-1		07/13/2018 21:49	1	R071314.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/13/2018 22:16	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/13/2018 22:43	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/13/2018 23:11	1		Rxi-5HT 0.53(mm)
CCV 240-336175/18		07/13/2018 23:38	1	R071318.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: A2HP14R Start Date: 07/17/2018 17:57

Analysis Batch Number: 336687 End Date: 07/17/2018 22:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 240-336687/6		07/17/2018 17:57	1	R071706.D	Rxi-5HT 0.53(mm)
CCV 240-336687/7 CCVRT		07/17/2018 18:24	1	R071707.D	Rxi-5HT 0.53(mm)
MB 240-336332/3-A		07/17/2018 18:52	1	R071708.D	Rxi-5HT 0.53(mm)
LCS 240-336332/4-A		07/17/2018 19:19	1	R071709.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/17/2018 19:46	1		Rxi-5HT 0.53(mm)
ZZZZZ		07/17/2018 20:13	1		Rxi-5HT 0.53(mm)
240-98352-2		07/17/2018 20:41	1	R071712.D	Rxi-5HT 0.53(mm)
240-98352-2 MS		07/17/2018 21:08	1	R071713.D	Rxi-5HT 0.53(mm)
240-98352-2 MSD		07/17/2018 21:35	1	R071714.D	Rxi-5HT 0.53(mm)
240-98352-4		07/17/2018 22:03	1	R071715.D	Rxi-5HT 0.53(mm)
ZZZZZ		07/17/2018 22:30	1		Rxi-5HT 0.53(mm)
CCV 240-336687/17		07/17/2018 22:58	1	R071717.D	Rxi-5HT 0.53(mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 334809 Batch Start Date: 07/05/18 13:30 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date: 07/06/18 07:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00089	exOTPSURRW 00030
MB 240-334809/13		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-334809/14		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL
240-98038-H-4	DMW-16S-070218	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL
240-98038-F-5	MSA-MW-53S-070218	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-98038-F-7	MSA-MW-39S-070218	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL
240-98038-G-8	MSA-MW-43S-070218	3520C, 8015C	T	250 mL	5 mL	7 SU	2 SU		0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335270 Batch Start Date: 07/09/18 11:38 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00089	exOTPSURRW 00030
240-98135-I-2	DMW-17S-070518	3520C, 8015C	T	280 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-335270/5		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-335270/6		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
240-98135-I-2	DMW-17S-070518	3520C, 8015C	T						
MB 240-335270/5		3520C, 8015C							
LCS 240-335270/6		3520C, 8015C		Dried out; Coming over 7/11					

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 335741 Batch Start Date: 07/11/18 13:21 Batch Analyst: Dillon, William K

Batch Method: 3520C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00089	exOTPSURRW 00030
240-98320-N-1	MSA-MW-18S-071018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
MB 240-335741/5		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-335741/6		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	KYLEDILLON
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Batch Number: 336332 Batch Start Date: 07/16/18 13:00 Batch Analyst: Earle, Steve

Batch Method: 3520C Batch End Date: 07/17/18 07:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	exDIESELSPKw 00091	exOTPSURRW 00030
MB 240-336332/3		3520C, 8015C		250 mL	5 mL	7 SU	2 SU		0.2 mL
LCS 240-336332/4		3520C, 8015C		250 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL
240-98352-Z-2	DMW-5S-071018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU		0.2 mL
240-98352-Y-2 MS	DMW-5S-071018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL
240-98352-AA-2 MSD	DMW-5S-071018	3520C, 8015C	T	260 mL	5 mL	7 SU	2 SU	0.2 mL	0.2 mL
240-98352-I-4	MSA-MW-38S-071018	3520C, 8015C	T	270 mL	5 mL	7 SU	2 SU		0.2 mL

Batch Notes	
Acid Used for pH Adjustment ID	3597204
Analyst ID - Concentration	ELIZABETHBORDER JESSICATRUSHEL
Equipment ID - Concentration 1	Steam bath
Analyst ID - Extraction	STEVEEARLE
Na2SO4 ID	2548156
pH Indicator ID	2644944
Pipette/Syringe/Dispenser ID	9
Prep Solvent ID	3649906
Analyst ID - Spike Analyst	STEVEEARLE

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

COVER PAGE
METALS

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG No.:

Project: MSA GW 2018

Client Sample ID	Lab Sample ID
DMW-16D-070218	240-98038-2
DMW-16I-070218	240-98038-3
DMW-16S-070218	240-98038-4
MSA-MW-53S-070218	240-98038-5
MSA-MW-53I-070218	240-98038-6
MSA-MW-39S-070218	240-98038-7
MSA-MW-43S-070218	240-98038-8
DMW-17S-070518	240-98135-2
DMW-17I-070518	240-98135-3
MSA-MW-18I-070918	240-98264-2
MSA-MW-29D-070918	240-98264-3
MSA-MW-18S-071018	240-98320-1
DMW-5S-071018	240-98352-2
DMW-5I-071018	240-98352-3
MSA-MW-38S-071018	240-98352-4

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MT6500ICV_00045 Concentration Units: ug/L

CCV Source: MTICPCCV_00130

Analyte	ICV 240-335908/4 07/12/2018 07:50				CCV 240-335908/36 07/12/2018 10:55				CCV 240-335908/48 07/12/2018 11:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25000		25000	100	51200		50000	102	48700		50000	97
Magnesium	24800		25000	99	50500		50000	101	48000		50000	96
Potassium	24800		25000	99	51200		50000	102	50100		50000	100
SiO2, Silica	11700		10700	110	11600		10700	109	11500		10700	107
Sodium	24800		25000	99	51400		50000	103	49600		50000	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTTRCRIC_00059 Concentration Units: ug/L

CCV Source: MTTRCRIC_00059

Analyte	ICVL 240-335908/6 07/12/2018 07:59				CCVL 240-335908/134 07/12/2018 18:37							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4790	J	5000	96	4760	J	5000	95				
Magnesium	4770	J	5000	95	4490	J	5000	90				
Potassium	4750	J	5000	95	5090		5000	102				
SiO2, Silica	1030	J	1070	96	1000	J	1070	94				
Sodium	4730	J	5000	95	5050		5000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MT6500ICV_00045 Concentration Units: ug/L

CCV Source: MTICPCCV_00130

Analyte	ICV 240-336143/4 07/13/2018 10:22				CCV 240-336143/38 07/13/2018 13:03				CCV 240-336143/47 07/13/2018 13:46			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	25200		25000	101	50400		50000	101	49500		50000	99
Magnesium	24800		25000	99	49400		50000	99	48100		50000	96
Potassium	24700		25000	99	50300		50000	101	49800		50000	100
SiO2, Silica	11800		10700	110	11500		10700	108	11200		10700	105
Sodium	24800		25000	99	49600		50000	99	49200		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MT6500ICV_00045 Concentration Units: ug/L

CCV Source: MTICPCCV_00130

Analyte	CCV 240-336143/50 07/13/2018 14:00				CCV 240-336143/62 07/13/2018 14:57							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50200		50000	100	49900		50000	100				
Magnesium	48800		50000	98	48400		50000	97				
Potassium	50700		50000	101	50800		50000	102				
SiO2, Silica	11600		10700	108	11500		10700	107				
Sodium	50300		50000	101	50600		50000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTTRCRIC_00059 Concentration Units: ug/L

CCV Source: MTTRCRIC_00059

Analyte	ICVL 240-336143/6 07/13/2018 10:31				CCVL 240-336143/76 07/13/2018 16:03							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4810	J	5000	96	4840	J	5000	97				
Magnesium	4780	J	5000	96	4740	J	5000	95				
Potassium	4720	J	5000	94	4890	J	5000	98				
SiO2, Silica	1070	J	1070	100	1010	J	1070	94				
Sodium	4710	J	5000	94	4970	J	5000	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336326/7 07/14/2018 10:17				CCV 240-336326/86 07/14/2018 16:09				CCV 240-336326/93 07/14/2018 16:40			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	38.9		40.0	97	50.6		50.0	101	51.9		50.0	104
Dissolved Iron	10500		10000	105	13000		12500	104	12900		12500	103
Antimony	40.2		40.0	101	50.3		50.0	101	50.5		50.0	101
Arsenic	41.5		40.0	104	51.4		50.0	103	50.1		50.0	100
Barium	38.8		40.0	97	48.9		50.0	98	49.2		50.0	98
Cadmium	39.3		40.0	98	48.9		50.0	98	48.2		50.0	96
Chromium	42.0		40.0	105	51.9		50.0	104	51.0		50.0	102
Cobalt	41.2		40.0	103	50.5		50.0	101	49.5		50.0	99
Copper	43.0		40.0	107	52.2		50.0	104	50.8		50.0	102
Lead	42.5		40.0	106	51.7		50.0	103	49.2		50.0	98
Manganese	213		200	106	267		250	107	255		250	102
Molybdenum	40.7		40.0	102	52.0		50.0	104	51.4		50.0	103
Nickel	40.9		40.0	102	50.9		50.0	102	49.6		50.0	99
Selenium	42.0		40.0	105	51.7		50.0	103	50.8		50.0	102
Silver	40.2		40.0	101	50.0		50.0	100	49.9		50.0	100
Thallium	41.7		40.0	104	52.0		50.0	104	49.3		50.0	99
Vanadium	41.4		40.0	104	51.4		50.0	103	50.3		50.0	101
Zinc	41.0		40.0	102	49.8		50.0	100	48.6		50.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336326/9 07/14/2018 10:26				CCVL 240-336326/95 07/14/2018 16:49							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.817	J	1.00	82	0.878	J	1.00	88				
Dissolved Iron	115		100	115	111		100	111				
Antimony	1.97	J	2.00	98	1.92	J	2.00	96				
Arsenic	5.12		5.00	102	5.24		5.00	105				
Barium	4.80	J	5.00	96	4.86	J	5.00	97				
Cadmium	0.977	J	1.00	98	0.936	J	1.00	94				
Chromium	2.06		2.00	103	2.02		2.00	101				
Cobalt	1.05		1.00	105	1.01		1.00	101				
Copper	2.16		2.00	108	2.08		2.00	104				
Lead	1.07		1.00	107	0.991	J	1.00	99				
Manganese	4.70	J	5.00	94	4.53	J	5.00	91				
Molybdenum	5.20		5.00	104	4.89	J	5.00	98				
Nickel	2.06		2.00	103	1.86	J	2.00	93				
Selenium	5.29		5.00	106	5.60		5.00	112				
Silver	1.03		1.00	103	0.942	J	1.00	94				
Thallium	1.09		1.00	109	1.03		1.00	103				
Vanadium	5.08		5.00	102	4.86	J	5.00	97				
Zinc	18.8	J	20.0	94	18.0	J	20.0	90				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-336575/7 07/16/2018 09:48				CCV 240-336575/175 07/16/2018 22:17				CCV 240-336575/187 07/16/2018 23:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.5		40.0	104	50.9		50.0	102	50.7		50.0	101
Arsenic	39.9		40.0	100	53.5		50.0	107	51.9		50.0	104
Barium	39.9		40.0	100	50.0		50.0	100	51.2		50.0	102
Beryllium	39.4		40.0	99	51.1		50.0	102	49.0		50.0	98
Cadmium	40.2		40.0	101	49.0		50.0	98	49.1		50.0	98
Chromium	39.9		40.0	100	52.3		50.0	105	51.1		50.0	102
Cobalt	40.2		40.0	100	53.9		50.0	108	52.6		50.0	105
Dissolved Iron	9940		10000	99	13300		12500	106	12900		12500	104
Dissolved Lead	41.3		40.0	103	50.1		50.0	100	48.8		50.0	98
Dissolved Manganese	199		200	100	250		250	100	245		250	98
Dissolved Molybdenum	40.8		40.0	102	47.8		50.0	96	48.3		50.0	97
Dissolved Nickel	39.8		40.0	99	53.8		50.0	108	52.5		50.0	105
Dissolved Selenium	40.2		40.0	101	51.3		50.0	103	50.7		50.0	101
Dissolved Silver	40.1		40.0	100	47.7		50.0	95	48.7		50.0	97
Dissolved Thallium	40.9		40.0	102	49.9		50.0	100	48.6		50.0	97
Dissolved Vanadium	39.7		40.0	99	51.3		50.0	103	50.6		50.0	101
Zinc	40.0		40.0	100	53.3		50.0	107	51.7		50.0	103
Copper	41.5		40.0	104	45.0		50.0	90	45.4		50.0	91

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336575/7 07/16/2018 09:48				CCV 240-336575/163 07/16/2018 21:24							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.5		40.0	104	50.9		50.0	102				
Arsenic	39.9		40.0	100	53.1		50.0	106				
Barium	39.9		40.0	100	50.3		50.0	101				
Beryllium	39.4		40.0	99	52.5		50.0	105				
Cadmium	40.2		40.0	101	48.7		50.0	97				
Chromium	39.9		40.0	100	51.7		50.0	103				
Cobalt	40.2		40.0	100	53.7		50.0	107				
Dissolved Iron	9940		10000	99	13200		12500	105				
Dissolved Lead	41.3		40.0	103	49.6		50.0	99				
Dissolved Manganese	199		200	100	250		250	100				
Dissolved Molybdenum	40.8		40.0	102	48.7		50.0	97				
Dissolved Nickel	39.8		40.0	99	53.7		50.0	107				
Dissolved Selenium	40.2		40.0	101	52.0		50.0	104				
Dissolved Silver	40.1		40.0	100	48.9		50.0	98				
Dissolved Thallium	40.9		40.0	102	49.2		50.0	98				
Dissolved Vanadium	39.7		40.0	99	50.8		50.0	102				
Zinc	40.0		40.0	100	52.8		50.0	106				
Copper	41.5		40.0	104	46.6		50.0	93				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336575/14 07/16/2018 10:20				CCVL 240-336575/196 07/16/2018 23:52							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.97	J	2.00	98	2.01		2.00	100				
Arsenic	5.07		5.00	101	5.22		5.00	104				
Barium	4.76	J	5.00	95	5.15		5.00	103				
Beryllium	0.744	J	1.00	74	0.853	J	1.00	85				
Cadmium	0.927	J	1.00	93	0.995	J	1.00	100				
Chromium	1.93	J	2.00	96	1.96	J	2.00	98				
Cobalt	1.01		1.00	101	1.09		1.00	109				
Dissolved Iron	110		100	110	116		100	116				
Dissolved Lead	1.02		1.00	102	1.05		1.00	105				
Dissolved Manganese	4.51	J	5.00	90	4.66	J	5.00	93				
Dissolved Molybdenum	5.15		5.00	103	4.70	J	5.00	94				
Dissolved Nickel	1.91	J	2.00	95	1.88	J	2.00	94				
Dissolved Selenium	5.17		5.00	103	5.25		5.00	105				
Dissolved Silver	0.959	J	1.00	96	0.938	J	1.00	94				
Dissolved Thallium	1.03		1.00	103	0.975	J	1.00	98				
Dissolved Vanadium	4.87	J	5.00	97	4.87	J	5.00	97				
Zinc	18.3	J	20.0	91	19.7	J	20.0	99				
Copper	1.96	J	2.00	98	2.21		2.00	111				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-336877/7 07/17/2018 11:09				CCV 240-336877/103 07/17/2018 18:19				CCV 240-336877/115 07/17/2018 19:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.2		40.0	100	48.2		50.0	96	48.0		50.0	96
Arsenic	40.8		40.0	102	51.1		50.0	102	50.7		50.0	101
Barium	40.6		40.0	101	51.0		50.0	102	50.3		50.0	101
Cadmium	41.3		40.0	103	51.3		50.0	103	50.5		50.0	101
Chromium	40.2		40.0	100	50.3		50.0	101	49.9		50.0	100
Cobalt	40.6		40.0	101	51.5		50.0	103	51.2		50.0	102
Copper	41.7		40.0	104	52.1		50.0	104	52.0		50.0	104
Dissolved Iron	9960		10000	100	12600		12500	101	12600		12500	101
Dissolved Lead	41.0		40.0	103	47.1		50.0	94	47.4		50.0	95
Dissolved Manganese	194		200	97	259		250	104	255		250	102
Dissolved Molybdenum	41.2		40.0	103	50.5		50.0	101	49.4		50.0	99
Dissolved Nickel	40.3		40.0	101	51.4		50.0	103	50.9		50.0	102
Dissolved Selenium	39.9		40.0	100	50.9		50.0	102	50.6		50.0	101
Dissolved Silver	41.1		40.0	103	49.7		50.0	99	48.9		50.0	98
Dissolved Thallium	40.0		40.0	100	47.1		50.0	94	47.5		50.0	95
Dissolved Vanadium	39.9		40.0	100	49.6		50.0	99	48.8		50.0	98
Zinc	41.9		40.0	105	51.3		50.0	103	50.2		50.0	100
Beryllium	40.5		40.0	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-336877/137 07/17/2018 20:50				CCV 240-336877/149 07/17/2018 21:44				CCV 240-336877/171 07/17/2018 23:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	48.0		50.0	96	46.9		50.0	94	46.7		50.0	93
Arsenic	51.6		50.0	103	52.3		50.0	105	53.4		50.0	107
Barium	51.4		50.0	103	50.8		50.0	102	51.8		50.0	104
Cadmium	50.8		50.0	102	51.0		50.0	102	51.3		50.0	103
Chromium	50.4		50.0	101	51.4		50.0	103	51.4		50.0	103
Cobalt	51.6		50.0	103	52.7		50.0	105	53.4		50.0	107
Copper	52.4		50.0	105	53.9		50.0	108	54.1		50.0	108
Dissolved Iron	12700		12500	101	13100		12500	105	13100		12500	105
Dissolved Lead	46.8		50.0	94	47.9		50.0	96	47.0		50.0	94
Dissolved Manganese	255		250	102	263		250	105	252		250	101
Dissolved Molybdenum	50.4		50.0	101	49.3		50.0	99	49.5		50.0	99
Dissolved Nickel	51.6		50.0	103	52.5		50.0	105	53.1		50.0	106
Dissolved Selenium	51.6		50.0	103	50.9		50.0	102	52.6		50.0	105
Dissolved Silver	49.2		50.0	98	49.2		50.0	98	49.2		50.0	98
Dissolved Thallium	46.8		50.0	94	48.3		50.0	97	47.0		50.0	94
Dissolved Vanadium	49.7		50.0	99	50.4		50.0	101	50.4		50.0	101
Zinc	51.3		50.0	103	52.4		50.0	105	53.1		50.0	106
Beryllium	45.2		50.0	90					45.1		50.0	90

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-336877/183 07/18/2018 00:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	46.8		50.0	94								
Arsenic	52.9		50.0	106								
Barium	51.6		50.0	103								
Cadmium	51.5		50.0	103								
Chromium	51.1		50.0	102								
Cobalt	52.7		50.0	105								
Copper	53.8		50.0	108								
Dissolved Iron	13000		12500	104								
Dissolved Lead	48.0		50.0	96								
Dissolved Manganese	245		250	98								
Dissolved Molybdenum	49.7		50.0	99								
Dissolved Nickel	52.7		50.0	105								
Dissolved Selenium	53.1		50.0	106								
Dissolved Silver	49.6		50.0	99								
Dissolved Thallium	47.9		50.0	96								
Dissolved Vanadium	50.0		50.0	100								
Zinc	53.0		50.0	106								
Beryllium												

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-336877/7 07/17/2018 11:09				CCV 240-336877/91 07/17/2018 17:25				CCV 240-336877/123 07/17/2018 19:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.2		40.0	100	48.3		50.0	97	47.9		50.0	96
Arsenic	40.8		40.0	102	50.8		50.0	102	50.7		50.0	101
Barium	40.6		40.0	101	51.3		50.0	103	48.7		50.0	97
Cadmium	41.3		40.0	103	51.2		50.0	102	50.4		50.0	101
Chromium	40.2		40.0	100	50.2		50.0	100	49.8		50.0	100
Cobalt	40.6		40.0	101	51.1		50.0	102	50.5		50.0	101
Copper	41.7		40.0	104	51.8		50.0	104	51.8		50.0	104
Dissolved Iron	9960		10000	100	12500		12500	100	12600		12500	101
Dissolved Lead	41.0		40.0	103	48.0		50.0	96	49.2		50.0	98
Dissolved Manganese	194		200	97	257		250	103	251		250	101
Dissolved Molybdenum	41.2		40.0	103	49.7		50.0	99	50.5		50.0	101
Dissolved Nickel	40.3		40.0	101	50.6		50.0	101	50.8		50.0	102
Dissolved Selenium	39.9		40.0	100	50.1		50.0	100	49.7		50.0	99
Dissolved Silver	41.1		40.0	103	49.3		50.0	99	49.5		50.0	99
Dissolved Thallium	40.0		40.0	100	47.6		50.0	95	48.7		50.0	97
Dissolved Vanadium	39.9		40.0	100	49.5		50.0	99	48.8		50.0	98
Zinc	41.9		40.0	105	50.5		50.0	101	50.5		50.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	CCV 240-336877/159 07/17/2018 22:28											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	47.3		50.0	95								
Arsenic	52.6		50.0	105								
Barium	51.6		50.0	103								
Cadmium	51.9		50.0	104								
Chromium	51.3		50.0	103								
Cobalt	52.6		50.0	105								
Copper	53.5		50.0	107								
Dissolved Iron	13100		12500	105								
Dissolved Lead	46.9		50.0	94								
Dissolved Manganese	261		250	105								
Dissolved Molybdenum	49.9		50.0	100								
Dissolved Nickel	52.4		50.0	105								
Dissolved Selenium	51.4		50.0	103								
Dissolved Silver	49.2		50.0	98								
Dissolved Thallium	46.9		50.0	94								
Dissolved Vanadium	50.5		50.0	101								
Zinc	52.5		50.0	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-336877/9 07/17/2018 11:18				CCVL 240-336877/125 07/17/2018 19:57				CCVL 240-336877/187 07/18/2018 00:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	1.97	J	2.00	98	1.97	J	2.00	99	1.88	J	2.00	94
Arsenic	4.89	J	5.00	98	5.49		5.00	110	5.45		5.00	109
Barium	4.95	J	5.00	99	4.98	J	5.00	100	4.92	J	5.00	98
Cadmium	1.03		1.00	103	1.02		1.00	102	1.03		1.00	103
Chromium	1.89	J	2.00	94	1.93	J	2.00	96	2.00		2.00	100
Cobalt	0.984	J	1.00	98	1.04		1.00	104	1.06		1.00	106
Copper	2.03		2.00	102	2.38		2.00	119	2.31		2.00	115
Dissolved Iron	103		100	103	101		100	101	106		100	106
Dissolved Lead	1.05		1.00	105	1.09		1.00	109	1.04		1.00	104
Dissolved Manganese	4.36	J	5.00	87	4.33	J	5.00	87	4.51	J	5.00	90
Dissolved Molybdenum	5.02		5.00	100	4.88	J	5.00	98	4.85	J	5.00	97
Dissolved Nickel	1.78	J	2.00	89	1.55	J	2.00	77	1.52	J	2.00	76
Dissolved Selenium	4.84	J	5.00	97	5.24		5.00	105	5.77		5.00	115
Dissolved Silver	0.975	J	1.00	98	0.968	J	1.00	97	0.981	J	1.00	98
Dissolved Thallium	1.03		1.00	103	1.01		1.00	101	0.991	J	1.00	99
Dissolved Vanadium	4.87	J	5.00	97	4.91	J	5.00	98	4.96	J	5.00	99
Zinc	19.3	J	20.0	97	20.6		20.0	103	22.0		20.0	110
Beryllium	0.831	J	1.00	83	0.782	J	1.00	78	0.807	J	1.00	81

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-337019/7 07/18/2018 11:11				CCV 240-337019/39 07/18/2018 13:41							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Beryllium	41.1		40.0	103	49.2		50.0	98				
Dissolved Iron	10200		10000	102	12400		12500	99				
Antimony	41.9		40.0	105	48.8		50.0	98				
Arsenic	40.8		40.0	102	47.9		50.0	96				
Barium	39.7		40.0	99	46.8		50.0	94				
Cadmium	40.9		40.0	102	47.2		50.0	94				
Chromium	40.8		40.0	102	48.5		50.0	97				
Cobalt	41.2		40.0	103	48.6		50.0	97				
Copper	42.2		40.0	105	49.5		50.0	99				
Lead	43.2		40.0	108	47.7		50.0	95				
Manganese	199		200	99	241		250	96				
Molybdenum	41.2		40.0	103	50.2		50.0	100				
Nickel	40.9		40.0	102	48.5		50.0	97				
Selenium	40.4		40.0	101	48.4		50.0	97				
Silver	40.2		40.0	101	48.0		50.0	96				
Thallium	42.2		40.0	105	48.0		50.0	96				
Vanadium	40.1		40.0	100	48.1		50.0	96				
Zinc	41.4		40.0	103	47.5		50.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-337019/7 07/18/2018 11:11				CCV 240-337019/50 07/18/2018 14:30							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Beryllium	41.1		40.0	103	47.2		50.0	94				
Dissolved Iron	10200		10000	102	12200		12500	97				
Antimony	41.9		40.0	105	48.6		50.0	97				
Arsenic	40.8		40.0	102	47.7		50.0	95				
Barium	39.7		40.0	99	46.3		50.0	93				
Cadmium	40.9		40.0	102	47.0		50.0	94				
Chromium	40.8		40.0	102	48.0		50.0	96				
Cobalt	41.2		40.0	103	48.8		50.0	98				
Copper	42.2		40.0	105	49.4		50.0	99				
Lead	43.2		40.0	108	48.2		50.0	96				
Manganese	199		200	99	233		250	93				
Molybdenum	41.2		40.0	103	49.1		50.0	98				
Nickel	40.9		40.0	102	48.9		50.0	98				
Selenium	40.4		40.0	101	47.6		50.0	95				
Silver	40.2		40.0	101	47.5		50.0	95				
Thallium	42.2		40.0	105	48.1		50.0	96				
Vanadium	40.1		40.0	100	47.9		50.0	96				
Zinc	41.4		40.0	103	47.4		50.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-337019/9 07/18/2018 11:20				CCVL 240-337019/52 07/18/2018 14:39							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Dissolved Beryllium	0.862	J	1.00	86	1.12		1.00	112				
Dissolved Iron	109		100	109	101		100	101				
Antimony	2.04		2.00	102	2.03		2.00	102				
Arsenic	4.96	J	5.00	99	4.80	J	5.00	96				
Barium	4.83	J	5.00	97	4.76	J	5.00	95				
Cadmium	1.02		1.00	102	1.05		1.00	105				
Chromium	1.98	J	2.00	99	1.95	J	2.00	98				
Cobalt	1.03		1.00	103	1.05		1.00	105				
Copper	2.11		2.00	106	2.14		2.00	107				
Lead	1.07		1.00	107	1.10		1.00	110				
Manganese	4.85	J	5.00	97	4.58	J	5.00	92				
Molybdenum	5.22		5.00	104	5.01		5.00	100				
Nickel	1.78	J	2.00	89	1.5	U	2.00	73				
Selenium	5.30		5.00	106	5.02		5.00	100				
Silver	1.02		1.00	102	0.946	J	1.00	95				
Thallium	1.06		1.00	106	1.07		1.00	107				
Vanadium	5.07		5.00	101	4.87	J	5.00	97				
Zinc	19.1	J	20.0	95	19.0	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-337207/7 07/19/2018 12:41				CCV 240-337207/93 07/19/2018 19:13				CCV 240-337207/105 07/19/2018 20:06			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.5		40.0	99	55.9		50.0	112	48.6		50.0	97
Dissolved Iron	10100		10000	101	13200		12500	105	13300		12500	106
Antimony	42.3		40.0	106	54.1		50.0	108	53.5		50.0	107
Arsenic	41.5		40.0	104	55.1		50.0	110	55.0		50.0	110
Barium	41.7		40.0	104	54.8		50.0	110	52.9		50.0	106
Cadmium	41.9		40.0	105	52.1		50.0	104	52.0		50.0	104
Chromium	39.6		40.0	99	50.4		50.0	101	51.2		50.0	102
Cobalt	40.2		40.0	100	51.4		50.0	103	52.7		50.0	105
Copper	42.6		40.0	107	52.8		50.0	106	53.7		50.0	107
Lead	40.0		40.0	100	51.8		50.0	104	51.1		50.0	102
Manganese	207		200	103	267		250	107	271		250	108
Molybdenum	40.6		40.0	102	52.7		50.0	105	52.7		50.0	105
Nickel	40.2		40.0	101	47.9		50.0	96	49.0		50.0	98
Selenium	41.3		40.0	103	54.8		50.0	110	54.3		50.0	109
Silver	41.0		40.0	103	52.1		50.0	104	52.5		50.0	105
Thallium	39.3		40.0	98	51.9		50.0	104	51.2		50.0	102
Vanadium	39.1		40.0	98	51.1		50.0	102	51.9		50.0	104
Zinc	41.7		40.0	104	51.1		50.0	102	52.2		50.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-337207/7 07/19/2018 12:41				CCV 240-337207/81 07/19/2018 18:19							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	39.5		40.0	99	61.8		50.0	124				
Dissolved Iron	10100		10000	101	13000		12500	104				
Antimony	42.3		40.0	106	54.1		50.0	108				
Arsenic	41.5		40.0	104	53.9		50.0	108				
Barium	41.7		40.0	104	55.1		50.0	110				
Cadmium	41.9		40.0	105	52.1		50.0	104				
Chromium	39.6		40.0	99	49.2		50.0	98				
Cobalt	40.2		40.0	100	50.9		50.0	102				
Copper	42.6		40.0	107	51.6		50.0	103				
Lead	40.0		40.0	100	48.6		50.0	97				
Manganese	207		200	103	267		250	107				
Molybdenum	40.6		40.0	102	52.7		50.0	105				
Nickel	40.2		40.0	101	47.7		50.0	95				
Selenium	41.3		40.0	103	54.9		50.0	110				
Silver	41.0		40.0	103	52.8		50.0	106				
Thallium	39.3		40.0	98	49.0		50.0	98				
Vanadium	39.1		40.0	98	50.0		50.0	100				
Zinc	41.7		40.0	104	50.4		50.0	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00069

Analyte	ICVL 240-337207/9 07/19/2018 12:50				CCVL 240-337207/110 07/19/2018 20:28							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	1.01		1.00	101	0.958	J	1.00	96				
Dissolved Iron	108		100	108	114		100	114				
Antimony	2.15		2.00	108	2.13		2.00	106				
Arsenic	5.18		5.00	104	5.35		5.00	107				
Barium	5.25		5.00	105	5.35		5.00	107				
Cadmium	1.05		1.00	105	1.05		1.00	105				
Chromium	1.97	J	2.00	99	2.06		2.00	103				
Cobalt	1.06		1.00	106	1.10		1.00	110				
Copper	2.21		2.00	111	2.22		2.00	111				
Lead	1.08		1.00	108	1.04		1.00	104				
Manganese	5.20		5.00	104	5.27		5.00	105				
Molybdenum	5.11		5.00	102	5.06		5.00	101				
Nickel	2.00		2.00	100	2.05		2.00	103				
Selenium	5.34		5.00	107	5.59		5.00	112				
Silver	1.04		1.00	104	1.05		1.00	105				
Thallium	1.05		1.00	105	1.06		1.00	106				
Vanadium	4.83	J	5.00	97	4.96	J	5.00	99				
Zinc	21.0		20.0	105	20.9		20.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00083 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-337442/7 07/20/2018 21:36				CCV 240-337442/24 07/20/2018 22:53				CCV 240-337442/36 07/20/2018 23:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.7		40.0	104	52.9		50.0	106	53.2		50.0	106
Arsenic	40.6		40.0	102	52.2		50.0	104	51.2		50.0	102
Barium	40.8		40.0	102	51.4		50.0	103	52.2		50.0	104
Beryllium	38.6		40.0	96	70.2		50.0	140	49.0		50.0	98
Cadmium	41.2		40.0	103	51.4		50.0	103	51.6		50.0	103
Chromium	39.9		40.0	100	52.4		50.0	105	51.3		50.0	103
Cobalt	38.5		40.0	96	50.7		50.0	101	50.2		50.0	100
Copper	41.4		40.0	104	53.9		50.0	108	52.9		50.0	106
Dissolved Iron	9920		10000	99	13000		12500	104	12800		12500	102
Dissolved Lead	41.1		40.0	103	50.2		50.0	100	49.8		50.0	100
Dissolved Manganese	203		200	102	263		250	105	254		250	102
Dissolved Molybdenum	39.2		40.0	98	52.2		50.0	104	51.6		50.0	103
Dissolved Nickel	39.3		40.0	98	49.8		50.0	100	49.6		50.0	99
Dissolved Selenium	40.5		40.0	101	53.0		50.0	106	50.9		50.0	102
Dissolved Silver	39.3		40.0	98	51.0		50.0	102	50.7		50.0	101
Dissolved Thallium	40.6		40.0	102	50.6		50.0	101	49.7		50.0	99
Dissolved Vanadium	39.7		40.0	99	52.0		50.0	104	51.0		50.0	102
Zinc	38.2		40.0	96	48.7		50.0	97	48.0		50.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00083 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-337442/58 07/21/2018 01:25				CCV 240-337442/144 07/21/2018 07:48							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	53.0		50.0	106	52.8		50.0	106				
Arsenic	53.1		50.0	106	51.6		50.0	103				
Barium	52.2		50.0	104	52.9		50.0	106				
Beryllium	52.5		50.0	105	55.1		50.0	110				
Cadmium	51.9		50.0	104	51.2		50.0	102				
Chromium	52.3		50.0	105	50.7		50.0	101				
Cobalt	50.7		50.0	101	49.5		50.0	99				
Copper	53.5		50.0	107	51.9		50.0	104				
Dissolved Iron	13200		12500	106	12900		12500	103				
Dissolved Lead	50.7		50.0	101	49.4		50.0	99				
Dissolved Manganese	259		250	104	258		250	103				
Dissolved Molybdenum	51.2		50.0	102	50.9		50.0	102				
Dissolved Nickel	48.5		50.0	97	48.3		50.0	97				
Dissolved Selenium	53.1		50.0	106	52.1		50.0	104				
Dissolved Silver	50.4		50.0	101	50.6		50.0	101				
Dissolved Thallium	50.7		50.0	101	49.3		50.0	99				
Dissolved Vanadium	52.4		50.0	105	50.3		50.0	101				
Zinc	47.7		50.0	95	46.8		50.0	94				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00083 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	ICV 240-337442/7 07/20/2018 21:36				CCV 240-337442/46 07/21/2018 00:31				CCV 240-337442/132 07/21/2018 06:55			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	41.7		40.0	104	51.8		50.0	104	51.6		50.0	103
Arsenic	40.6		40.0	102	49.8		50.0	100	52.4		50.0	105
Barium	40.8		40.0	102	50.8		50.0	102	51.6		50.0	103
Beryllium	38.6		40.0	96	50.3		50.0	101	54.5		50.0	109
Cadmium	41.2		40.0	103	50.3		50.0	101	50.1		50.0	100
Chromium	39.9		40.0	100	50.2		50.0	100	51.4		50.0	103
Cobalt	38.5		40.0	96	48.7		50.0	97	50.4		50.0	101
Copper	41.4		40.0	104	51.2		50.0	102	53.3		50.0	107
Dissolved Iron	9920		10000	99	12500		12500	100	13000		12500	104
Dissolved Lead	41.1		40.0	103	49.6		50.0	99	49.8		50.0	100
Dissolved Manganese	203		200	102	247		250	99	268		250	107
Dissolved Molybdenum	39.2		40.0	98	50.1		50.0	100	51.1		50.0	102
Dissolved Nickel	39.3		40.0	98	48.2		50.0	96	47.5		50.0	95
Dissolved Selenium	40.5		40.0	101	50.0		50.0	100	52.5		50.0	105
Dissolved Silver	39.3		40.0	98	49.4		50.0	99	51.0		50.0	102
Dissolved Thallium	40.6		40.0	102	49.7		50.0	99	50.0		50.0	100
Dissolved Vanadium	39.7		40.0	99	49.7		50.0	99	50.8		50.0	102
Zinc	38.2		40.0	96	46.6		50.0	93	46.3		50.0	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00083 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00213

Analyte	CCV 240-337442/150 07/21/2018 08:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	51.7		50.0	103								
Arsenic	51.5		50.0	103								
Barium	50.9		50.0	102								
Beryllium	54.4		50.0	109								
Cadmium	50.3		50.0	101								
Chromium	51.3		50.0	103								
Cobalt	49.9		50.0	100								
Copper	52.5		50.0	105								
Dissolved Iron	13000		12500	104								
Dissolved Lead	50.9		50.0	102								
Dissolved Manganese	260		250	104								
Dissolved Molybdenum	50.9		50.0	102								
Dissolved Nickel	47.6		50.0	95								
Dissolved Selenium	51.7		50.0	103								
Dissolved Silver	50.2		50.0	100								
Dissolved Thallium	51.0		50.0	102								
Dissolved Vanadium	51.0		50.0	102								
Zinc	46.6		50.0	93								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-337442/9 07/20/2018 21:45				CCVL 240-337442/42 07/21/2018 00:13				CCVL 240-337442/64 07/21/2018 01:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.06		2.00	103	2.06		2.00	103	2.06		2.00	103
Arsenic	5.00		5.00	100	5.15		5.00	103	5.08		5.00	102
Barium	5.04		5.00	101	5.08		5.00	102	5.10		5.00	102
Beryllium	0.931	J	1.00	93	0.986	J	1.00	99	1.07		1.00	107
Cadmium	1.02		1.00	102	1.03		1.00	103	1.03		1.00	103
Chromium	2.02		2.00	101	2.10		2.00	105	2.06		2.00	103
Cobalt	1.00		1.00	100	1.02		1.00	102	1.04		1.00	104
Copper	2.16		2.00	108	2.19		2.00	110	2.20		2.00	110
Dissolved Iron	107		100	107	109		100	109	109		100	109
Dissolved Lead	1.07		1.00	107	1.10		1.00	110	1.08		1.00	108
Dissolved Manganese	4.75	J	5.00	95	4.95	J	5.00	99	4.85	J	5.00	97
Dissolved Molybdenum	5.19		5.00	104	5.04		5.00	101	5.02		5.00	100
Dissolved Nickel	2.14		2.00	107	2.02		2.00	101	1.99	J	2.00	99
Dissolved Selenium	5.12		5.00	102	5.22		5.00	104	5.26		5.00	105
Dissolved Silver	1.04		1.00	104	1.01		1.00	101	1.03		1.00	103
Dissolved Thallium	1.05		1.00	105	1.05		1.00	105	1.05		1.00	105
Dissolved Vanadium	4.91	J	5.00	98	5.02		5.00	100	5.03		5.00	101
Zinc	19.1	J	20.0	95	18.3	J	20.0	91	17.8	J	20.0	89

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	CCVL 240-337442/152 07/21/2018 08:24											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.01		2.00	101								
Arsenic	5.14		5.00	103								
Barium	4.98	J	5.00	100								
Beryllium	1.19		1.00	119								
Cadmium	1.02		1.00	102								
Chromium	2.05		2.00	102								
Cobalt	1.04		1.00	104								
Copper	2.18		2.00	109								
Dissolved Iron	110		100	110								
Dissolved Lead	1.11		1.00	111								
Dissolved Manganese	5.00		5.00	100								
Dissolved Molybdenum	4.99	J	5.00	100								
Dissolved Nickel	1.96	J	2.00	98								
Dissolved Selenium	5.14		5.00	103								
Dissolved Silver	1.01		1.00	101								
Dissolved Thallium	1.09		1.00	109								
Dissolved Vanadium	5.04		5.00	101								
Zinc	17.8	J	20.0	89								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-335074/5 07/06/2018 12:15				CCV 240-335074/22 07/06/2018 14:04				CCV 240-335074/30 07/06/2018 14:55 No samples affected.			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.7		40.0	102	50.4		50.0	101	50.9		50.0	102
Arsenic	41.2		40.0	103	50.6		50.0	101	50.5		50.0	101
Barium	40.5		40.0	101	50.8		50.0	102	50.6		50.0	101
Beryllium	42.3		40.0	106	51.9		50.0	104	56.9		50.0	114
Cadmium	42.4		40.0	106	50.1		50.0	100	50.5		50.0	101
Chromium	41.0		40.0	102	50.1		50.0	100	50.4		50.0	101
Cobalt	41.4		40.0	104	50.1		50.0	100	51.0		50.0	102
Copper	42.5		40.0	106	50.7		50.0	101	50.1		50.0	100
Iron	10300		10000	103	12400		12500	99	12400		12500	99
Lead	42.2		40.0	106	51.4		50.0	103	50.9		50.0	102
Manganese	207		200	103	246		250	98	260		250	104
Molybdenum	39.9		40.0	100	50.2		50.0	100	51.1		50.0	102
Nickel	41.1		40.0	103	50.8		50.0	102	50.6		50.0	101
Selenium	41.0		40.0	103	50.8		50.0	102	50.4		50.0	101
Silver	41.3		40.0	103	50.4		50.0	101	50.3		50.0	101
Thallium	41.2		40.0	103	50.5		50.0	101	50.4		50.0	101
Vanadium	41.0		40.0	102	51.1		50.0	102	50.3		50.0	101
Zinc	40.2		40.0	100	49.7		50.0	99	50.2		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-335110/5 07/06/2018 12:15				CCV 240-335110/119 07/07/2018 01:41				CCV 240-335110/131 07/07/2018 02:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.7		40.0	102	49.4		50.0	99	49.4		50.0	99
Arsenic	41.2		40.0	103	52.1		50.0	104	51.8		50.0	104
Barium	40.5		40.0	101	52.6		50.0	105	51.7		50.0	103
Beryllium	41.0		40.0	103	50.9		50.0	102				
Cadmium	42.4		40.0	106	48.1		50.0	96	47.8		50.0	96
Chromium	41.0		40.0	102	48.5		50.0	97	48.3		50.0	97
Cobalt	41.4		40.0	104	48.9		50.0	98	48.7		50.0	97
Copper	42.5		40.0	106	49.2		50.0	98	49.4		50.0	99
Lead	42.2		40.0	106	52.6		50.0	105	51.1		50.0	102
Manganese	207		200	103	240		250	96	262		250	105
Molybdenum	39.9		40.0	100	49.1		50.0	98	48.1		50.0	96
Nickel	41.1		40.0	103	50.0		50.0	100	48.9		50.0	98
Selenium	41.0		40.0	103	50.3		50.0	101	51.6		50.0	103
Silver	41.3		40.0	103	48.1		50.0	96	47.9		50.0	96
Thallium	41.2		40.0	103	50.0		50.0	100	49.6		50.0	99
Vanadium	41.0		40.0	102	50.6		50.0	101	50.4		50.0	101
Zinc	40.2		40.0	100	47.1		50.0	94	47.3		50.0	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-335110/142 07/07/2018 04:08											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	50.3		50.0	101								
Arsenic	51.9		50.0	104								
Barium	52.6		50.0	105								
Beryllium												
Cadmium	48.6		50.0	97								
Chromium	49.5		50.0	99								
Cobalt	49.7		50.0	99								
Copper	49.2		50.0	98								
Lead	52.0		50.0	104								
Manganese	258		250	103								
Molybdenum	49.8		50.0	100								
Nickel	49.8		50.0	100								
Selenium	52.4		50.0	105								
Silver	48.6		50.0	97								
Thallium	50.8		50.0	102								
Vanadium	51.6		50.0	103								
Zinc	48.4		50.0	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICVL 240-335074/7 07/06/2018 12:27				CCV 240-335074/22 07/06/2018 14:04				CCV 240-335074/30 07/06/2018 14:55 No samples affected.			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.01		2.00	100	50.4		50.0	101	50.9		50.0	102
Arsenic	5.03		5.00	101	50.6		50.0	101	50.5		50.0	101
Barium	4.94	J	5.00	99	50.8		50.0	102	50.6		50.0	101
Beryllium	0.961	J	1.00	96	51.9		50.0	104	56.9		50.0	114
Cadmium	1.02		1.00	102	50.1		50.0	100	50.5		50.0	101
Chromium	1.85	J	2.00	92	50.1		50.0	100	50.4		50.0	101
Cobalt	1.02		1.00	102	50.1		50.0	100	51.0		50.0	102
Copper	2.18		2.00	109	50.7		50.0	101	50.1		50.0	100
Iron	102		100	102	12400		12500	99	12400		12500	99
Lead	1.08		1.00	108	51.4		50.0	103	50.9		50.0	102
Manganese	4.52	J	5.00	90	246		250	98	260		250	104
Molybdenum	4.88	J	5.00	98	50.2		50.0	100	51.1		50.0	102
Nickel	1.98	J	2.00	99	50.8		50.0	102	50.6		50.0	101
Selenium	5.19		5.00	104	50.8		50.0	102	50.4		50.0	101
Silver	0.993	J	1.00	99	50.4		50.0	101	50.3		50.0	101
Thallium	0.992	J	1.00	99	50.5		50.0	101	50.4		50.0	101
Vanadium	5.20		5.00	104	51.1		50.0	102	50.3		50.0	101
Zinc	19.1	J	20.0	95	49.7		50.0	99	50.2		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-335110/7 07/06/2018 12:27				CCVL 240-335110/144 07/07/2018 04:21							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.01		2.00	100	2.11		2.00	106				
Arsenic	5.03		5.00	101	5.52		5.00	110				
Barium	4.94	J	5.00	99	5.38		5.00	108				
Cadmium	1.02		1.00	102	1.05		1.00	105				
Chromium	1.85	J	2.00	92	1.80	J	2.00	90				
Cobalt	1.02		1.00	102	1.03		1.00	103				
Copper	2.18		2.00	109	2.11		2.00	105				
Iron	102		100	102	100		100	100				
Lead	1.08		1.00	108	1.08		1.00	108				
Manganese	4.52	J	5.00	90	5.03		5.00	101				
Molybdenum	4.88	J	5.00	98	4.81	J	5.00	96				
Nickel	1.98	J	2.00	99	1.92	J	2.00	96				
Selenium	5.19		5.00	104	5.56		5.00	111				
Silver	0.993	J	1.00	99	0.997	J	1.00	100				
Thallium	0.992	J	1.00	99	1.08		1.00	108				
Vanadium	5.20		5.00	104	5.19		5.00	104				
Zinc	19.1	J	20.0	95	19.1	J	20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-335427/5 07/09/2018 10:39				CCV 240-335427/90 07/09/2018 19:44				CCV 240-335427/102 07/09/2018 21:01			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	40.9		40.0	102	48.8		50.0	98	48.5		50.0	97
Arsenic	42.3		40.0	106	51.6		50.0	103	51.0		50.0	102
Barium	41.2		40.0	103	51.3		50.0	103	51.1		50.0	102
Cadmium	41.4		40.0	104	49.1		50.0	98	49.0		50.0	98
Chromium	41.4		40.0	103	48.9		50.0	98	48.7		50.0	97
Cobalt	42.0		40.0	105	50.0		50.0	100	49.5		50.0	99
Copper	42.9		40.0	107	50.5		50.0	101	50.1		50.0	100
Dissolved Iron	10400		10000	104	11500		12500	92	11200		12500	90
Dissolved Lead	42.3		40.0	106	53.0		50.0	106	50.3		50.0	101
Dissolved Manganese	206		200	103	241		250	97	238		250	95
Dissolved Molybdenum	40.5		40.0	101	50.5		50.0	101	49.9		50.0	100
Dissolved Nickel	41.4		40.0	103	50.7		50.0	101	49.7		50.0	99
Dissolved Selenium	42.8		40.0	107	51.9		50.0	104	53.0		50.0	106
Dissolved Silver	41.7		40.0	104	50.3		50.0	101	49.2		50.0	98
Dissolved Thallium	41.6		40.0	104	50.0		50.0	100	49.4		50.0	99
Dissolved Vanadium	41.1		40.0	103	49.9		50.0	100	49.3		50.0	99
Zinc	40.4		40.0	101	46.7		50.0	93	46.9		50.0	94

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-335427/113 07/09/2018 22:12											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	49.2		50.0	98								
Arsenic	51.9		50.0	104								
Barium	52.6		50.0	105								
Cadmium	48.9		50.0	98								
Chromium	48.5		50.0	97								
Cobalt	49.4		50.0	99								
Copper	49.7		50.0	99								
Dissolved Iron												
Dissolved Lead	50.4		50.0	101								
Dissolved Manganese	238		250	95								
Dissolved Molybdenum	50.1		50.0	100								
Dissolved Nickel	49.7		50.0	99								
Dissolved Selenium	53.5		50.0	107								
Dissolved Silver	49.4		50.0	99								
Dissolved Thallium	50.0		50.0	100								
Dissolved Vanadium	49.5		50.0	99								
Zinc	46.7		50.0	93								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-335427/7 07/09/2018 10:52				CCVL 240-335427/115 07/09/2018 22:25							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	2.09		2.00	104	1.99	J	2.00	100				
Arsenic	5.20		5.00	104	5.43		5.00	109				
Barium	5.12		5.00	102	5.24		5.00	105				
Cadmium	1.02		1.00	102	1.00		1.00	100				
Chromium	2.08		2.00	104	1.97	J	2.00	99				
Cobalt	1.06		1.00	106	1.04		1.00	104				
Copper	2.16		2.00	108	2.20		2.00	110				
Dissolved Iron	127		100	127	128		100	128				
Dissolved Lead	1.08		1.00	108	1.07		1.00	107				
Dissolved Manganese	5.08		5.00	102	5.56		5.00	111				
Dissolved Molybdenum	5.06		5.00	101	5.02		5.00	100				
Dissolved Nickel	2.03		2.00	101	1.94	J	2.00	97				
Dissolved Selenium	5.23		5.00	105	5.56		5.00	111				
Dissolved Silver	1.06		1.00	106	1.05		1.00	105				
Dissolved Thallium	1.07		1.00	107	1.11		1.00	111				
Dissolved Vanadium	5.30		5.00	106	5.25		5.00	105				
Zinc	17.8	J	20.0	89	17.1	J	20.0	86				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	ICV 240-335609/5 07/10/2018 15:10				CCV 240-335609/74 07/10/2018 21:45				CCV 240-335609/86 07/10/2018 22:53			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	41.9		40.0	105	58.7		50.0	117	61.5		50.0	123
Antimony	40.8		40.0	102	49.0		50.0	98	49.3		50.0	99
Arsenic	40.9		40.0	102	48.0		50.0	96	47.9		50.0	96
Barium	40.5		40.0	101	49.7		50.0	99	49.4		50.0	99
Cadmium	41.4		40.0	103	47.9		50.0	96	48.1		50.0	96
Chromium	40.2		40.0	101	47.0		50.0	94	48.1		50.0	96
Cobalt	40.6		40.0	102	46.4		50.0	93	46.5		50.0	93
Copper	42.2		40.0	105	46.8		50.0	94	47.2		50.0	94
Lead	41.7		40.0	104	51.6		50.0	103	50.5		50.0	101
Manganese	204		200	102	236		250	95	249		250	99
Molybdenum	40.6		40.0	101	48.1		50.0	96	48.6		50.0	97
Nickel	40.2		40.0	100	46.6		50.0	93	46.9		50.0	94
Selenium	39.8		40.0	100	47.8		50.0	96	48.5		50.0	97
Silver	41.1		40.0	103	47.2		50.0	94	47.5		50.0	95
Thallium	40.8		40.0	102	48.5		50.0	97	48.9		50.0	98
Vanadium	39.9		40.0	100	47.9		50.0	96	48.7		50.0	97
Zinc	40.6		40.0	101	45.3		50.0	91	45.9		50.0	92

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSICVW_00084 Concentration Units: ug/L

CCV Source: MTMSCAL2CCVW_00212

Analyte	CCV 240-335609/97 07/10/2018 23:57											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	58.7		50.0	117								
Antimony	49.9		50.0	100								
Arsenic	47.8		50.0	96								
Barium	50.2		50.0	100								
Cadmium	48.4		50.0	97								
Chromium	47.2		50.0	94								
Cobalt	46.3		50.0	93								
Copper	46.6		50.0	93								
Lead	50.7		50.0	101								
Manganese	242		250	97								
Molybdenum	48.1		50.0	96								
Nickel	46.2		50.0	92								
Selenium	46.7		50.0	93								
Silver	47.1		50.0	94								
Thallium	49.4		50.0	99								
Vanadium	48.2		50.0	96								
Zinc	44.8		50.0	90								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTMSCRI6020AW_00068 Concentration Units: ug/L

CCV Source: MTMSCRI6020AW_00068

Analyte	ICVL 240-335609/7 07/10/2018 15:21				CCVL 240-335609/99 07/11/2018 00:08							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Beryllium	0.997	J	1.00	100	1.20		1.00	120				
Antimony	1.99	J	2.00	100	1.95	J	2.00	97				
Arsenic	4.92	J	5.00	98	4.80	J	5.00	96				
Barium	5.05		5.00	101	4.96	J	5.00	99				
Cadmium	1.02		1.00	102	0.973	J	1.00	97				
Chromium	1.92	J	2.00	96	1.84	J	2.00	92				
Cobalt	0.975	J	1.00	98	0.920	J	1.00	92				
Copper	2.05		2.00	102	1.87	J	2.00	93				
Iron	119		100	119	110		100	110				
Lead	0.879	J	1.00	88	0.870	J	1.00	87				
Manganese	5.64		5.00	113	6.04		5.00	121				
Molybdenum	5.00		5.00	100	4.87	J	5.00	97				
Nickel	1.85	J	2.00	93	1.63	J	2.00	81				
Selenium	4.91	J	5.00	98	4.60	J	5.00	92				
Silver	1.03		1.00	103	0.944	J	1.00	94				
Thallium	0.996	J	1.00	100	1.03		1.00	103				
Vanadium	4.94	J	5.00	99	4.82	J	5.00	96				
Zinc	18.7	J	20.0	93	16.7	J	20.0	84				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00362 Concentration Units: ug/L

CCV Source: MTHGCALW_01864

Analyte	ICV 240-334845/7-A 07/06/2018 07:56				CCV 240-334845/10-A 07/06/2018 10:41				CCV 240-334845/10-A 07/06/2018 13:20			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.04		5.00	101	4.84		5.00	97	4.94		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00362 Concentration Units: ug/L

CCV Source: MTHGCALW_01864

Analyte	CCV 240-334845/10-A 07/06/2018 13:44				CCV 240-334845/10-A 07/06/2018 13:53							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.99		5.00	100	4.94		5.00	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00364 Concentration Units: ug/L

CCV Source: MTHGCALW_01869

Analyte	ICV 240-335675/7-A 07/11/2018 11:36				CCV 240-335675/10-A 07/11/2018 18:48				CCV 240-335675/10-A 07/11/2018 19:14			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.96		5.00	99	4.80		5.00	96	4.83		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00364 Concentration Units: ug/L

CCV Source: MTHGCALW_01869

Analyte	CCV 240-335675/10-A 07/11/2018 19:40											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.81		5.00	96								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00364 Concentration Units: ug/L

CCV Source: MTHGCALW_01869

Analyte	ICV 240-335675/7-A 07/12/2018 09:05				CCV 240-335675/10-A 07/12/2018 16:20				CCV 240-335675/10-A 07/12/2018 16:47			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.87		5.00	97	4.78		5.00	96	4.67		5.00	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00364 Concentration Units: ug/L

CCV Source: MTHGCALW_01869

Analyte	CCV 240-335675/10-A 07/12/2018 17:11											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.86		5.00	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00365 Concentration Units: ug/L

CCV Source: MTHGCALW_01871

Analyte	ICV 240-336192/7-A 07/13/2018 13:25				CCV 240-336192/10-A 07/13/2018 16:09				CCV 240-336192/10-A 07/13/2018 16:35			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.82		5.00	96	4.61		5.00	92	4.45		5.00	89

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICV Source: MTHgICV_00001_00365 Concentration Units: ug/L

CCV Source: MTHGCALW_01871

Analyte	CCV 240-336192/10-A 07/13/2018 16:59				CCV 240-336192/10-A 07/13/2018 17:23				CCV 240-336192/10-A 07/13/2018 17:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.60		5.00	92	4.48		5.00	90	4.55		5.00	91

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Method: 7470A Instrument ID: H3

Lab Sample ID: CRA 240-334845/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01864

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.235		118	50-150
Mercury	0.200	0.235		118	50-150

Lab Sample ID: CRA 240-335675/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01869

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.278		139	50-150
Mercury	0.200	0.278		139	50-150

Lab Sample ID: CRA 240-335675/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01869

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.218		109	50-150
Mercury	0.200	0.218		109	50-150

Lab Sample ID: CRA 240-336192/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_01871

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.219		110	50-150
Mercury	0.200	0.219		110	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335908/5 07/12/2018 07:54		CCB 240-335908/37 07/12/2018 10:59		CCB 240-335908/49 07/12/2018 11:56			
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	310	U	310	U	310	U		
Magnesium	5000	780	U	780	U	780	U		
Potassium	5000	560	U	560	U	560	U		
SiO2, Silica	1100	180	U	180	U	180	U		
Sodium	5000	560	U	560	U	560	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336143/5 07/13/2018 10:26		CCB 240-336143/39 07/13/2018 13:07		CCB 240-336143/48 07/13/2018 13:50		CCB 240-336143/51 07/13/2018 14:05	
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	310	U	310	U	310	U	310	U
Magnesium	5000	780	U	780	U	780	U	780	U
Potassium	5000	560	U	560	U	560	U	560	U
SiO2, Silica	1100	180	U	180	U	180	U	180	U
Sodium	5000	560	U	560	U	560	U	560	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336143/63 07/13/2018 15:01							
		Found	C	Found	C	Found	C	Found	C
Calcium	5000	310	U						
Magnesium	5000	780	U						
Potassium	5000	560	U						
SiO2, Silica	1100	180	U						
Sodium	5000	560	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336326/8 07/14/2018 10:21		CCB 240-336326/87 07/14/2018 16:14		CCB 240-336326/94 07/14/2018 16:45			
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Dissolved Iron	100	47	U	47	U	47	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336575/8 07/16/2018 09:53		CCB 240-336575/164 07/16/2018 21:28		CCB 240-336575/176 07/16/2018 22:22		CCB 240-336575/188 07/16/2018 23:15	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.341	J	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Copper	2.0	1.7	U	1.77	J	1.7	U	1.7	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336877/8 07/17/2018 11:14		CCB 240-336877/92 07/17/2018 17:30		CCB 240-336877/104 07/17/2018 18:23		CCB 240-336877/116 07/17/2018 19:17	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336877/124 07/17/2018 19:52		CCB 240-336877/138 07/17/2018 20:55		CCB 240-336877/150 07/17/2018 21:48		CCB 240-336877/160 07/17/2018 22:33	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.325	J	0.31	U	0.31	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336877/172 07/17/2018 23:26		CCB 240-336877/184 07/18/2018 00:20					
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U				
Arsenic	5.0	0.75	U	0.75	U				
Barium	5.0	2.2	U	2.2	U				
Cadmium	1.0	0.21	U	0.21	U				
Chromium	2.0	0.98	U	0.98	U				
Cobalt	1.0	0.19	U	0.19	U				
Copper	2.0	1.7	U	1.7	U				
Dissolved Iron	100	47	U	47	U				
Dissolved Lead	1.0	0.45	U	0.45	U				
Dissolved Manganese	5.0	2.1	U	2.1	U				
Dissolved Molybdenum	5.0	1.1	U	1.1	U				
Dissolved Nickel	2.0	1.5	U	1.5	U				
Dissolved Selenium	5.0	0.89	U	0.89	U				
Dissolved Silver	1.0	0.053	U	0.053	U				
Dissolved Thallium	1.0	0.20	U	0.20	U				
Dissolved Vanadium	5.0	0.82	U	0.82	U				
Zinc	20	15	U	15	U				
Beryllium	1.0	0.31	U	0.31	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-337019/8 07/18/2018 11:15		CCB 240-337019/40 07/18/2018 13:46		CCB 240-337019/51 07/18/2018 14:35			
		Found	C	Found	C	Found	C	Found	C
Dissolved Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Dissolved Iron	100	47	U	47	U	47	U		
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-337207/8 07/19/2018 12:46		CCB 240-337207/82 07/19/2018 18:24		CCB 240-337207/94 07/19/2018 19:17		CCB 240-337207/106 07/19/2018 20:11	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-337442/8 07/20/2018 21:40		CCB 240-337442/25 07/20/2018 22:57		CCB 240-337442/37 07/20/2018 23:51		CCB 240-337442/47 07/21/2018 00:36	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-337442/59 07/21/2018 01:29		CCB 240-337442/133 07/21/2018 06:59		CCB 240-337442/145 07/21/2018 07:53		CCB 240-337442/151 07/21/2018 08:19	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.45	U	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335074/6 07/06/2018 12:21		CCB 240-335074/23 07/06/2018 14:10		CCB 240-335074/31 07/06/2018 15:01			
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U		
Arsenic	5.0	0.75	U	0.75	U	0.75	U		
Barium	5.0	2.2	U	2.2	U	2.2	U		
Beryllium	1.0	0.31	U	0.31	U	0.31	U		
Cadmium	1.0	0.21	U	0.21	U	0.21	U		
Chromium	2.0	0.98	U	0.98	U	0.98	U		
Cobalt	1.0	0.19	U	0.19	U	0.19	U		
Copper	2.0	1.7	U	1.7	U	1.7	U		
Iron	100	47	U	47	U	47	U		
Lead	1.0	0.45	U	0.45	U	0.45	U		
Manganese	5.0	2.1	U	2.1	U	2.1	U		
Molybdenum	5.0	1.1	U	1.1	U	1.1	U		
Nickel	2.0	1.5	U	1.5	U	1.5	U		
Selenium	5.0	0.89	U	0.89	U	0.89	U		
Silver	1.0	0.053	U	0.053	U	0.053	U		
Thallium	1.0	0.20	U	0.20	U	0.20	U		
Vanadium	5.0	0.82	U	0.82	U	0.82	U		
Zinc	20	15	U	15	U	15	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335110/6 07/06/2018 12:21		CCB 240-335110/120 07/07/2018 01:47		CCB 240-335110/132 07/07/2018 03:04		CCB 240-335110/143 07/07/2018 04:15	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.489	J	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.0530	J
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.20	U
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335427/6 07/09/2018 10:45		CCB 240-335427/91 07/09/2018 19:51		CCB 240-335427/103 07/09/2018 21:08		CCB 240-335427/114 07/09/2018 22:19	
		Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Dissolved Iron	100	47	U	47	U	47	U	47	U
Dissolved Lead	1.0	0.45	U	0.491	J	0.45	U	0.45	U
Dissolved Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Dissolved Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Dissolved Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Dissolved Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Dissolved Silver	1.0	0.053	U	0.0590	J	0.0570	J	0.053	U
Dissolved Thallium	1.0	0.20	U	0.20	U	0.20	U	0.224	J
Dissolved Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.375	J

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335609/6 07/10/2018 15:16		CCB 240-335609/75 07/10/2018 21:50		CCB 240-335609/87 07/10/2018 22:59		CCB 240-335609/98 07/11/2018 00:02	
		Found	C	Found	C	Found	C	Found	C
Beryllium	1.0	0.31	U	0.31	U	0.31	U	0.31	U
Antimony	2.0	0.57	U	0.57	U	0.57	U	0.57	U
Arsenic	5.0	0.75	U	0.75	U	0.75	U	0.75	U
Barium	5.0	2.2	U	2.2	U	2.2	U	2.2	U
Cadmium	1.0	0.21	U	0.21	U	0.21	U	0.21	U
Chromium	2.0	0.98	U	0.98	U	0.98	U	0.98	U
Cobalt	1.0	0.19	U	0.19	U	0.19	U	0.19	U
Copper	2.0	1.7	U	1.7	U	1.7	U	1.7	U
Iron	100	47	U	47	U	47	U	47	U
Lead	1.0	0.45	U	0.500	J	0.45	U	0.45	U
Manganese	5.0	2.1	U	2.1	U	2.1	U	2.1	U
Molybdenum	5.0	1.1	U	1.1	U	1.1	U	1.1	U
Nickel	2.0	1.5	U	1.5	U	1.5	U	1.5	U
Selenium	5.0	0.89	U	0.89	U	0.89	U	0.89	U
Silver	1.0	0.053	U	0.053	U	0.053	U	0.053	U
Thallium	1.0	0.20	U	0.20	U	0.20	U	0.257	J
Vanadium	5.0	0.82	U	0.82	U	0.82	U	0.82	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-334845/8-A 07/06/2018 07:58		CCB 240-334845/11-A 07/06/2018 10:42		CCB 240-334845/11-A 07/06/2018 13:22		CCB 240-334845/11-A 07/06/2018 13:46	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-334845/11-A 07/06/2018 13:55							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335675/8-A 07/11/2018 11:38		CCB 240-335675/11-A 07/11/2018 18:50		CCB 240-335675/11-A 07/11/2018 19:16		CCB 240-335675/11-A 07/11/2018 19:42	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-335675/8-A 07/12/2018 09:07		CCB 240-335675/11-A 07/12/2018 16:22		CCB 240-335675/11-A 07/12/2018 16:49		CCB 240-335675/11-A 07/12/2018 17:13	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 240-336192/8-A 07/13/2018 13:27		CCB 240-336192/11-A 07/13/2018 16:11		CCB 240-336192/11-A 07/13/2018 16:37		CCB 240-336192/11-A 07/13/2018 17:01	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U	0.13	U	0.13	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-336192/11-A 07/13/2018 17:26		CCB 240-336192/11-A 07/13/2018 17:50					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.13	U	0.13	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335663/1-A

Instrument Code: I12 Batch No.: 335908

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	310	U		6010C
7440-09-7	Potassium	560	U		6010C
7439-95-4	Magnesium	780	U		6010C
7440-23-5	Sodium	560	U		6010C
14808-60-7	SiO2, Silica	180	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335884/1-A

Instrument Code: I12 Batch No.: 336143

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	310	U		6010C
7440-09-7	Potassium	560	U		6010C
7439-95-4	Magnesium	780	U		6010C
7440-23-5	Sodium	560	U		6010C
14808-60-7	SiO2, Silica	180	U		6010C

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334865/1-A

Instrument Code: I11 Batch No.: 335074

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U	^	6020A
7440-41-7	Dissolved Beryllium	0.31	U	^	6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335239/1-A

Instrument Code: I10 Batch No.: 336575

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.294	J		6020A
7440-43-9	Dissolved Cadmium	0.294	J		6020A
7440-48-4	Cobalt	0.347	J		6020A
7440-48-4	Dissolved Cobalt	0.347	J		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.798	J		6020A
7439-92-1	Lead	0.798	J		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335239/1-A

Instrument Code: I10 Batch No.: 336877

CAS No.	Analyte	Concentration	C	Q	Method
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335663/1-A

Instrument Code: I10 Batch No.: 336877

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335875/1-A

Instrument Code: I10 Batch No.: 336877

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335663/1-A

Instrument Code: I10 Batch No.: 337207

CAS No.	Analyte	Concentration	C	Q	Method
7440-41-7	Beryllium	0.31	U	^	6020A
7440-41-7	Dissolved Beryllium	0.31	U	^	6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335875/1-A

Instrument Code: I10 Batch No.: 337442

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335884/1-A

Instrument Code: I10 Batch No.: 337442

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.57	U		6020A
7440-36-0	Dissolved Antimony	0.57	U		6020A
7440-38-2	Arsenic	0.75	U		6020A
7440-38-2	Dissolved Arsenic	0.75	U		6020A
7440-39-3	Barium	2.2	U		6020A
7440-39-3	Dissolved Barium	2.2	U		6020A
7440-41-7	Beryllium	0.31	U		6020A
7440-41-7	Dissolved Beryllium	0.31	U		6020A
7440-43-9	Cadmium	0.21	U		6020A
7440-43-9	Dissolved Cadmium	0.21	U		6020A
7440-48-4	Cobalt	0.19	U		6020A
7440-48-4	Dissolved Cobalt	0.19	U		6020A
7440-47-3	Chromium	0.98	U		6020A
7440-47-3	Dissolved Chromium	0.98	U		6020A
7440-50-8	Copper	1.7	U		6020A
7440-50-8	Dissolved Copper	1.7	U		6020A
7439-89-6	Dissolved Iron	47	U		6020A
7439-89-6	Iron	47	U		6020A
7439-96-5	Dissolved Manganese	2.1	U		6020A
7439-96-5	Manganese	2.1	U		6020A
7439-98-7	Dissolved Molybdenum	1.1	U		6020A
7439-98-7	Molybdenum	1.1	U		6020A
7440-02-0	Dissolved Nickel	1.5	U		6020A
7440-02-0	Nickel	1.5	U		6020A
7439-92-1	Dissolved Lead	0.45	U		6020A
7439-92-1	Lead	0.45	U		6020A
7782-49-2	Dissolved Selenium	0.89	U		6020A
7782-49-2	Selenium	0.89	U		6020A
7440-28-0	Dissolved Thallium	0.20	U		6020A
7440-28-0	Thallium	0.20	U		6020A
7440-62-2	Dissolved Vanadium	0.82	U		6020A
7440-66-6	Dissolved Zinc	15	U		6020A
7440-62-2	Vanadium	0.82	U		6020A
7440-66-6	Zinc	15	U		6020A
7440-22-4	Dissolved Silver	0.053	U		6020A
7440-22-4	Silver	0.053	U		6020A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-334866/1-A

Instrument Code: H3 Batch No.: 335264

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335241/1-A

Instrument Code: H3 Batch No.: 335730

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335668/1-A

Instrument Code: H3 Batch No.: 335916

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335883/1-A

Instrument Code: H3 Batch No.: 336333

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 240-335886/1-A

Instrument Code: H3 Batch No.: 336333

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.13	U		7470A
7439-97-6	Mercury, Dissolved	0.13	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335908/8 Instrument ID: I12

Lab File ID: I12071218A.asc ICS Source: MTTRICSAW_00038

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**468180**	**94**
Magnesium	**500000**	**491760**	**98**
Potassium		**21.7**	
Sodium		**52.9**	
Aluminum	*500000*	*506220*	*101*
Antimony		*-2.13*	
Arsenic		*-4.91*	
Barium		*0.438*	
Beryllium		*0.249*	
Boron		*1.80*	
Cadmium		*1.31*	
Chromium		*3.25*	
Cobalt		*-5.25*	
Copper		*-0.222*	
Iron	*200000*	*187200*	*94*
Lead		*-2.23*	
Lithium		*13.3*	
Manganese		*0.864*	
Molybdenum		*-0.837*	
Nickel		*2.58*	
Selenium		*-3.19*	
Silicon		*1.08*	
Silver		*-1.17*	
Strontium		*14.3*	
Thallium		*5.40*	
Tin		*0.133*	
Titanium		*-4.35*	
Vanadium		*-7.01*	
Zinc		*-1.02*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335908/9 Instrument ID: I12

Lab File ID: I12071218A.asc ICS Source: MTICPICSABW_00018

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**472290**	**94**
Magnesium	**500000**	**495830**	**99**
Potassium	**10000**	**10341**	**103**
Sodium	**10000**	**10346**	**103**
Aluminum	*500000*	*509420*	*102*
Antimony	*1000*	*990*	*99*
Arsenic	*1000*	*985*	*99*
Barium	*500*	*491*	*98*
Beryllium	*500*	*484*	*97*
Boron	*500*	*501*	*100*
Cadmium	*1000*	*1018*	*102*
Chromium	*500*	*488*	*98*
Cobalt	*500*	*495*	*99*
Copper	*500*	*531*	*106*
Iron	*200000*	*189450*	*95*
Lead	*1000*	*880*	*88*
Lithium	*500*	*530*	*106*
Manganese	*500*	*493*	*99*
Molybdenum	*1000*	*947*	*95*
Nickel	*1000*	*997*	*100*
Selenium	*1000*	*977*	*98*
Silicon	*10000*	*9842*	*98*
Silver	*1000*	*1094*	*109*
Strontium	*1500*	*1423*	*95*
Thallium	*1000*	*942*	*94*
Tin	*500*	*513*	*103*
Titanium	*500*	*500*	*100*
Vanadium	*500*	*472*	*94*
Zinc	*1000*	*1013*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336143/8 Instrument ID: I12

Lab File ID: I12071318A.asc ICS Source: MTTRICSAW_00038

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500000**	**474450**	**95**
Magnesium	**500000**	**492510**	**99**
Potassium		**-15.0**	
Sodium		**41.2**	
Aluminum	*500000*	*501280*	*100*
Antimony		*2.69*	
Arsenic		*-0.684*	
Barium		*0.136*	
Beryllium		*0.188*	
Boron		*-0.0123*	
Cadmium		*1.28*	
Chromium		*2.39*	
Cobalt		*-5.37*	
Copper		*0.975*	
Iron	*200000*	*188330*	*94*
Lead		*-3.14*	
Lithium		*12.0*	
Manganese		*0.745*	
Molybdenum		*-0.575*	
Nickel		*3.80*	
Selenium		*-4.46*	
Silicon		*10.3*	
Silver		*-2.13*	
Strontium		*9.44*	
Thallium		*2.43*	
Tin		*0.553*	
Titanium		*-1.95*	
Vanadium		*-3.12*	
Zinc		*-2.18*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336143/9 Instrument ID: I12

Lab File ID: I12071318A.asc ICS Source: MTICPICSABW_00018

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500000**	**479220**	**96**
Magnesium	**500000**	**494470**	**99**
Potassium	**10000**	**10265**	**103**
Sodium	**10000**	**10281**	**103**
Aluminum	*500000*	*506360*	*101*
Antimony	*1000*	*991*	*99*
Arsenic	*1000*	*996*	*100*
Barium	*500*	*491*	*98*
Beryllium	*500*	*486*	*97*
Boron	*500*	*504*	*101*
Cadmium	*1000*	*1027*	*103*
Chromium	*500*	*490*	*98*
Cobalt	*500*	*502*	*100*
Copper	*500*	*534*	*107*
Iron	*200000*	*190510*	*95*
Lead	*1000*	*897*	*90*
Lithium	*500*	*527*	*105*
Manganese	*500*	*492*	*98*
Molybdenum	*1000*	*960*	*96*
Nickel	*1000*	*1009*	*101*
Selenium	*1000*	*988*	*99*
Silicon	*10000*	*9828*	*98*
Silver	*1000*	*1093*	*109*
Strontium	*1500*	*1428*	*95*
Thallium	*1000*	*951*	*95*
Tin	*500*	*520*	*104*
Titanium	*500*	*504*	*101*
Vanadium	*500*	*478*	*96*
Zinc	*1000*	*1022*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336326/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0070**	
Dissolved Iron	**50000**	**50409**	**101**
Aluminum	*50000*	*50718*	*101*
Antimony		*0.0390*	
Arsenic		*0.130*	
Barium		*0.0190*	
Boron		*-0.582*	
Cadmium		*0.346*	
Calcium	*50000*	*48194*	*96*
Chromium		*0.0940*	
Cobalt		*0.0020*	
Copper		*0.532*	
Lead		*0.0500*	
Lithium		*-1.29*	
Magnesium	*50000*	*48911*	*98*
Manganese		*-0.325*	
Molybdenum	*1000*	*1003*	*100*
Nickel		*0.0630*	
Potassium	*50000*	*50055*	*100*
Selenium		*0.168*	
Silver		*0.0130*	
Sodium	*50000*	*49109*	*98*
Strontium		*0.323*	
Thallium		*0.0040*	
Tin		*-0.112*	
Titanium	*1000*	*1005*	*100*
Tungsten		*0.173*	
Vanadium		*-0.0680*	
Zinc		*-2.86*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336326/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**96.5**	**96**
Dissolved Iron	**50000**	**50721**	**101**
Aluminum	*50000*	*49474*	*99*
Antimony	*100*	*102*	*102*
Arsenic	*100*	*101*	*101*
Barium	*100*	*97.1*	*97*
Boron	*100*	*96.7*	*97*
Cadmium	*100*	*97.6*	*98*
Calcium	*50000*	*48327*	*97*
Chromium	*100*	*101*	*101*
Cobalt	*100*	*104*	*104*
Copper	*100*	*102*	*102*
Lead	*100*	*101*	*101*
Lithium	*100*	*97.0*	*97*
Magnesium	*50000*	*47949*	*96*
Manganese	*100*	*98.2*	*98*
Molybdenum	*1100*	*1095*	*100*
Nickel	*100*	*96.9*	*97*
Potassium	*50000*	*49513*	*99*
Selenium	*100*	*103*	*103*
Silver	*100*	*95.2*	*95*
Sodium	*50000*	*48416*	*97*
Strontium	*100*	*94.5*	*94*
Thallium	*100*	*99.1*	*99*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1090*	*99*
Tungsten	*100*	*99.8*	*100*
Vanadium	*100*	*99.8*	*100*
Zinc	*100*	*102*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336575/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0420**	
Arsenic		**0.0440**	
Barium		**0.0130**	
Beryllium		**-0.0420**	
Cadmium		**0.373**	
Chromium		**0.0620**	
Cobalt		**-0.0040**	
Dissolved Iron	**50000**	**48728**	**97**
Dissolved Lead		**0.0380**	
Dissolved Manganese		**-0.255**	
Dissolved Molybdenum	**1000**	**1023**	**102**
Dissolved Nickel		**0.0180**	
Dissolved Selenium		**0.124**	
Dissolved Silver		**0.0140**	
Dissolved Thallium		**0.0010**	
Dissolved Vanadium		**-0.0770**	
Zinc		**-1.90**	
Aluminum	*50000*	*50580*	*101*
Boron		*-0.545*	
Calcium	*50000*	*48033*	*96*
Copper		*0.481*	
Lithium		*-0.731*	
Magnesium	*50000*	*48981*	*98*
Potassium	*50000*	*48292*	*97*
Sodium	*50000*	*48855*	*98*
Strontium		*0.408*	
Tin		*-0.0980*	
Titanium	*1000*	*979*	*98*
Tungsten		*0.159*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336575/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**98.4**	**98**
Barium	**100**	**98.8**	**99**
Beryllium	**100**	**96.4**	**96**
Cadmium	**100**	**98.5**	**98**
Chromium	**100**	**95.8**	**96**
Cobalt	**100**	**95.6**	**96**
Dissolved Iron	**50000**	**47977**	**96**
Dissolved Lead	**100**	**98.4**	**98**
Dissolved Manganese	**100**	**94.2**	**94**
Dissolved Molybdenum	**1100**	**1082**	**98**
Dissolved Nickel	**100**	**95.6**	**96**
Dissolved Selenium	**100**	**98.4**	**98**
Dissolved Silver	**100**	**95.6**	**96**
Dissolved Thallium	**100**	**96.7**	**97**
Dissolved Vanadium	**100**	**97.0**	**97**
Zinc	**100**	**97.1**	**97**
Aluminum	*50000*	*50798*	*102*
Boron	*100*	*96.6*	*97*
Calcium	*50000*	*48065*	*96*
Copper	*100*	*96.4*	*96*
Lithium	*100*	*98.4*	*98*
Magnesium	*50000*	*48003*	*96*
Potassium	*50000*	*47671*	*95*
Sodium	*50000*	*48939*	*98*
Strontium	*100*	*96.9*	*97*
Tin	*100*	*99.6*	*100*
Titanium	*1100*	*1073*	*98*
Tungsten	*100*	*97.9*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336575/151 Instrument ID: I10

Lab File ID: 151ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.897**	
Arsenic		**0.123**	
Barium		**0.0480**	
Beryllium		**-0.0480**	
Cadmium		**0.344**	
Chromium		**0.0640**	
Cobalt		**-0.0130**	
Dissolved Iron	**50000**	**51183**	**102**
Dissolved Lead		**1.06**	
Dissolved Manganese		**0.303**	
Dissolved Molybdenum	**1000**	**980**	**98**
Dissolved Nickel		**-0.159**	
Dissolved Selenium		**0.249**	
Dissolved Silver		**0.0120**	
Dissolved Thallium		**-0.0020**	
Dissolved Vanadium		**0.0670**	
Zinc		**-0.498**	
Aluminum	*50000*	*49820*	*100*
Boron		*-0.801*	
Calcium	*50000*	*47570*	*95*
Lithium		*-1.61*	
Magnesium	*50000*	*47994*	*96*
Potassium	*50000*	*45346*	*91*
Sodium	*50000*	*47574*	*95*
Strontium		*0.472*	
Tin		*5.08*	
Titanium	*1000*	*971*	*97*
Tungsten		*0.0840*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336575/152 Instrument ID: I10

Lab File ID: 152ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**102**	**102**
Arsenic	**100**	**105**	**105**
Barium	**100**	**102**	**102**
Beryllium	**100**	**104**	**104**
Cadmium	**100**	**97.7**	**98**
Chromium	**100**	**99.0**	**99**
Cobalt	**100**	**102**	**102**
Dissolved Iron	**50000**	**50535**	**101**
Dissolved Lead	**100**	**96.4**	**96**
Dissolved Manganese	**100**	**96.8**	**97**
Dissolved Molybdenum	**1100**	**1067**	**97**
Dissolved Nickel	**100**	**102**	**102**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**94.9**	**95**
Dissolved Thallium	**100**	**93.7**	**94**
Dissolved Vanadium	**100**	**98.4**	**98**
Zinc	**100**	**106**	**106**
Aluminum	*50000*	*49902*	*100*
Boron	*100*	*103*	*103*
Calcium	*50000*	*46945*	*94*
Copper	*100*	*93.3*	*93*
Lithium	*100*	*98.0*	*98*
Magnesium	*50000*	*47721*	*95*
Potassium	*50000*	*45245*	*90*
Sodium	*50000*	*46115*	*92*
Strontium	*100*	*105*	*105*
Tin	*100*	*101*	*101*
Titanium	*1100*	*1060*	*96*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336877/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0550**	
Arsenic		**0.209**	
Barium		**0.0440**	
Cadmium		**0.360**	
Chromium		**0.0820**	
Cobalt		**-0.0270**	
Copper		**0.692**	
Dissolved Iron	**50000**	**48760**	**98**
Dissolved Lead		**0.0780**	
Dissolved Manganese		**-0.256**	
Dissolved Molybdenum	**1000**	**1027**	**103**
Dissolved Nickel		**-0.177**	
Dissolved Selenium		**0.196**	
Dissolved Silver		**0.0150**	
Dissolved Thallium		**0.0030**	
Dissolved Vanadium		**0.0090**	
Zinc		**1.38**	
Aluminum	*50000*	*47555*	*95*
Beryllium		*-0.0140*	
Boron		*-0.429*	
Calcium	*50000*	*48198*	*96*
Lithium		*0.288*	
Magnesium	*50000*	*49301*	*99*
Potassium	*50000*	*48312*	*97*
Sodium	*50000*	*49327*	*99*
Strontium		*0.428*	
Tin		*0.121*	
Titanium	*1000*	*999*	*100*
Tungsten		*0.185*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336877/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**98.2**	**98**
Arsenic	**100**	**101**	**101**
Barium	**100**	**98.4**	**98**
Cadmium	**100**	**98.5**	**99**
Chromium	**100**	**97.8**	**98**
Cobalt	**100**	**99.0**	**99**
Copper	**100**	**99.0**	**99**
Dissolved Iron	**50000**	**48720**	**97**
Dissolved Lead	**100**	**98.7**	**99**
Dissolved Manganese	**100**	**96.4**	**96**
Dissolved Molybdenum	**1100**	**1136**	**103**
Dissolved Nickel	**100**	**99.4**	**99**
Dissolved Selenium	**100**	**101**	**101**
Dissolved Silver	**100**	**99.6**	**100**
Dissolved Thallium	**100**	**96.2**	**96**
Dissolved Vanadium	**100**	**98.4**	**98**
Zinc	**100**	**98.9**	**99**
Aluminum	*50000*	*47819*	*96*
Beryllium	*100*	*103*	*103*
Boron	*100*	*98.9*	*99*
Calcium	*50000*	*49516*	*99*
Lithium	*100*	*102*	*102*
Magnesium	*50000*	*49225*	*98*
Potassium	*50000*	*48771*	*98*
Sodium	*50000*	*49529*	*99*
Strontium	*100*	*99.3*	*99*
Tin	*100*	*98.0*	*98*
Titanium	*1100*	*1111*	*101*
Tungsten	*100*	*96.4*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-336877/134 Instrument ID: I10

Lab File ID: 134ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0640**	
Arsenic		**0.196**	
Barium		**0.0790**	
Cadmium		**0.317**	
Chromium		**0.0510**	
Cobalt		**0.0210**	
Copper		**0.786**	
Dissolved Iron	**50000**	**49510**	**99**
Dissolved Lead		**0.164**	
Dissolved Manganese		**0.244**	
Dissolved Molybdenum	**1000**	**1005**	**100**
Dissolved Nickel		**-0.514**	
Dissolved Selenium		**0.308**	
Dissolved Silver		**0.0150**	
Dissolved Thallium		**0.0090**	
Dissolved Vanadium		**0.0400**	
Zinc		**1.85**	
Aluminum	*50000*	*44315*	*89*
Beryllium		*0.202*	
Calcium	*50000*	*47870*	*96*
Lithium		*-0.721*	
Magnesium	*50000*	*47872*	*96*
Potassium	*50000*	*46408*	*93*
Sodium	*50000*	*46992*	*94*
Strontium		*0.509*	
Tin		*0.120*	
Titanium	*1000*	*979*	*98*
Tungsten		*0.131*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-336877/135 Instrument ID: I10

Lab File ID: 135ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**97.7**	**98**
Arsenic	**100**	**104**	**104**
Barium	**100**	**98.2**	**98**
Cadmium	**100**	**98.8**	**99**
Chromium	**100**	**99.0**	**99**
Cobalt	**100**	**102**	**102**
Copper	**100**	**102**	**102**
Dissolved Iron	**50000**	**50069**	**100**
Dissolved Lead	**100**	**95.0**	**95**
Dissolved Manganese	**100**	**96.6**	**97**
Dissolved Molybdenum	**1100**	**1113**	**101**
Dissolved Nickel	**100**	**101**	**101**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**98.2**	**98**
Dissolved Thallium	**100**	**93.7**	**94**
Dissolved Vanadium	**100**	**98.6**	**99**
Zinc	**100**	**103**	**103**
Aluminum	*50000*	*45540*	*91*
Beryllium	*100*	*95.7*	*96*
Boron	*100*	*134*	*134*
Calcium	*50000*	*48619*	*97*
Lithium	*100*	*95.5*	*95*
Magnesium	*50000*	*48350*	*97*
Potassium	*50000*	*46823*	*94*
Sodium	*50000*	*48070*	*96*
Strontium	*100*	*101*	*101*
Tin	*100*	*95.1*	*95*
Titanium	*1100*	*1088*	*99*
Tungsten	*100*	*98.9*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-337019/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Dissolved Beryllium		**-0.0320**	
Dissolved Iron	**50000**	**47646**	**95**
Aluminum	*50000*	*49136*	*98*
Antimony		*0.0470*	
Arsenic		*0.0530*	
Barium		*0.0090*	
Boron		*0.931*	
Cadmium		*0.353*	
Calcium	*50000*	*48652*	*97*
Chromium		*0.102*	
Cobalt		*-0.0170*	
Copper		*0.508*	
Lead		*0.0710*	
Lithium		*-0.469*	
Magnesium	*50000*	*48887*	*98*
Manganese		*-0.0730*	
Molybdenum	*1000*	*1030*	*103*
Nickel		*-0.0890*	
Potassium	*50000*	*47377*	*95*
Selenium		*0.0310*	
Silver		*0.0080*	
Sodium	*50000*	*48567*	*97*
Strontium		*0.397*	
Thallium		*0.0060*	
Tin		*0.0570*	
Titanium	*1000*	*977*	*98*
Tungsten		*0.180*	
Vanadium		*0.0200*	
Zinc		*-0.403*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-337019/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Dissolved Beryllium	**100**	**107**	**107**
Dissolved Iron	**50000**	**47301**	**95**
Aluminum	*50000*	*48246*	*96*
Antimony	*100*	*99.8*	*100*
Arsenic	*100*	*96.5*	*97*
Barium	*100*	*94.7*	*95*
Boron	*100*	*99.9*	*100*
Cadmium	*100*	*94.7*	*95*
Calcium	*50000*	*48643*	*97*
Chromium	*100*	*95.0*	*95*
Cobalt	*100*	*94.8*	*95*
Copper	*100*	*94.9*	*95*
Lead	*100*	*98.9*	*99*
Lithium	*100*	*108*	*108*
Magnesium	*50000*	*48112*	*96*
Manganese	*100*	*93.8*	*94*
Molybdenum	*1100*	*1139*	*104*
Nickel	*100*	*94.9*	*95*
Potassium	*50000*	*47799*	*96*
Selenium	*100*	*97.7*	*98*
Silver	*100*	*98.9*	*99*
Sodium	*50000*	*48176*	*96*
Strontium	*100*	*96.8*	*97*
Thallium	*100*	*97.6*	*98*
Tin	*100*	*97.9*	*98*
Titanium	*1100*	*1077*	*98*
Tungsten	*100*	*95.8*	*96*
Vanadium	*100*	*95.4*	*95*
Zinc	*100*	*95.9*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-337207/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0010**	
Dissolved Iron	**50000**	**49007**	**98**
Aluminum	*50000*	*45884*	*92*
Antimony		*0.109*	
Arsenic		*0.0010*	
Barium		*0.0330*	
Boron		*-1.69*	
Cadmium		*0.345*	
Calcium	*50000*	*49560*	*99*
Chromium		*0.0960*	
Cobalt		*0.0080*	
Copper		*0.523*	
Lead		*0.0600*	
Lithium		*-0.0120*	
Magnesium	*50000*	*50756*	*102*
Manganese		*0.127*	
Molybdenum	*1000*	*1018*	*102*
Nickel		*0.286*	
Potassium	*50000*	*50746*	*101*
Selenium		*0.167*	
Silver		*0.0150*	
Sodium	*50000*	*50648*	*101*
Strontium		*0.438*	
Thallium		*0.0040*	
Tin		*0.0400*	
Titanium	*1000*	*1021*	*102*
Tungsten		*0.364*	
Vanadium		*0.0040*	
Zinc		*1.62*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-337207/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Beryllium	**100**	**100**	**100**
Dissolved Iron	**50000**	**49265**	**99**
Aluminum	*50000*	*45510*	*91*
Antimony	*100*	*103*	*103*
Arsenic	*100*	*101*	*101*
Barium	*100*	*102*	*102*
Boron	*100*	*94.1*	*94*
Cadmium	*100*	*101*	*101*
Calcium	*50000*	*48535*	*97*
Chromium	*100*	*98.6*	*99*
Cobalt	*100*	*99.7*	*100*
Copper	*100*	*99.5*	*100*
Lead	*100*	*96.8*	*97*
Lithium	*100*	*97.3*	*97*
Magnesium	*50000*	*50357*	*101*
Manganese	*100*	*98.5*	*99*
Molybdenum	*1100*	*1148*	*104*
Nickel	*100*	*99.2*	*99*
Potassium	*50000*	*49183*	*98*
Selenium	*100*	*101*	*101*
Silver	*100*	*101*	*101*
Sodium	*50000*	*49629*	*99*
Strontium	*100*	*99.8*	*100*
Thallium	*100*	*96.7*	*97*
Tin	*100*	*100*	*100*
Titanium	*1100*	*1100*	*100*
Tungsten	*100*	*97.9*	*98*
Vanadium	*100*	*98.1*	*98*
Zinc	*100*	*98.6*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-337442/10 Instrument ID: I10

Lab File ID: 010ICSA.d ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0510**	
Arsenic		**0.0690**	
Barium		**0.0340**	
Beryllium		**-0.0190**	
Cadmium		**0.404**	
Chromium		**0.0890**	
Cobalt		**-0.0010**	
Copper		**0.397**	
Dissolved Iron	**50000**	**48802**	**98**
Dissolved Lead		**0.0680**	
Dissolved Manganese		**-0.0560**	
Dissolved Molybdenum	**1000**	**1027**	**103**
Dissolved Nickel		**0.115**	
Dissolved Selenium		**0.108**	
Dissolved Silver		**0.0100**	
Dissolved Thallium		**0.0040**	
Dissolved Vanadium		**-0.0360**	
Zinc		**-0.626**	
Aluminum	*50000*	*49210*	*98*
Boron		*-1.06*	
Calcium	*50000*	*48953*	*98*
Lithium		*-0.419*	
Magnesium	*50000*	*49343*	*99*
Potassium	*50000*	*49244*	*98*
Sodium	*50000*	*48466*	*97*
Strontium		*0.429*	
Tin		*-0.154*	
Titanium	*1000*	*996*	*100*
Tungsten		*0.308*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-337442/11 Instrument ID: I10

Lab File ID: 011ICAB.d ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**104**	**104**
Arsenic	**100**	**101**	**101**
Barium	**100**	**103**	**103**
Beryllium	**100**	**99.1**	**99**
Cadmium	**100**	**100**	**100**
Chromium	**100**	**98.3**	**98**
Cobalt	**100**	**98.8**	**99**
Copper	**100**	**99.4**	**99**
Dissolved Iron	**50000**	**48774**	**98**
Dissolved Lead	**100**	**99.4**	**99**
Dissolved Manganese	**100**	**97.0**	**97**
Dissolved Molybdenum	**1100**	**1132**	**103**
Dissolved Nickel	**100**	**98.5**	**98**
Dissolved Selenium	**100**	**102**	**102**
Dissolved Silver	**100**	**99.2**	**99**
Dissolved Thallium	**100**	**98.0**	**98**
Dissolved Vanadium	**100**	**98.6**	**99**
Zinc	**100**	**102**	**102**
Aluminum	*50000*	*49167*	*98*
Boron	*100*	*99.3*	*99*
Calcium	*50000*	*49541*	*99*
Lithium	*100*	*97.9*	*98*
Magnesium	*50000*	*48967*	*98*
Potassium	*50000*	*48430*	*97*
Sodium	*50000*	*49011*	*98*
Strontium	*100*	*98.9*	*99*
Tin	*100*	*103*	*103*
Titanium	*1100*	*1099*	*100*
Tungsten	*100*	*99.2*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335074/8 Instrument ID: I11

Lab File ID: I11070618A.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0170**	
Arsenic		**0.0020**	
Barium		**0.0230**	
Beryllium		**-0.0470**	
Cadmium		**0.509**	
Chromium		**-0.0920**	
Cobalt		**0.0690**	
Copper		**0.358**	
Iron	**50000**	**51340**	**103**
Lead		**0.0720**	
Manganese		**-0.101**	
Molybdenum	**1000**	**1007**	**101**
Nickel		**-0.0720**	
Selenium		**0.0850**	
Silver		**0.0150**	
Thallium		**-0.0740**	
Vanadium		**0.0490**	
Zinc		**-2.33**	
Aluminum	*50000*	*50490*	*101*
Boron		*-4.37*	
Calcium	*50000*	*52370*	*105*
Magnesium	*50000*	*50490*	*101*
Potassium	*50000*	*50860*	*102*
Sodium	*50000*	*50420*	*101*
Strontium		*0.419*	
Tin		*-0.490*	
Titanium	*1000*	*971*	*97*
Tungsten		*-0.0180*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335110/8 Instrument ID: I11

Lab File ID: I11070618B.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	*50000*	*50490*	*101*
Antimony		*0.0170*	
Arsenic		*0.0020*	
Barium		*0.0230*	
Beryllium		*-0.0480*	
Boron		*-4.37*	
Cadmium		*0.509*	
Calcium	*50000*	*52370*	*105*
Chromium		*-0.0920*	
Cobalt		*0.0690*	
Copper		*0.358*	
Iron	*50000*	*51340*	*103*
Lead		*0.0720*	
Magnesium	*50000*	*50490*	*101*
Manganese		*-0.101*	
Molybdenum	*1000*	*1007*	*101*
Nickel		*-0.0720*	
Potassium	*50000*	*50860*	*102*
Selenium		*0.0850*	
Silver		*0.0150*	
Sodium	*50000*	*50420*	*101*
Strontium		*0.419*	
Thallium		*-0.0740*	
Tin		*-0.490*	
Titanium	*1000*	*971*	*97*
Tungsten		*-0.0180*	
Vanadium		*0.0490*	
Zinc		*-2.33*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335074/9 Instrument ID: I11

Lab File ID: I11070618A.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**100**	**103**	**103**
Barium	**100**	**100**	**100**
Beryllium	**100**	**101**	**101**
Cadmium	**100**	**101**	**101**
Chromium	**100**	**99.3**	**99**
Cobalt	**100**	**101**	**101**
Copper	**100**	**102**	**102**
Iron	**50000**	**50720**	**101**
Lead	**100**	**104**	**104**
Manganese	**100**	**99.3**	**99**
Molybdenum	**1100**	**1108**	**101**
Nickel	**100**	**102**	**102**
Selenium	**100**	**101**	**101**
Silver	**100**	**101**	**101**
Thallium	**100**	**101**	**101**
Vanadium	**100**	**101**	**101**
Zinc	**100**	**105**	**105**
Aluminum	*50000*	*50110*	*100*
Boron	*100*	*91.3*	*91*
Calcium	*50000*	*51710*	*103*
Magnesium	*50000*	*49920*	*100*
Potassium	*50000*	*50640*	*101*
Sodium	*50000*	*50130*	*100*
Strontium	*100*	*101*	*101*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1063*	*97*
Tungsten	*100*	*101*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335110/9 Instrument ID: I11

Lab File ID: I11070618B.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	*50000*	*50110*	*100*
Antimony	*100*	*103*	*103*
Arsenic	*100*	*103*	*103*
Barium	*100*	*100*	*100*
Beryllium	*100*	*96.7*	*97*
Boron	*100*	*91.3*	*91*
Cadmium	*100*	*101*	*101*
Calcium	*50000*	*51710*	*103*
Chromium	*100*	*99.3*	*99*
Cobalt	*100*	*101*	*101*
Copper	*100*	*102*	*102*
Iron	*50000*	*50720*	*101*
Lead	*100*	*104*	*104*
Magnesium	*50000*	*49920*	*100*
Manganese	*100*	*99.3*	*99*
Molybdenum	*1100*	*1108*	*101*
Nickel	*100*	*102*	*102*
Potassium	*50000*	*50640*	*101*
Selenium	*100*	*101*	*101*
Silver	*100*	*101*	*101*
Sodium	*50000*	*50130*	*100*
Strontium	*100*	*101*	*101*
Thallium	*100*	*101*	*101*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1063*	*97*
Tungsten	*100*	*101*	*101*
Vanadium	*100*	*101*	*101*
Zinc	*100*	*105*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335427/8 Instrument ID: I11

Lab File ID: I11070918A.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0240**	
Arsenic		**0.0900**	
Barium		**0.0300**	
Cadmium		**0.700**	
Chromium		**0.106**	
Cobalt		**0.0940**	
Copper		**0.590**	
Dissolved Iron	**50000**	**51650**	**103**
Dissolved Lead		**0.0770**	
Dissolved Manganese		**-0.642**	
Dissolved Molybdenum	**1000**	**1050**	**105**
Dissolved Nickel		**0.0770**	
Dissolved Selenium		**0.0520**	
Dissolved Silver		**0.0140**	
Dissolved Thallium		**-0.0140**	
Dissolved Vanadium		**0.0630**	
Zinc		**2.47**	
Aluminum	*50000*	*41050*	*82*
Beryllium		*-0.0120*	
Boron		*-1.06*	
Calcium	*50000*	*50480*	*101*
Magnesium	*50000*	*48710*	*97*
Potassium	*50000*	*47260*	*95*
Sodium	*50000*	*51690*	*103*
Strontium		*0.431*	
Tin		*-0.190*	
Titanium	*1000*	*1034*	*103*
Tungsten		*0.102*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335427/9 Instrument ID: I11

Lab File ID: I11070918A.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**104**	**104**
Arsenic	**100**	**105**	**105**
Barium	**100**	**101**	**101**
Cadmium	**100**	**103**	**103**
Chromium	**100**	**100**	**100**
Cobalt	**100**	**102**	**102**
Copper	**100**	**103**	**103**
Dissolved Iron	**50000**	**50850**	**102**
Dissolved Lead	**100**	**103**	**103**
Dissolved Manganese	**100**	**106**	**106**
Dissolved Molybdenum	**1100**	**1138**	**103**
Dissolved Nickel	**100**	**101**	**101**
Dissolved Selenium	**100**	**103**	**103**
Dissolved Silver	**100**	**102**	**102**
Dissolved Thallium	**100**	**102**	**102**
Dissolved Vanadium	**100**	**100**	**100**
Zinc	**100**	**105**	**105**
Aluminum	*50000*	*38920*	*78*
Beryllium	*100*	*105*	*105*
Boron	*100*	*96.3*	*96*
Calcium	*50000*	*50730*	*101*
Magnesium	*50000*	*49420*	*99*
Potassium	*50000*	*49510*	*99*
Sodium	*50000*	*51280*	*103*
Strontium	*100*	*101*	*101*
Tin	*100*	*102*	*102*
Titanium	*1100*	*1125*	*102*
Tungsten	*100*	*103*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335427/57 Instrument ID: I11

Lab File ID: I11070918A.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0230**	
Arsenic		**0.103**	
Barium		**0.0120**	
Cadmium		**0.667**	
Chromium		**0.0890**	
Cobalt		**0.0850**	
Copper		**0.399**	
Dissolved Iron	**50000**	**47720**	**95**
Dissolved Lead		**0.0610**	
Dissolved Manganese		**-0.726**	
Dissolved Molybdenum	**1000**	**981**	**98**
Dissolved Nickel		**0.0140**	
Dissolved Selenium		**0.0380**	
Dissolved Silver		**0.0090**	
Dissolved Thallium		**0.0630**	
Dissolved Vanadium		**0.0260**	
Zinc		**-4.74**	
Aluminum	*50000*	*40740*	*81*
Beryllium		*0.0710*	
Boron		*-2.74*	
Calcium	*50000*	*50550*	*101*
Magnesium	*50000*	*47770*	*96*
Potassium	*50000*	*50070*	*100*
Sodium	*50000*	*49540*	*99*
Strontium		*0.345*	
Tin		*-0.251*	
Titanium	*1000*	*989*	*99*
Tungsten		*0.0570*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335427/58 Instrument ID: I11

Lab File ID: I11070918A.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**100**	**96.1**	**96**
Arsenic	**100**	**98.9**	**99**
Barium	**100**	**95.9**	**96**
Cadmium	**100**	**95.7**	**96**
Chromium	**100**	**94.8**	**95**
Cobalt	**100**	**95.8**	**96**
Copper	**100**	**96.7**	**97**
Dissolved Iron	**50000**	**46910**	**94**
Dissolved Lead	**100**	**98.4**	**98**
Dissolved Manganese	**100**	**98.5**	**99**
Dissolved Molybdenum	**1100**	**1065**	**97**
Dissolved Nickel	**100**	**95.8**	**96**
Dissolved Selenium	**100**	**97.4**	**97**
Dissolved Silver	**100**	**96.3**	**96**
Dissolved Thallium	**100**	**96.7**	**97**
Dissolved Vanadium	**100**	**94.7**	**95**
Zinc	**100**	**95.3**	**95**
Aluminum	*50000*	*39830*	*80*
Beryllium	*100*	*103*	*103*
Boron	*100*	*93.6*	*94*
Calcium	*50000*	*47600*	*95*
Magnesium	*50000*	*47290*	*95*
Potassium	*50000*	*47300*	*95*
Sodium	*50000*	*48550*	*97*
Strontium	*100*	*94.6*	*95*
Tin	*100*	*95.6*	*96*
Titanium	*1100*	*1068*	*97*
Tungsten	*100*	*96.1*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSA 240-335609/8 Instrument ID: I11

Lab File ID: I11071018B.csv ICS Source: MTMSICSAW_00085

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Beryllium		**-0.0670**	
Aluminum	*50000*	*33680*	*67*
Antimony		*-0.0400*	
Arsenic		*-0.0950*	
Barium		*-0.0910*	
Boron		*-0.782*	
Cadmium		*0.868*	
Calcium	*50000*	*49850*	*100*
Chromium		*-0.0070*	
Cobalt		*-0.0050*	
Copper		*0.328*	
Iron	*50000*	*48040*	*96*
Lead		*-0.142*	
Magnesium	*50000*	*48060*	*96*
Manganese		*-1.31*	
Molybdenum	*1000*	*1009*	*101*
Nickel		*-0.132*	
Potassium	*50000*	*49740*	*99*
Selenium		*-0.116*	
Silver		*-0.0480*	
Sodium	*50000*	*48550*	*97*
Strontium		*0.246*	
Thallium		*-0.0770*	
Tin		*-0.288*	
Titanium	*1000*	*1000*	*100*
Tungsten		*0.0670*	
Vanadium		*-0.0610*	
Zinc		*-3.82*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICSAB 240-335609/9 Instrument ID: I11

Lab File ID: I11071018B.csv ICS Source: MTMSICSABW_00084

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Beryllium	**100**	**97.4**	**97**
Aluminum	*50000*	*33970*	*68*
Antimony	*100*	*100*	*100*
Arsenic	*100*	*98.9*	*99*
Barium	*100*	*98.3*	*98*
Boron	*100*	*87.3*	*87*
Cadmium	*100*	*99.9*	*100*
Calcium	*50000*	*49440*	*99*
Chromium	*100*	*97.7*	*98*
Cobalt	*100*	*97.2*	*97*
Copper	*100*	*96.6*	*97*
Iron	*50000*	*48690*	*97*
Lead	*100*	*102*	*102*
Magnesium	*50000*	*48780*	*98*
Manganese	*100*	*137*	*137*
Molybdenum	*1100*	*1122*	*102*
Nickel	*100*	*97.7*	*98*
Potassium	*50000*	*49490*	*99*
Selenium	*100*	*96.2*	*96*
Silver	*100*	*97.6*	*98*
Sodium	*50000*	*48850*	*98*
Strontium	*100*	*97.6*	*98*
Thallium	*100*	*100*	*100*
Tin	*100*	*99.3*	*99*
Titanium	*1100*	*1101*	*100*
Tungsten	*100*	*103*	*103*
Vanadium	*100*	*97.0*	*97*
Zinc	*100*	*95.7*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 MS
Lab ID: 240-98038-8 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	97.3		0.57	U	100	97	75-125		6020A
Dissolved Antimony	97.3		0.57	U	100	97	75-125		6020A
Arsenic	1020		1.3	J	1000	102	75-125		6020A
Dissolved Arsenic	1020		1.3	J	1000	102	75-125		6020A
Barium	1070		71		1000	100	75-125		6020A
Dissolved Barium	1070		71		1000	100	75-125		6020A
Beryllium	1020		0.31	U	1000	102	75-125		6020A
Dissolved Beryllium	1020		0.31	U	1000	102	75-125		6020A
Cadmium	966		0.21	U	1000	97	75-125		6020A
Dissolved Cadmium	966		0.21	U	1000	97	75-125		6020A
Cobalt	999		0.20	J	1000	100	75-125		6020A
Dissolved Cobalt	999		0.20	J	1000	100	75-125		6020A
Chromium	965		0.98	U	1000	96	75-125		6020A
Dissolved Chromium	965		0.98	U	1000	96	75-125		6020A
Copper	977		1.7	U	1000	98	75-125		6020A
Dissolved Copper	977		1.7	U	1000	98	75-125		6020A
Dissolved Iron	10900		1100		10000	98	75-125		6020A
Iron	10900		1100		10000	98	75-125		6020A
Dissolved Manganese	1420		510		1000	91	75-125		6020A
Manganese	1420		510		1000	91	75-125		6020A
Dissolved Molybdenum	89.5		1.1	U	100	89	75-125		6020A
Molybdenum	89.5		1.1	U	100	89	75-125		6020A
Dissolved Nickel	966		1.5	U	1000	97	75-125		6020A
Nickel	966		1.5	U	1000	97	75-125		6020A
Dissolved Lead	857		0.45	U	1000	86	75-125		6020A
Lead	857		0.45	U	1000	86	75-125		6020A
Dissolved Selenium	1030		0.89	U	1000	103	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 MS
Lab ID: 240-98038-8 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Selenium	1030		0.89	U	1000	103	75-125		6020A
Dissolved Thallium	245		0.20	U	250	98	75-125		6020A
Thallium	245		0.20	U	250	98	75-125		6020A
Dissolved Vanadium	971		0.82	U	1000	97	75-125		6020A
Dissolved Zinc	977		15	U	1000	98	75-125		6020A
Vanadium	971		0.82	U	1000	97	75-125		6020A
Zinc	977		15	U	1000	98	75-125		6020A
Dissolved Silver	99.4		0.053	U	100	99	75-125		6020A
Silver	99.4		0.053	U	100	99	75-125		6020A
Mercury	0.952		0.13	U	1.00	95	80-120		7470A
Mercury, Dissolved	0.952		0.13	U	1.00	95	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: DMW-17I-070518 MS
Lab ID: 240-98135-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.985		0.13	U	1.00	98	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: DMW-17I-070518 MS
Lab ID: 240-98135-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	100		51		100	49	75-125	F1	6020A
Arsenic	1090		52		1000	104	75-125		6020A
Barium	1020		50		1000	97	75-125		6020A
Beryllium	1100		51		1000	105	75-125		6020A
Cadmium	999		49		1000	95	75-125		6020A
Cobalt	1180		53		1000	113	75-125		6020A
Chromium	1080		51		1000	103	75-125		6020A
Copper	1090		2.5		1000	109	75-125		6020A
Iron	17600		13000		10000	46	75-125	F1	6020A
Manganese	1100		250		1000	85	75-125		6020A
Molybdenum	94.9		49		100	46	75-125	F1	6020A
Nickel	1170		53		1000	112	75-125		6020A
Lead	1060		49		1000	101	75-125		6020A
Selenium	1040		50		1000	99	75-125		6020A
Thallium	265		49		250	86	75-125		6020A
Vanadium	1060		50		1000	101	75-125		6020A
Zinc	1170		53		1000	112	75-125		6020A
Silver	97.5		49		100	49	75-125	F1	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: DMW-17I-070518 MS
Lab ID: 240-98135-3 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Antimony	101		0.57	U	100	101	75-125		6020A
Dissolved Arsenic	1070		19		1000	105	75-125		6020A
Dissolved Barium	1030		15		1000	102	75-125		6020A
Dissolved Beryllium	1070		0.73	J	1000	107	75-125		6020A
Dissolved Cadmium	1000		0.21	U	1000	100	75-125		6020A
Dissolved Cobalt	1160		28		1000	113	75-125		6020A
Dissolved Chromium	1080		0.98	U	1000	108	75-125		6020A
Dissolved Copper	1070		1.7	U	1000	107	75-125		6020A
Dissolved Iron	16500		6200		10000	104	75-125		6020A
Dissolved Manganese	1090		58		1000	104	75-125		6020A
Dissolved Molybdenum	94.6		1.1	U	100	95	75-125		6020A
Dissolved Nickel	1160		35		1000	113	75-125		6020A
Dissolved Lead	1040		0.52	J	1000	104	75-125		6020A
Dissolved Selenium	1030		0.89	U	1000	103	75-125		6020A
Dissolved Zinc	1120		38		1000	109	75-125		6020A
Dissolved Thallium	259		0.20	U	250	103	75-125		6020A
Dissolved Vanadium	1050		0.93	J	1000	105	75-125		6020A
Dissolved Silver	97.6		0.053	U	100	98	75-125		6020A
Mercury, Dissolved	0.980		0.13	U	1.00	98	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-18I-070918 MS
Lab ID: 240-98264-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.797		0.13	U	1.00	80	80-120		7470A
Mercury, Dissolved	0.797		0.13	U	1.00	80	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18I-070918 MS
Lab ID: 240-98264-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	281000		230000		50000	98	75-125	4	6010C
Potassium	95700		42000		50000	107	75-125		6010C
Magnesium	263000		210000		50000	102	75-125	4	6010C
Sodium	499000		450000		50000	92	75-125	4	6010C
SiO2, Silica	31100		29000		2140	118	75-125	4	6010C
Antimony	92.4		0.57	U	100	92	75-125		6020A
Arsenic	1020		1.7	J	1000	102	75-125		6020A
Barium	1150		100		1000	104	75-125		6020A
Beryllium	1200		0.34	J	1000	120	75-125	^	6020A
Dissolved Beryllium	1200		0.34	J	1000	120	75-125	^	6020A
Cadmium	963		1.5		1000	96	75-125		6020A
Cobalt	1030		1.9		1000	103	75-125		6020A
Chromium	1010		2.5		1000	101	75-125		6020A
Copper	975		1.9	J	1000	97	75-125		6020A
Dissolved Iron	290000		300000		10000	-67	75-125	4	6020A
Iron	290000		300000		10000	-67	75-125	4	6020A
Manganese	4780		3900		1000	93	75-125		6020A
Molybdenum	102		1.8	J	100	101	75-125		6020A
Nickel	1020		3.2		1000	102	75-125		6020A
Lead	957		0.45	U	1000	96	75-125		6020A
Selenium	1070		1.4	J	1000	107	75-125		6020A
Thallium	245		0.20	U	250	98	75-125		6020A
Vanadium	1030		2.7	J	1000	103	75-125		6020A
Zinc	955		26		1000	93	75-125		6020A
Silver	94.0		0.053	U	100	94	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-18S-071018 MS Lab ID: 240-98320-1 MS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.830		0.13	U	1.00	83	80-120		7470A
Mercury, Dissolved	0.830		0.13	U	1.00	83	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18S-071018 MS
Lab ID: 240-98320-1 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	214000		170000		50000	95	75-125		6010C
Potassium	88800		36000		50000	105	75-125		6010C
Magnesium	180000		130000		50000	96	75-125		6010C
Sodium	432000		380000		50000	96	75-125	4	6010C
SiO2, Silica	36700		31000		2140	274	75-125	4	6010C
Antimony	102		0.86	J	100	101	75-125		6020A
Dissolved Antimony	102		0.86	J	100	101	75-125		6020A
Arsenic	1050		2.5	J	1000	104	75-125		6020A
Dissolved Arsenic	1050		2.5	J	1000	104	75-125		6020A
Barium	1250		180		1000	107	75-125		6020A
Dissolved Barium	1250		180		1000	107	75-125		6020A
Beryllium	1020		0.36	J	1000	102	75-125		6020A
Dissolved Beryllium	1020		0.36	J	1000	102	75-125		6020A
Cadmium	1030		0.42	J	1000	103	75-125		6020A
Dissolved Cadmium	1030		0.42	J	1000	103	75-125		6020A
Cobalt	965		2.8		1000	96	75-125		6020A
Dissolved Cobalt	965		2.8		1000	96	75-125		6020A
Chromium	987		6.6		1000	98	75-125		6020A
Dissolved Chromium	987		6.6		1000	98	75-125		6020A
Copper	967		5.5		1000	96	75-125		6020A
Dissolved Copper	967		5.5		1000	96	75-125		6020A
Dissolved Iron	116000		110000		10000	54	75-125	4	6020A
Iron	116000		110000		10000	54	75-125	4	6020A
Dissolved Manganese	2830		1900		1000	92	75-125		6020A
Manganese	2830		1900		1000	92	75-125		6020A
Dissolved Molybdenum	103		1.7	J	100	101	75-125		6020A
Molybdenum	103		1.7	J	100	101	75-125		6020A
Dissolved Nickel	996		8.0		1000	99	75-125		6020A
Nickel	996		8.0		1000	99	75-125		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18S-071018 MS | Lab ID: 240-98320-1 MS

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Lead	1040		5.0		1000	104	75-125		6020A
Lead	1040		5.0		1000	104	75-125		6020A
Dissolved Selenium	1050		1.5	J	1000	105	75-125		6020A
Selenium	1050		1.5	J	1000	105	75-125		6020A
Dissolved Thallium	253		0.20	U	250	101	75-125		6020A
Thallium	253		0.20	U	250	101	75-125		6020A
Dissolved Vanadium	1020		8.7		1000	101	75-125		6020A
Dissolved Zinc	1090		59		1000	103	75-125		6020A
Vanadium	1020		8.7		1000	101	75-125		6020A
Zinc	1090		59		1000	103	75-125		6020A
Dissolved Silver	95.9		0.066	J	100	96	75-125		6020A
Silver	95.9		0.066	J	100	96	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: DMW-5S-071018 MS
Lab ID: 240-98352-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.960		0.13	U	1.00	96	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: DMW-5S-071018 MS
Lab ID: 240-98352-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	88.8		0.57	U	100	89	75-125		6020A
Arsenic	1020		0.75	U	1000	102	75-125		6020A
Barium	1070		14		1000	105	75-125		6020A
Beryllium	1080		1.2		1000	108	75-125		6020A
Cadmium	995		1.6		1000	99	75-125		6020A
Cobalt	1160		82		1000	108	75-125		6020A
Chromium	1040		2.0		1000	104	75-125		6020A
Copper	1020		20		1000	100	75-125		6020A
Iron	73100		63000		10000	96	75-125	4	6020A
Manganese	7970		7000		1000	98	75-125	4	6020A
Molybdenum	100		1.1	U	100	100	75-125		6020A
Nickel	1110		53		1000	105	75-125		6020A
Lead	971		0.72	J	1000	97	75-125		6020A
Selenium	1040		9.2		1000	103	75-125		6020A
Thallium	245		0.20	U	250	98	75-125		6020A
Vanadium	1050		4.3	J	1000	105	75-125		6020A
Zinc	1130		93		1000	103	75-125		6020A
Silver	97.2		0.053	U	100	97	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: DMW-5S-071018 MS
Lab ID: 240-98352-2 MS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Dissolved Antimony	95.1		0.57	U	100	95	75-125		6020A
Dissolved Arsenic	1080		0.75	U	1000	108	75-125		6020A
Dissolved Barium	1130		13		1000	112	75-125		6020A
Dissolved Beryllium	1100		1.3		1000	109	75-125		6020A
Dissolved Cadmium	1100		1.5		1000	110	75-125		6020A
Dissolved Cobalt	1220		80		1000	114	75-125		6020A
Dissolved Chromium	1090		2.0		1000	109	75-125		6020A
Dissolved Copper	1090		24		1000	107	75-125		6020A
Dissolved Iron	78200		63000		10000	157	75-125	4	6020A
Dissolved Manganese	8270		6900		1000	136	75-125	4	6020A
Dissolved Molybdenum	106		1.1	U	100	106	75-125		6020A
Dissolved Nickel	1150		52		1000	110	75-125		6020A
Dissolved Lead	1010		0.82	J	1000	101	75-125		6020A
Dissolved Selenium	1100		8.6		1000	109	75-125		6020A
Dissolved Zinc	1190		92		1000	110	75-125		6020A
Dissolved Thallium	254		0.20	U	250	102	75-125		6020A
Dissolved Vanadium	1080		4.8	J	1000	108	75-125		6020A
Dissolved Silver	103		0.053	U	100	103	75-125		6020A
Mercury, Dissolved	0.959		0.13	U	1.00	96	80-120		7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 MSD
Lab ID: 240-98038-8 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	98.4		100	98	75-125	1	20		6020A
Dissolved Antimony	98.4		100	98	75-125	1	20		6020A
Arsenic	1040		1000	104	75-125	2	20		6020A
Dissolved Arsenic	1040		1000	104	75-125	2	20		6020A
Barium	1090		1000	102	75-125	2	20		6020A
Dissolved Barium	1090		1000	102	75-125	2	20		6020A
Beryllium	999		1000	100	75-125	3	20		6020A
Dissolved Beryllium	999		1000	100	75-125	3	20		6020A
Cadmium	992		1000	99	75-125	3	20		6020A
Dissolved Cadmium	992		1000	99	75-125	3	20		6020A
Cobalt	1030		1000	102	75-125	3	20		6020A
Dissolved Cobalt	1030		1000	102	75-125	3	20		6020A
Chromium	988		1000	99	75-125	2	20		6020A
Dissolved Chromium	988		1000	99	75-125	2	20		6020A
Copper	987		1000	99	75-125	1	20		6020A
Dissolved Copper	987		1000	99	75-125	1	20		6020A
Dissolved Iron	10800		10000	98	75-125	1	20		6020A
Iron	10800		10000	98	75-125	1	20		6020A
Dissolved Manganese	1480		1000	97	75-125	4	20		6020A
Manganese	1480		1000	97	75-125	4	20		6020A
Dissolved Molybdenum	91.6		100	92	75-125	2	20		6020A
Molybdenum	91.6		100	92	75-125	2	20		6020A
Dissolved Nickel	988		1000	99	75-125	2	20		6020A
Nickel	988		1000	99	75-125	2	20		6020A
Dissolved Lead	869		1000	87	75-125	1	20		6020A
Lead	869		1000	87	75-125	1	20		6020A
Dissolved Selenium	1050		1000	105	75-125	2	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 MSD
Lab ID: 240-98038-8 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Selenium	1050		1000	105	75-125	2	20		6020A
Dissolved Thallium	250		250	100	75-125	2	20		6020A
Thallium	250		250	100	75-125	2	20		6020A
Dissolved Vanadium	992		1000	99	75-125	2	20		6020A
Dissolved Zinc	992		1000	99	75-125	2	20		6020A
Vanadium	992		1000	99	75-125	2	20		6020A
Zinc	992		1000	99	75-125	2	20		6020A
Dissolved Silver	101		100	101	75-125	1	20		6020A
Silver	101		100	101	75-125	1	20		6020A
Mercury	0.851		1.00	85	80-120	11	20		7470A
Mercury, Dissolved	0.851		1.00	85	80-120	11	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: DMW-17I-070518 MSD
Lab ID: 240-98135-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.967		1.00	97	80-120	2	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: DMW-17I-070518 MSD
Lab ID: 240-98135-3 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	103		100	53	75-125	3	20	F1	6020A
Arsenic	1120		1000	107	75-125	3	20		6020A
Barium	1060		1000	101	75-125	4	20		6020A
Beryllium	1110		1000	106	75-125	1	20		6020A
Cadmium	1030		1000	98	75-125	3	20		6020A
Cobalt	1210		1000	116	75-125	3	20		6020A
Chromium	1120		1000	107	75-125	3	20		6020A
Copper	1100		1000	110	75-125	1	20		6020A
Iron	18100		10000	50	75-125	3	20	F1	6020A
Manganese	1130		1000	89	75-125	3	20		6020A
Molybdenum	97.0		100	48	75-125	2	20	F1	6020A
Nickel	1200		1000	115	75-125	3	20		6020A
Lead	1070		1000	102	75-125	1	20		6020A
Selenium	1070		1000	102	75-125	2	20		6020A
Thallium	269		250	88	75-125	1	20		6020A
Vanadium	1080		1000	103	75-125	3	20		6020A
Zinc	1190		1000	114	75-125	2	20		6020A
Silver	99.5		100	51	75-125	2	20	F1	6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: DMW-17I-070518 MSD | Lab ID: 240-98135-3 MSD

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Antimony	98.0		100	98	75-125	3	20		6020A
Dissolved Arsenic	1050		1000	103	75-125	2	20		6020A
Dissolved Barium	1020		1000	100	75-125	1	20		6020A
Dissolved Beryllium	1090		1000	109	75-125	2	20		6020A
Dissolved Cadmium	979		1000	98	75-125	3	20		6020A
Dissolved Cobalt	1140		1000	111	75-125	1	20		6020A
Dissolved Chromium	1050		1000	105	75-125	3	20		6020A
Dissolved Copper	1120		1000	112	75-125	4	20		6020A
Dissolved Iron	15900		10000	98	75-125	4	20		6020A
Dissolved Manganese	1060		1000	101	75-125	3	20		6020A
Dissolved Molybdenum	93.7		100	94	75-125	1	20		6020A
Dissolved Nickel	1140		1000	110	75-125	2	20		6020A
Dissolved Lead	1020		1000	102	75-125	2	20		6020A
Dissolved Selenium	1010		1000	101	75-125	2	20		6020A
Dissolved Zinc	1100		1000	106	75-125	2	20		6020A
Dissolved Thallium	254		250	101	75-125	2	20		6020A
Dissolved Vanadium	1030		1000	103	75-125	2	20		6020A
Dissolved Silver	97.0		100	97	75-125	1	20		6020A
Mercury, Dissolved	0.837		1.00	84	80-120	16	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-18I-070918 MSD Lab ID: 240-98264-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.658		1.00	66	80-120	19	20	F1	7470A
Mercury, Dissolved	0.658		1.00	66	80-120	19	20	F1	7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18I-070918 MSD Lab ID: 240-98264-2 MSD

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	270000		50000	75	75-125	4	20	4	6010C
Potassium	92400		50000	100	75-125	4	20		6010C
Magnesium	252000		50000	80	75-125	4	20	4	6010C
Sodium	476000		50000	46	75-125	5	20	4	6010C
SiO2, Silica	29700		2140	57	75-125	4	20	4	6010C
Antimony	92.3		100	92	75-125	0	20		6020A
Dissolved Antimony	92.3		100	92	75-125	0	20		6020A
Arsenic	1030		1000	103	75-125	1	20		6020A
Dissolved Arsenic	1030		1000	103	75-125	1	20		6020A
Barium	1140		1000	104	75-125	1	20		6020A
Dissolved Barium	1140		1000	104	75-125	1	20		6020A
Beryllium	1200		1000	120	75-125	0	20	^	6020A
Dissolved Beryllium	1200		1000	120	75-125	0	20	^	6020A
Cadmium	953		1000	95	75-125	1	20		6020A
Dissolved Cadmium	953		1000	95	75-125	1	20		6020A
Cobalt	1060		1000	105	75-125	2	20		6020A
Dissolved Cobalt	1060		1000	105	75-125	2	20		6020A
Chromium	1010		1000	101	75-125	1	20		6020A
Dissolved Chromium	1010		1000	101	75-125	1	20		6020A
Copper	983		1000	98	75-125	1	20		6020A
Dissolved Copper	983		1000	98	75-125	1	20		6020A
Dissolved Iron	295000		10000	-13	75-125	2	20	4	6020A
Iron	295000		10000	-13	75-125	2	20	4	6020A
Dissolved Manganese	4750		1000	90	75-125	1	20		6020A
Manganese	4750		1000	90	75-125	1	20		6020A
Dissolved Molybdenum	103		100	101	75-125	0	20		6020A
Molybdenum	103		100	101	75-125	0	20		6020A
Dissolved Nickel	1020		1000	102	75-125	0	20		6020A
Nickel	1020		1000	102	75-125	0	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18I-070918 MSD
Lab ID: 240-98264-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Lead	942		1000	94	75-125	2	20		6020A
Lead	942		1000	94	75-125	2	20		6020A
Dissolved Selenium	1080		1000	108	75-125	1	20		6020A
Selenium	1080		1000	108	75-125	1	20		6020A
Dissolved Thallium	238		250	95	75-125	3	20		6020A
Thallium	238		250	95	75-125	3	20		6020A
Dissolved Vanadium	1040		1000	104	75-125	1	20		6020A
Dissolved Zinc	967		1000	94	75-125	1	20		6020A
Vanadium	1040		1000	104	75-125	1	20		6020A
Zinc	967		1000	94	75-125	1	20		6020A
Dissolved Silver	94.7		100	95	75-125	1	20		6020A
Silver	94.7		100	95	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MSA-MW-18S-071018 MSD Lab ID: 240-98320-1 MSD

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.868		1.00	87	80-120	5	20		7470A
Mercury, Dissolved	0.868		1.00	87	80-120	5	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18S-071018 MSD | Lab ID: 240-98320-1 MSD

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	209000		50000	86	75-125	2	20		6010C
Potassium	87800		50000	103	75-125	1	20		6010C
Magnesium	176000		50000	88	75-125	2	20		6010C
Sodium	425000		50000	82	75-125	2	20	4	6010C
SiO2, Silica	36300		2140	255	75-125	1	20	4	6010C
Antimony	101		100	100	75-125	1	20		6020A
Dissolved Antimony	101		100	100	75-125	1	20		6020A
Arsenic	1040		1000	104	75-125	0	20		6020A
Dissolved Arsenic	1040		1000	104	75-125	0	20		6020A
Barium	1260		1000	108	75-125	1	20		6020A
Dissolved Barium	1260		1000	108	75-125	1	20		6020A
Beryllium	1010		1000	101	75-125	1	20		6020A
Dissolved Beryllium	1010		1000	101	75-125	1	20		6020A
Cadmium	1010		1000	101	75-125	2	20		6020A
Dissolved Cadmium	1010		1000	101	75-125	2	20		6020A
Cobalt	957		1000	95	75-125	1	20		6020A
Dissolved Cobalt	957		1000	95	75-125	1	20		6020A
Chromium	1010		1000	100	75-125	2	20		6020A
Dissolved Chromium	1010		1000	100	75-125	2	20		6020A
Copper	962		1000	96	75-125	0	20		6020A
Dissolved Copper	962		1000	96	75-125	0	20		6020A
Dissolved Iron	120000		10000	97	75-125	4	20	4	6020A
Iron	120000		10000	97	75-125	4	20	4	6020A
Dissolved Manganese	2910		1000	100	75-125	3	20		6020A
Manganese	2910		1000	100	75-125	3	20		6020A
Dissolved Molybdenum	104		100	103	75-125	1	20		6020A
Molybdenum	104		100	103	75-125	1	20		6020A
Dissolved Nickel	1010		1000	100	75-125	2	20		6020A
Nickel	1010		1000	100	75-125	2	20		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: MSA-MW-18S-071018 MSD Lab ID: 240-98320-1 MSD

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Lead	1010		1000	101	75-125	3	20		6020A
Lead	1010		1000	101	75-125	3	20		6020A
Dissolved Selenium	1050		1000	104	75-125	0	20		6020A
Selenium	1050		1000	104	75-125	0	20		6020A
Dissolved Thallium	247		250	99	75-125	2	20		6020A
Thallium	247		250	99	75-125	2	20		6020A
Dissolved Vanadium	1030		1000	102	75-125	0	20		6020A
Dissolved Zinc	1100		1000	105	75-125	1	20		6020A
Vanadium	1030		1000	102	75-125	0	20		6020A
Zinc	1100		1000	105	75-125	1	20		6020A
Dissolved Silver	96.6		100	96	75-125	1	20		6020A
Silver	96.6		100	96	75-125	1	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: DMW-5S-071018 MSD
Lab ID: 240-98352-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.866		1.00	87	80-120	10	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: DMW-5S-071018 MSD
Lab ID: 240-98352-2 MSD
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	90.9		100	91	75-125	2	20		6020A
Arsenic	1020		1000	102	75-125	0	20		6020A
Barium	1050		1000	104	75-125	2	20		6020A
Beryllium	1100		1000	110	75-125	2	20		6020A
Cadmium	1010		1000	101	75-125	1	20		6020A
Cobalt	1170		1000	108	75-125	1	20		6020A
Chromium	1030		1000	103	75-125	1	20		6020A
Copper	1020		1000	100	75-125	0	20		6020A
Iron	73000		10000	95	75-125	0	20	4	6020A
Manganese	7940		1000	95	75-125	0	20	4	6020A
Molybdenum	100		100	100	75-125	0	20		6020A
Nickel	1090		1000	104	75-125	1	20		6020A
Lead	967		1000	97	75-125	0	20		6020A
Selenium	1040		1000	103	75-125	1	20		6020A
Thallium	245		250	98	75-125	0	20		6020A
Vanadium	1030		1000	103	75-125	2	20		6020A
Zinc	1110		1000	102	75-125	1	20		6020A
Silver	97.2		100	97	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: DMW-5S-071018 MSD | Lab ID: 240-98352-2 MSD

Lab Name: TestAmerica Canton | Job No.: 240-98038-1

SDG No.:

Matrix: Water | Concentration Units: ug/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Dissolved Antimony	92.0		100	92	75-125	3	20		6020A
Dissolved Arsenic	1080		1000	108	75-125	0	20		6020A
Dissolved Barium	1090		1000	108	75-125	4	20		6020A
Dissolved Beryllium	1110		1000	111	75-125	2	20		6020A
Dissolved Cadmium	1020		1000	102	75-125	8	20		6020A
Dissolved Cobalt	1220		1000	114	75-125	0	20		6020A
Dissolved Chromium	1080		1000	108	75-125	1	20		6020A
Dissolved Copper	1090		1000	106	75-125	1	20		6020A
Dissolved Iron	77500		10000	150	75-125	1	20	4	6020A
Dissolved Manganese	8320		1000	141	75-125	1	20	4	6020A
Dissolved Molybdenum	103		100	103	75-125	3	20		6020A
Dissolved Nickel	1150		1000	110	75-125	0	20		6020A
Dissolved Lead	970		1000	97	75-125	4	20		6020A
Dissolved Selenium	1100		1000	109	75-125	0	20		6020A
Dissolved Zinc	1180		1000	109	75-125	1	20		6020A
Dissolved Thallium	248		250	99	75-125	3	20		6020A
Dissolved Vanadium	1080		1000	108	75-125	0	20		6020A
Dissolved Silver	99.1		100	99	75-125	3	20		6020A
Mercury, Dissolved	0.869		1.00	87	80-120	10	20		7470A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 PDS
Lab ID: 240-98038-8 PDS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	52.8		0.57	U	100	53	80-120	W	6020A
Antimony	52.8		0.57	U	100	53	80-120	W	6020A
Arsenic	564		1.3	J	1000	56	80-120	W	6020A
Arsenic	564		1.3	J	1000	56	80-120	W	6020A
Barium	592		71		1000	52	80-120	W	6020A
Barium	592		71		1000	52	80-120	W	6020A
Cadmium	540		0.21	U	1000	54	80-120	W	6020A
Cadmium	540		0.21	U	1000	54	80-120	W	6020A
Cobalt	499		0.20	J	1000	50	80-120	W	6020A
Cobalt	499		0.20	J	1000	50	80-120	W	6020A
Chromium	533		0.98	U	1000	53	80-120	W	6020A
Chromium	533		0.98	U	1000	53	80-120	W	6020A
Copper	539		1.7	U	1000	54	80-120	W	6020A
Copper	539		1.7	U	1000	54	80-120	W	6020A
Dissolved Manganese	768		510		1000	26	80-120	W	6020A
Dissolved Manganese	768		510		1000	26	80-120	W	6020A
Dissolved Molybdenum	52.5		1.1	U	100	53	80-120	W	6020A
Dissolved Molybdenum	52.5		1.1	U	100	53	80-120	W	6020A
Dissolved Nickel	535		1.5	U	1000	54	80-120	W	6020A
Dissolved Nickel	535		1.5	U	1000	54	80-120	W	6020A
Dissolved Lead	558		0.45	U	1000	56	80-120	W	6020A
Dissolved Lead	558		0.45	U	1000	56	80-120	W	6020A
Dissolved Selenium	569		0.89	U	1000	57	80-120	W	6020A
Dissolved Selenium	569		0.89	U	1000	57	80-120	W	6020A
Dissolved Thallium	137		0.20	U	250	55	80-120	W	6020A
Dissolved Thallium	137		0.20	U	250	55	80-120	W	6020A
Dissolved Vanadium	535		0.82	U	1000	53	80-120	W	6020A
Dissolved Vanadium	535		0.82	U	1000	53	80-120	W	6020A
Zinc	548		15	U	1000	55	80-120	W	6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - DISSOLVED

Client ID: MSA-MW-43S-070218 PDS
Lab ID: 240-98038-8 PDS
Lab Name: TestAmerica Canton
Job No.: 240-98038-1
SDG No.:
Matrix: Water
Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Zinc	548		15	U	1000	55	80-120	W	6020A
Dissolved Silver	52.6		0.053	U	100	53	80-120	W	6020A
Dissolved Silver	52.6		0.053	U	100	53	80-120	W	6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335663/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICP2A_00084

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49900		100	80	120		6010C
Potassium	50000	51800		104	80	120		6010C
Magnesium	50000	49700		99	80	120		6010C
Sodium	50000	48700		97	80	120		6010C
SiO2, Silica	2140	2430		113	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335884/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICP2A_00084

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	48900		98	80	120		6010C
Potassium	50000	49800		100	80	120		6010C
Magnesium	50000	48200		96	80	120		6010C
Sodium	50000	46400		93	80	120		6010C
SiO2, Silica	2140	2350		110	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334865/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.0		99	80	120		6020A
Dissolved Antimony	100	99.0		99	80	120		6020A
Arsenic	1000	976		98	80	120		6020A
Dissolved Arsenic	1000	976		98	80	120		6020A
Barium	1000	968		97	80	120		6020A
Dissolved Barium	1000	968		97	80	120		6020A
Beryllium	1000	1110		111	80	120	^	6020A
Dissolved Beryllium	1000	1110		111	80	120	^	6020A
Cadmium	1000	1000		100	80	120		6020A
Dissolved Cadmium	1000	1000		100	80	120		6020A
Cobalt	1000	1020		102	80	120		6020A
Dissolved Cobalt	1000	1020		102	80	120		6020A
Chromium	1000	994		99	80	120		6020A
Dissolved Chromium	1000	994		99	80	120		6020A
Copper	1000	1020		102	80	120		6020A
Dissolved Copper	1000	1020		102	80	120		6020A
Dissolved Iron	10000	9640		96	80	120		6020A
Iron	10000	9640		96	80	120		6020A
Dissolved Manganese	1000	993		99	80	120		6020A
Manganese	1000	993		99	80	120		6020A
Dissolved Molybdenum	100	96.1		96	80	120		6020A
Molybdenum	100	96.1		96	80	120		6020A
Dissolved Nickel	1000	1010		101	80	120		6020A
Nickel	1000	1010		101	80	120		6020A
Dissolved Lead	1000	1010		101	80	120		6020A
Lead	1000	1010		101	80	120		6020A
Dissolved Selenium	1000	968		97	80	120		6020A
Selenium	1000	968		97	80	120		6020A
Dissolved Thallium	250	254		101	80	120		6020A
Thallium	250	254		101	80	120		6020A
Dissolved Vanadium	1000	979		98	80	120		6020A
Dissolved Zinc	1000	1040		104	80	120		6020A
Vanadium	1000	979		98	80	120		6020A
Zinc	1000	1040		104	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-334865/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	102		102	80	120		6020A
Silver	100	102		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335239/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	99.8		100	80	120		6020A
Dissolved Antimony	100	99.8		100	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Dissolved Arsenic	1000	1040		104	80	120		6020A
Barium	1000	1010		101	80	120		6020A
Dissolved Barium	1000	1010		101	80	120		6020A
Beryllium	1000	1040		104	80	120		6020A
Dissolved Beryllium	1000	1040		104	80	120		6020A
Cadmium	1000	997		100	80	120		6020A
Dissolved Cadmium	1000	997		100	80	120		6020A
Cobalt	1000	1150		115	80	120		6020A
Dissolved Cobalt	1000	1150		115	80	120		6020A
Chromium	1000	1060		106	80	120		6020A
Dissolved Chromium	1000	1060		106	80	120		6020A
Dissolved Iron	10000	10500		105	80	120		6020A
Iron	10000	10500		105	80	120		6020A
Dissolved Manganese	1000	1020		102	80	120		6020A
Manganese	1000	1020		102	80	120		6020A
Dissolved Molybdenum	100	92.3		92	80	120		6020A
Molybdenum	100	92.3		92	80	120		6020A
Dissolved Nickel	1000	1110		111	80	120		6020A
Nickel	1000	1110		111	80	120		6020A
Dissolved Lead	1000	1020		102	80	120		6020A
Lead	1000	1020		102	80	120		6020A
Dissolved Selenium	1000	1030		103	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Dissolved Thallium	250	254		101	80	120		6020A
Thallium	250	254		101	80	120		6020A
Dissolved Vanadium	1000	1030		103	80	120		6020A
Dissolved Zinc	1000	1090		109	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	1090		109	80	120		6020A
Dissolved Silver	100	96.8		97	80	120		6020A
Silver	100	96.8		97	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335239/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSA_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Copper	1000	1060		106	80	120		6020A
Dissolved Copper	1000	1060		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335875/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	89.5		89	80	120		6020A
Dissolved Antimony	100	89.5		89	80	120		6020A
Arsenic	1000	1000		100	80	120		6020A
Dissolved Arsenic	1000	1000		100	80	120		6020A
Barium	1000	1030		103	80	120		6020A
Dissolved Barium	1000	1030		103	80	120		6020A
Cadmium	1000	1050		105	80	120		6020A
Dissolved Cadmium	1000	1050		105	80	120		6020A
Cobalt	1000	1090		109	80	120		6020A
Dissolved Cobalt	1000	1090		109	80	120		6020A
Chromium	1000	1030		103	80	120		6020A
Dissolved Chromium	1000	1030		103	80	120		6020A
Copper	1000	1030		103	80	120		6020A
Dissolved Copper	1000	1030		103	80	120		6020A
Dissolved Iron	10000	9980		100	80	120		6020A
Iron	10000	9980		100	80	120		6020A
Dissolved Manganese	1000	1000		100	80	120		6020A
Manganese	1000	1000		100	80	120		6020A
Dissolved Molybdenum	100	91.5		91	80	120		6020A
Molybdenum	100	91.5		91	80	120		6020A
Dissolved Nickel	1000	1070		107	80	120		6020A
Nickel	1000	1070		107	80	120		6020A
Dissolved Lead	1000	984		98	80	120		6020A
Lead	1000	984		98	80	120		6020A
Dissolved Selenium	1000	1010		101	80	120		6020A
Selenium	1000	1010		101	80	120		6020A
Dissolved Thallium	250	249		100	80	120		6020A
Thallium	250	249		100	80	120		6020A
Dissolved Vanadium	1000	1010		101	80	120		6020A
Dissolved Zinc	1000	1070		107	80	120		6020A
Vanadium	1000	1010		101	80	120		6020A
Zinc	1000	1070		107	80	120		6020A
Dissolved Silver	100	94.9		95	80	120		6020A
Silver	100	94.9		95	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335663/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	89.6		90	80	120		6020A
Dissolved Antimony	100	89.6		90	80	120		6020A
Arsenic	1000	1040		104	80	120		6020A
Dissolved Arsenic	1000	1040		104	80	120		6020A
Barium	1000	1070		107	80	120		6020A
Dissolved Barium	1000	1070		107	80	120		6020A
Cadmium	1000	1100		110	80	120		6020A
Dissolved Cadmium	1000	1100		110	80	120		6020A
Cobalt	1000	1130		113	80	120		6020A
Dissolved Cobalt	1000	1130		113	80	120		6020A
Chromium	1000	1070		107	80	120		6020A
Dissolved Chromium	1000	1070		107	80	120		6020A
Copper	1000	1100		110	80	120		6020A
Dissolved Copper	1000	1100		110	80	120		6020A
Dissolved Iron	10000	10300		103	80	120		6020A
Iron	10000	10300		103	80	120		6020A
Dissolved Manganese	1000	1030		103	80	120		6020A
Manganese	1000	1030		103	80	120		6020A
Dissolved Molybdenum	100	95.3		95	80	120		6020A
Molybdenum	100	95.3		95	80	120		6020A
Dissolved Nickel	1000	1110		111	80	120		6020A
Nickel	1000	1110		111	80	120		6020A
Dissolved Lead	1000	1000		100	80	120		6020A
Lead	1000	1000		100	80	120		6020A
Dissolved Selenium	1000	1030		103	80	120		6020A
Selenium	1000	1030		103	80	120		6020A
Dissolved Thallium	250	250		100	80	120		6020A
Thallium	250	250		100	80	120		6020A
Dissolved Vanadium	1000	1030		103	80	120		6020A
Dissolved Zinc	1000	1110		111	80	120		6020A
Vanadium	1000	1030		103	80	120		6020A
Zinc	1000	1110		111	80	120		6020A
Dissolved Silver	100	98.3		98	80	120		6020A
Silver	100	98.3		98	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335663/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSA_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Beryllium	1000	1160		116	80	120	^	6020A
Dissolved Beryllium	1000	1160		116	80	120	^	6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335884/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	101		101	80	120		6020A
Dissolved Antimony	100	101		101	80	120		6020A
Arsenic	1000	1030		103	80	120		6020A
Dissolved Arsenic	1000	1030		103	80	120		6020A
Barium	1000	1070		107	80	120		6020A
Dissolved Barium	1000	1070		107	80	120		6020A
Beryllium	1000	980		98	80	120		6020A
Dissolved Beryllium	1000	980		98	80	120		6020A
Cadmium	1000	1090		109	80	120		6020A
Dissolved Cadmium	1000	1090		109	80	120		6020A
Cobalt	1000	1010		101	80	120		6020A
Dissolved Cobalt	1000	1010		101	80	120		6020A
Chromium	1000	1010		101	80	120		6020A
Dissolved Chromium	1000	1010		101	80	120		6020A
Copper	1000	1070		107	80	120		6020A
Dissolved Copper	1000	1070		107	80	120		6020A
Dissolved Iron	10000	9970		100	80	120		6020A
Iron	10000	9970		100	80	120		6020A
Dissolved Manganese	1000	991		99	80	120		6020A
Manganese	1000	991		99	80	120		6020A
Dissolved Molybdenum	100	94.1		94	80	120		6020A
Molybdenum	100	94.1		94	80	120		6020A
Dissolved Nickel	1000	968		97	80	120		6020A
Nickel	1000	968		97	80	120		6020A
Dissolved Lead	1000	1050		105	80	120		6020A
Lead	1000	1050		105	80	120		6020A
Dissolved Selenium	1000	1010		101	80	120		6020A
Selenium	1000	1010		101	80	120		6020A
Dissolved Thallium	250	254		102	80	120		6020A
Thallium	250	254		102	80	120		6020A
Dissolved Vanadium	1000	1010		101	80	120		6020A
Dissolved Zinc	1000	993		99	80	120		6020A
Vanadium	1000	1010		101	80	120		6020A
Zinc	1000	993		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335884/3-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	97.2		97	80	120		6020A
Silver	100	97.2		97	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335875/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Antimony	100	98.6		99	80	120		6020A
Dissolved Antimony	100	98.6		99	80	120		6020A
Arsenic	1000	1020		102	80	120		6020A
Dissolved Arsenic	1000	1020		102	80	120		6020A
Barium	1000	1070		107	80	120		6020A
Dissolved Barium	1000	1070		107	80	120		6020A
Beryllium	1000	1100		110	80	120		6020A
Dissolved Beryllium	1000	1100		110	80	120		6020A
Cadmium	1000	1060		106	80	120		6020A
Dissolved Cadmium	1000	1060		106	80	120		6020A
Cobalt	1000	1040		104	80	120		6020A
Dissolved Cobalt	1000	1040		104	80	120		6020A
Chromium	1000	1020		102	80	120		6020A
Dissolved Chromium	1000	1020		102	80	120		6020A
Copper	1000	1080		108	80	120		6020A
Dissolved Copper	1000	1080		108	80	120		6020A
Dissolved Iron	10000	10200		102	80	120		6020A
Iron	10000	10200		102	80	120		6020A
Dissolved Manganese	1000	985		99	80	120		6020A
Manganese	1000	985		99	80	120		6020A
Dissolved Molybdenum	100	94.4		94	80	120		6020A
Molybdenum	100	94.4		94	80	120		6020A
Dissolved Nickel	1000	960		96	80	120		6020A
Nickel	1000	960		96	80	120		6020A
Dissolved Lead	1000	1060		106	80	120		6020A
Lead	1000	1060		106	80	120		6020A
Dissolved Selenium	1000	1040		104	80	120		6020A
Selenium	1000	1040		104	80	120		6020A
Dissolved Thallium	250	258		103	80	120		6020A
Thallium	250	258		103	80	120		6020A
Dissolved Vanadium	1000	1020		102	80	120		6020A
Dissolved Zinc	1000	1020		102	80	120		6020A
Vanadium	1000	1020		102	80	120		6020A
Zinc	1000	1020		102	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 240-335875/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTICPMSB_00035

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Dissolved Silver	100	98.6		99	80	120		6020A
Silver	100	98.6		99	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-334866/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTHGCALW_01864

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.86		97	80	120		7470A
Mercury, Dissolved	5.00	4.86		97	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-335241/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTHGCALW_01866

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.75		95	80	120		7470A
Mercury, Dissolved	5.00	4.75		95	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-335668/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTHGCALW_01869

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.59		92	80	120		7470A
Mercury, Dissolved	5.00	4.59		92	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-335883/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTHGCALW_01870

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.46		89	80	120		7470A
Mercury, Dissolved	5.00	4.46		89	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-335886/2-A

Lab Name: TestAmerica Canton Job No.: 240-98038-1

Sample Matrix: Water LCS Source: MTHGCALW_01870

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	5.00	4.66		93	80	120		7470A
Mercury, Dissolved	5.00	4.66		93	80	120		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98264-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	230000		236000		1.8		6010C
Potassium	42000		40700		3.7		6010C
Magnesium	210000		214000		1.2		6010C
Sodium	450000		453000		0.07		6010C
SiO2, Silica	29000		28300		0.98		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98320-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	170000		167000		0.20		6010C
Potassium	36000		35500		2.3		6010C
Magnesium	130000		132000		0.34		6010C
Sodium	380000		395000		3.0		6010C
SiO2, Silica	31000		30600		0.74		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-98038-8

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	1.3	J	3.8	U	NC		6020A
Barium	71		72.1		NC		6020A
Dissolved Beryllium	0.31	U	1.5	U	NC		6020A
Dissolved Beryllium	0.31	U	1.5	U	NC		6020A
Cadmium	0.21	U	1.1	U	NC		6020A
Cobalt	0.20	J	0.95	U	NC		6020A
Chromium	0.98	U	4.9	U	NC		6020A
Copper	1.7	U	8.5	U	NC		6020A
Dissolved Iron	650		1090		NC		6020A
Dissolved Iron	650		1090		NC		6020A
Dissolved Manganese	510		660		30	V	6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	1.5	U	7.4	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	0.82	U	4.1	U	NC		6020A
Zinc	15	U	75	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98135-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Copper	2.5		8.5	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-98135-3

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	19		20.1	J	NC		6020A
Barium	15		15.3	J	NC		6020A
Beryllium	0.73	J	1.63	J	NC		6020A
Cadmium	0.21	U	1.1	U	NC		6020A
Cobalt	28		28.4		NC		6020A
Chromium	0.98	U	4.9	U	NC		6020A
Copper	1.7	U	8.5	U	NC		6020A
Dissolved Iron	6200		6250		NC		6020A
Dissolved Manganese	58		57.4		NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	35		35.2		NC		6020A
Dissolved Lead	0.52	J	2.3	U	NC		6020A
Dissolved Selenium	0.89	U	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	0.93	J	4.1	U	NC		6020A
Zinc	38		75	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98264-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	1.7	J	3.8	U	NC		6020A
Arsenic	1.7	J	3.8	U	NC		6020A
Barium	100		104		NC		6020A
Barium	100		104		NC		6020A
Beryllium	0.34	J	1.5	U	NC	^	6020A
Beryllium	0.34	J	1.5	U	NC	^	6020A
Cadmium	1.5		1.57	J	NC		6020A
Cadmium	1.5		1.57	J	NC		6020A
Cobalt	1.9		1.98	J	NC		6020A
Cobalt	1.9		1.98	J	NC		6020A
Chromium	2.5		4.9	U	NC		6020A
Chromium	2.5		4.9	U	NC		6020A
Copper	1.9	J	8.5	U	NC		6020A
Copper	1.9	J	8.5	U	NC		6020A
Dissolved Iron	280000		297000		7.4		6020A
Dissolved Iron	280000		297000		7.4		6020A
Dissolved Iron	300000		319000		7.7		6020A
Dissolved Iron	300000		319000		7.7		6020A
Dissolved Manganese	3900		4060		5.4		6020A
Dissolved Manganese	3900		4060		5.4		6020A
Dissolved Molybdenum	1.8	J	5.4	U	NC		6020A
Dissolved Molybdenum	1.8	J	5.4	U	NC		6020A
Dissolved Nickel	3.2		7.4	U	NC		6020A
Dissolved Nickel	3.2		7.4	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Lead	0.45	U	2.3	U	NC		6020A
Dissolved Selenium	1.4	J	4.5	U	NC		6020A
Dissolved Selenium	1.4	J	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	2.7	J	4.1	U	NC		6020A
Dissolved Vanadium	2.7	J	4.1	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98264-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Zinc	26		75	U	NC		6020A
Zinc	26		75	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98320-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.86	J	2.9	U	NC		6020A
Antimony	0.86	J	2.9	U	NC		6020A
Arsenic	2.5	J	3.8	U	NC		6020A
Arsenic	2.5	J	3.8	U	NC		6020A
Barium	180		179		NC		6020A
Barium	180		179		NC		6020A
Beryllium	0.36	J	1.5	U	NC		6020A
Beryllium	0.36	J	1.5	U	NC		6020A
Cadmium	0.42	J	1.1	U	NC		6020A
Cadmium	0.42	J	1.1	U	NC		6020A
Cobalt	2.8		2.90	J	NC		6020A
Cobalt	2.8		2.90	J	NC		6020A
Chromium	6.6		6.61	J	NC		6020A
Chromium	6.6		6.61	J	NC		6020A
Copper	5.5		8.5	U	NC		6020A
Copper	5.5		8.5	U	NC		6020A
Dissolved Iron	110000		113000		2.4		6020A
Dissolved Iron	110000		113000		2.4		6020A
Dissolved Manganese	1900		1980		3.7		6020A
Dissolved Manganese	1900		1980		3.7		6020A
Dissolved Molybdenum	1.7	J	5.4	U	NC		6020A
Dissolved Molybdenum	1.7	J	5.4	U	NC		6020A
Dissolved Nickel	8.0		7.84	J	NC		6020A
Dissolved Nickel	8.0		7.84	J	NC		6020A
Dissolved Lead	5.0		5.28		NC		6020A
Dissolved Lead	5.0		5.28		NC		6020A
Dissolved Selenium	1.5	J	4.5	U	NC		6020A
Dissolved Selenium	1.5	J	4.5	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	8.7		8.87	J	NC		6020A
Dissolved Vanadium	8.7		8.87	J	NC		6020A
Zinc	59		75	U	NC		6020A
Zinc	59		75	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98320-1

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.066	J	0.27	U	NC		6020A
Dissolved Silver	0.066	J	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98352-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	14		14.0	J	NC		6020A
Barium	14		13.7	J	NC		6020A
Beryllium	1.2		1.5	U	NC		6020A
Cadmium	1.6		1.52	J	NC		6020A
Cadmium	1.6		1.57	J	NC		6020A
Cobalt	80		83.2		NC		6020A
Cobalt	82		87.0		NC		6020A
Chromium	2.0		4.9	U	NC		6020A
Chromium	2.0		4.9	U	NC		6020A
Copper	21		21.7		NC		6020A
Copper	20		22.8		NC		6020A
Dissolved Iron	63000		67600		6.4		6020A
Dissolved Iron	66000		67100		2.0		6020A
Dissolved Manganese	7100		7330		3.7		6020A
Dissolved Manganese	7000		7500		7.3		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	50		52.3		NC		6020A
Dissolved Nickel	53		54.5		NC		6020A
Dissolved Lead	0.72	J	2.3	U	NC		6020A
Dissolved Lead	0.68	J	2.3	U	NC		6020A
Dissolved Selenium	10		9.27	J	NC		6020A
Dissolved Selenium	9.2		10.1	J	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	4.2	J	4.1	U	NC		6020A
Dissolved Vanadium	4.3	J	4.36	J	NC		6020A
Zinc	93		98.7	J	NC		6020A
Zinc	88		100		NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 240-98352-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-98352-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.57	U	2.9	U	NC		6020A
Antimony	0.57	U	2.9	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Arsenic	0.75	U	3.8	U	NC		6020A
Barium	13		15.2	J	NC		6020A
Barium	13		13.2	J	NC		6020A
Beryllium	1.3		1.73	J	NC		6020A
Cadmium	1.6		1.69	J	NC		6020A
Cadmium	1.5		1.59	J	NC		6020A
Cobalt	77		82.4		NC		6020A
Cobalt	80		85.4		NC		6020A
Chromium	2.0		4.9	U	NC		6020A
Chromium	2.2		4.9	U	NC		6020A
Copper	24		26.3		NC		6020A
Copper	24		26.6		NC		6020A
Dissolved Iron	63000		64900		3.8		6020A
Dissolved Iron	63000		66300		5.2		6020A
Dissolved Manganese	6900		7250		5.1		6020A
Dissolved Manganese	6900		7060		2.0		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Molybdenum	1.1	U	5.4	U	NC		6020A
Dissolved Nickel	49		51.1		NC		6020A
Dissolved Nickel	52		52.4		NC		6020A
Dissolved Lead	0.82	J	2.3	U	NC		6020A
Dissolved Lead	0.89	J	2.3	U	NC		6020A
Dissolved Selenium	9.9		10.4	J	NC		6020A
Dissolved Selenium	8.6		8.92	J	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Thallium	0.20	U	1.0	U	NC		6020A
Dissolved Vanadium	4.8	J	4.78	J	NC		6020A
Dissolved Vanadium	4.7	J	4.46	J	NC		6020A
Zinc	84		104		NC		6020A
Zinc	92		101		NC		6020A
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-98352-2

SDG No:

Lab Name: TestAmerica Canton Job No: 240-98038-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Dissolved Silver	0.053	U	0.27	U	NC		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C MDL Date: 12/15/2017 12:49

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	317.933	5000	307
Magnesium	279.078	5000	776.427
Potassium	766.491	5000	556.95
SiO2, Silica	251.6	1070	180.364
Sodium	330.232	5000	559.94

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I12

Method: 6010C XMDL Date: 12/15/2017 12:49

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	317.933	5000	307
Magnesium	279.078	5000	776.427
Potassium	766.491	5000	556.95
SiO2, Silica	251.6	1070	180.364
Sodium	330.232	5000	559.94

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	121.00	2	0.57
Arsenic	75.00	5	0.75
Barium	137.00	5	2.23
Beryllium	9.00	1	0.305
Cadmium	111.00	1	0.212
Chromium	52.00	2	0.98
Cobalt	59.00	1	0.19
Copper	65.00	2	1.7
Iron	56.00	100	47
Lead	208.00	1	0.45
Manganese	55.00	5	2.06
Molybdenum	95.00	5	1.08
Nickel	60.00	2	1.47
Selenium	78.00	5	0.89
Silver	107.00	1	0.053
Thallium	205.00	1	0.2
Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I10

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A MDL Date: 04/27/2017 13:23

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: I11

Method: 6020A XMDL Date: 04/27/2017 13:25

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Dissolved Antimony	121.00	2	0.57
Dissolved Arsenic	75.00	5	0.75
Dissolved Barium	137.00	5	2.23
Dissolved Beryllium	9.00	1	0.305
Dissolved Cadmium	111.00	1	0.212
Dissolved Chromium	52.00	2	0.98
Dissolved Cobalt	59.00	1	0.19
Dissolved Copper	65.00	2	1.7
Dissolved Iron	56.00	100	47
Dissolved Lead	208.00	1	0.45
Dissolved Manganese	55.00	5	2.06
Dissolved Molybdenum	95.00	5	1.08
Dissolved Nickel	60.00	2	1.47
Dissolved Selenium	78.00	5	0.89
Dissolved Silver	107.00	1	0.053
Dissolved Thallium	205.00	1	0.2
Dissolved Vanadium	51.00	5	0.82

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.13

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A MDL Date: 02/22/2017 15:12

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: H3

Method: 7470A XMDL Date: 02/22/2017 15:12

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury, Dissolved	253.7	0.2	0.13

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG No.:

ICP-AES Instrument ID: I12 Date: 06/26/2018

Analyte	Wave Length	Al	As	Ca	Co	Cr	Cu	Fe	Mn	Mo	Ni	Si	Ti	V	
Aluminum										0.034040				0.056989	
Antimony		-0.00006			-0.000422			-0.000035						0.002232	
Arsenic		0.000009			-0.000202	0.00931			-0.0003555	0.002275					
Beryllium														0.000235	
Cadmium			0.012308					0.000004							
Chromium									0.000415						
Cobalt													0.002128		
Copper				0.000018	0.000361			-0.000032					-0.003157		
Lead		-0.000091					0.000101	0.000048			0.000131	0.000025			
Lithium				0.000011											
Nickel					0.000518			0.000059							
Selenium		-0.000032							0.000338						
Thallium		0.000034			0.003802			-0.000025	-0.000449					0.001371	
Vanadium								0.000064							
Zinc						-0.001092									

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-98038-1

SDG No.:

Instrument ID: I12 Date: 06/27/2018 09:21

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		800000	6010C
Potassium		500000	6010C
Magnesium		500000	6010C
Sodium		500000	6010C
SiO2, Silica		428000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-98038-1

SDG No.:

Instrument ID: I10 Date: 03/28/2018 15:06

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		200	6020A
Dissolved Antimony		200	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		5000	6020A
Dissolved Cobalt		5000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		4000	6020A
Lead		4000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Dissolved Zinc		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Zinc		10000	6020A
Dissolved Silver		300	6020A
Silver		300	6020A

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Canton Job No: 240-98038-1

SDG No.:

Instrument ID: I11 Date: 05/22/2018 10:50

Analyte	Integ. Time (Sec.)	Concentration (ppb)	Method
Antimony		1000	6020A
Dissolved Antimony		1000	6020A
Arsenic		10000	6020A
Dissolved Arsenic		10000	6020A
Barium		10000	6020A
Dissolved Barium		10000	6020A
Beryllium		2000	6020A
Dissolved Beryllium		2000	6020A
Cadmium		4000	6020A
Dissolved Cadmium		4000	6020A
Cobalt		2000	6020A
Dissolved Cobalt		2000	6020A
Chromium		10000	6020A
Dissolved Chromium		10000	6020A
Copper		10000	6020A
Dissolved Copper		10000	6020A
Dissolved Iron		200000	6020A
Iron		200000	6020A
Dissolved Manganese		10000	6020A
Manganese		10000	6020A
Dissolved Molybdenum		2000	6020A
Molybdenum		2000	6020A
Dissolved Nickel		10000	6020A
Nickel		10000	6020A
Dissolved Lead		3000	6020A
Lead		3000	6020A
Dissolved Selenium		10000	6020A
Selenium		10000	6020A
Thallium		2000	6020A
Dissolved Thallium		2000	6020A
Vanadium		10000	6020A
Dissolved Vanadium		10000	6020A
Dissolved Silver		500	6020A
Silver		500	6020A

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335663/1-A	07/11/2018 14:00	335663		50	50
LCS 240-335663/2-A	07/11/2018 14:00	335663		50	50
240-98264-2	07/11/2018 14:00	335663		50	50
240-98264-2 MS	07/11/2018 14:00	335663		50	50
240-98264-2 MSD	07/11/2018 14:00	335663		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335884/1-A	07/12/2018 14:00	335884		50	50
LCS 240-335884/2-A	07/12/2018 14:00	335884		50	50
240-98320-1	07/12/2018 14:00	335884		50	50
240-98320-1 MS	07/12/2018 14:00	335884		50	50
240-98320-1 MSD	07/12/2018 14:00	335884		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334865/1-A	07/05/2018 15:30	334865		50	50
LCS 240-334865/2-A	07/05/2018 15:30	334865		50	50
240-98038-2	07/05/2018 15:30	334865		50	50
240-98038-2	07/05/2018 15:30	334865		50	50
240-98038-3	07/05/2018 15:30	334865		50	50
240-98038-3	07/05/2018 15:30	334865		50	50
240-98038-4	07/05/2018 15:30	334865		50	50
240-98038-4	07/05/2018 15:30	334865		50	50
240-98038-5	07/05/2018 15:30	334865		50	50
240-98038-5	07/05/2018 15:30	334865		50	50
240-98038-6	07/05/2018 15:30	334865		50	50
240-98038-6	07/05/2018 15:30	334865		50	50
240-98038-7	07/05/2018 15:30	334865		50	50
240-98038-7	07/05/2018 15:30	334865		50	50
240-98038-8	07/05/2018 15:30	334865		50	50
240-98038-8	07/05/2018 15:30	334865		50	50
240-98038-8 MS	07/05/2018 15:30	334865		50	50
240-98038-8 MSD	07/05/2018 15:30	334865		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335239/1-A	07/09/2018 14:00	335239		50	50
LCS 240-335239/3-A	07/09/2018 14:00	335239		50	50
240-98135-3	07/09/2018 14:00	335239		50	50
240-98135-3 MS	07/09/2018 14:00	335239		50	50
240-98135-3 MSD	07/09/2018 14:00	335239		50	50
240-98135-3	07/09/2018 14:00	335239		50	50
240-98135-3 MS	07/09/2018 14:00	335239		50	50
240-98135-3 MSD	07/09/2018 14:00	335239		50	50
240-98135-2	07/09/2018 14:00	335239		50	50
240-98135-2	07/09/2018 14:00	335239		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335663/1-A	07/11/2018 14:00	335663		50	50
LCS 240-335663/3-A	07/11/2018 14:00	335663		50	50
240-98264-2	07/11/2018 14:00	335663		50	50
240-98264-2 MS	07/11/2018 14:00	335663		50	50
240-98264-2 MSD	07/11/2018 14:00	335663		50	50
240-98264-2	07/11/2018 14:00	335663		50	50
240-98264-3	07/11/2018 14:00	335663		50	50
240-98264-3	07/11/2018 14:00	335663		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335875/1-A	07/12/2018 14:00	335875		50	50
LCS 240-335875/2-A	07/12/2018 14:00	335875		50	50
240-98352-2	07/12/2018 14:00	335875		50	50
240-98352-2 MS	07/12/2018 14:00	335875		50	50
240-98352-2 MSD	07/12/2018 14:00	335875		50	50
240-98352-2	07/12/2018 14:00	335875		50	50
240-98352-2 MS	07/12/2018 14:00	335875		50	50
240-98352-2 MSD	07/12/2018 14:00	335875		50	50
240-98352-3	07/12/2018 14:00	335875		50	50
240-98352-3	07/12/2018 14:00	335875		50	50
240-98352-4	07/12/2018 14:00	335875		50	50
240-98352-4	07/12/2018 14:00	335875		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335884/1-A	07/12/2018 14:00	335884		50	50
LCS 240-335884/3-A	07/12/2018 14:00	335884		50	50
240-98320-1	07/12/2018 14:00	335884		50	50
240-98320-1 MS	07/12/2018 14:00	335884		50	50
240-98320-1 MSD	07/12/2018 14:00	335884		50	50
240-98320-1	07/12/2018 14:00	335884		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-334866/1-A	07/05/2018 14:00	334866		50	50
LCS 240-334866/2-A	07/05/2018 14:00	334866		50	50
240-98038-2	07/05/2018 14:00	334866		50	50
240-98038-2	07/05/2018 14:00	334866		50	50
240-98038-3	07/05/2018 14:00	334866		50	50
240-98038-3	07/05/2018 14:00	334866		50	50
240-98038-4	07/05/2018 14:00	334866		50	50
240-98038-4	07/05/2018 14:00	334866		50	50
240-98038-5	07/05/2018 14:00	334866		50	50
240-98038-5	07/05/2018 14:00	334866		50	50
240-98038-6	07/05/2018 14:00	334866		50	50
240-98038-6	07/05/2018 14:00	334866		50	50
240-98038-7	07/05/2018 14:00	334866		50	50
240-98038-7	07/05/2018 14:00	334866		50	50
240-98038-8	07/05/2018 14:00	334866		50	50
240-98038-8	07/05/2018 14:00	334866		50	50
240-98038-8 MS	07/05/2018 14:00	334866		50	50
240-98038-8 MSD	07/05/2018 14:00	334866		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335241/1-A	07/09/2018 14:00	335241		50	50
LCS 240-335241/2-A	07/09/2018 14:00	335241		50	50
240-98135-3	07/09/2018 14:00	335241		50	50
240-98135-3 MS	07/09/2018 14:00	335241		50	50
240-98135-3 MSD	07/09/2018 14:00	335241		50	50
240-98135-3	07/09/2018 14:00	335241		50	50
240-98135-3 MS	07/09/2018 14:00	335241		50	50
240-98135-3 MSD	07/09/2018 14:00	335241		50	50
240-98135-2	07/09/2018 14:00	335241		50	50
240-98135-2	07/09/2018 14:00	335241		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335668/1-A	07/11/2018 14:00	335668		50	50
LCS 240-335668/2-A	07/11/2018 14:00	335668		50	50
240-98264-2	07/11/2018 14:00	335668		50	50
240-98264-2 MS	07/11/2018 14:00	335668		50	50
240-98264-2 MSD	07/11/2018 14:00	335668		50	50
240-98264-2	07/11/2018 14:00	335668		50	50
240-98264-3	07/11/2018 14:00	335668		50	50
240-98264-3	07/11/2018 14:00	335668		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335883/1-A	07/12/2018 12:00	335883		50	50
LCS 240-335883/2-A	07/12/2018 12:00	335883		50	50
240-98352-2	07/12/2018 12:00	335883		50	50
240-98352-2 MS	07/12/2018 12:00	335883		50	50
240-98352-2 MSD	07/12/2018 12:00	335883		50	50
240-98352-2	07/12/2018 12:00	335883		50	50
240-98352-2 MS	07/12/2018 12:00	335883		50	50
240-98352-2 MSD	07/12/2018 12:00	335883		50	50
240-98352-3	07/12/2018 12:00	335883		50	50
240-98352-3	07/12/2018 12:00	335883		50	50
240-98352-4	07/12/2018 12:00	335883		50	50
240-98352-4	07/12/2018 12:00	335883		50	50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-335886/1-A	07/12/2018 12:00	335886		50	50
LCS 240-335886/2-A	07/12/2018 12:00	335886		50	50
240-98320-1	07/12/2018 12:00	335886		50	50
240-98320-1 MS	07/12/2018 12:00	335886		50	50
240-98320-1 MSD	07/12/2018 12:00	335886		50	50
240-98320-1	07/12/2018 12:00	335886		50	50

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ICIS 240-335908/1	1		07:35	X	X	X	X	X																					
CALSTD 240-335908/2 IC			07:40	X	X	X	X	X																					
CALSTD 240-335908/3 IC			07:45	X	X	X	X	X																					
ICV 240-335908/4	1		07:50	X	X	X	X	X																					
ICB 240-335908/5	1		07:54	X	X	X	X	X																					
ICVL 240-335908/6	1		07:59	X	X	X	X	X																					
ZZZZZZ			08:04																										
ICSA 240-335908/8	1		08:08	X	X	X	X																						
ICSAB 240-335908/9	1		08:13	X	X	X	X																						
CCV 240-335908/10			08:18																										
CCB 240-335908/11			08:22																										
ZZZZZZ			08:27																										
ZZZZZZ			08:32																										
ZZZZZZ			08:37																										
ZZZZZZ			08:42																										
ZZZZZZ			08:46																										
ZZZZZZ			08:51																										
CCV 240-335908/18			09:31																										
CCB 240-335908/19			09:35																										
ZZZZZZ			09:40																										
ZZZZZZ			09:45																										
ZZZZZZ			09:50																										
ZZZZZZ			09:54																										
ZZZZZZ			09:59																										
ZZZZZZ			10:04																										
ZZZZZZ			10:08																										
ZZZZZZ			10:13																										
ZZZZZZ			10:18																										
ZZZZZZ			10:22																										
CCV 240-335908/30			10:27																										
CCB 240-335908/31			10:31																										
ZZZZZZ			10:36																										
ZZZZZZ			10:41																										
ZZZZZZ			10:45																										
ZZZZZZ			10:50																										
CCV 240-335908/36	1		10:55	X	X	X	X	X																					
CCB 240-335908/37	1		10:59	X	X	X	X	X																					
MB 240-335663/1-A	1	R	11:04	X	X	X	X	X																					
LCS 240-335663/2-A	1	R	11:09	X	X	X	X	X																					
240-98264-2	1	R	11:13	X	X	X	X	X																					

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
240-98264-2 SD	5	R	11:18	X	X	X	X	X																						
ZZZZZZ			11:23																											
240-98264-2 MS	1	R	11:27	X	X	X	X	X																						
240-98264-2 MSD	1	R	11:32	X	X	X	X	X																						
ZZZZZZ			11:37																											
ZZZZZZ			11:41																											
ZZZZZZ			11:46																											
CCV 240-335908/48	1		11:51	X	X	X	X	X																						
CCB 240-335908/49	1		11:56	X	X	X	X	X																						
ZZZZZZ			12:00																											
ZZZZZZ			12:05																											
ZZZZZZ			12:10																											
ZZZZZZ			12:15																											
ZZZZZZ			12:19																											
ZZZZZZ			12:24																											
ZZZZZZ			12:28																											
ZZZZZZ			12:33																											
ZZZZZZ			12:38																											
ZZZZZZ			12:42																											
CCV 240-335908/60			12:47																											
CCB 240-335908/61			12:51																											
ZZZZZZ			12:56																											
ZZZZZZ			13:01																											
ZZZZZZ			13:05																											
ZZZZZZ			13:10																											
ZZZZZZ			13:15																											
ZZZZZZ			13:19																											
ZZZZZZ			13:24																											
ZZZZZZ			13:29																											
ZZZZZZ			13:34																											
ZZZZZZ			13:38																											
CCV 240-335908/72			13:43																											
CCB 240-335908/73			13:47																											
ZZZZZZ			13:52																											
ZZZZZZ			13:57																											
ZZZZZZ			14:01																											
ZZZZZZ			14:06																											
ZZZZZZ			14:11																											
ZZZZZZ			14:16																											
ZZZZZZ			14:21																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			14:26																											
ZZZZZZ			14:31																											
ZZZZZZ			14:36																											
CCV 240-335908/84			14:40																											
CCB 240-335908/85			14:45																											
ZZZZZZ			14:50																											
ZZZZZZ			14:54																											
ZZZZZZ			14:59																											
ZZZZZZ			15:04																											
ZZZZZZ			15:09																											
ZZZZZZ			15:14																											
ZZZZZZ			15:19																											
ZZZZZZ			15:24																											
ZZZZZZ			15:28																											
ZZZZZZ			15:33																											
CCV 240-335908/96			15:38																											
CCB 240-335908/97			15:42																											
ZZZZZZ			15:47																											
ZZZZZZ			15:52																											
ZZZZZZ			15:57																											
ZZZZZZ			16:01																											
ZZZZZZ			16:06																											
ZZZZZZ			16:11																											
ZZZZZZ			16:16																											
ZZZZZZ			16:21																											
ZZZZZZ			16:25																											
ZZZZZZ			16:30																											
CCV 240-335908/108			16:35																											
CCB 240-335908/109			16:39																											
ZZZZZZ			16:44																											
ZZZZZZ			16:49																											
ZZZZZZ			16:53																											
ZZZZZZ			16:58																											
ZZZZZZ			17:03																											
ZZZZZZ			17:08																											
ZZZZZZ			17:12																											
ZZZZZZ			17:17																											
ZZZZZZ			17:22																											
ZZZZZZ			17:27																											
CCV 240-335908/120			17:31																											

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
CCB 240-335908/121			17:36																										
ZZZZZZ			17:41																										
ZZZZZZ			17:45																										
ZZZZZZ			17:50																										
ZZZZZZ			17:55																										
ZZZZZZ			18:00																										
ZZZZZZ			18:05																										
ZZZZZZ			18:09																										
ZZZZZZ			18:14																										
ZZZZZZ			18:19																										
ZZZZZZ			18:23																										
CCV 240-335908/132			18:28																										
CCB 240-335908/133			18:33																										
CCVL 240-335908/134	1		18:37	X	X	X	X	X																					
ZZZZZZ			18:42																										
ZZZZZZ			18:47																										
ZZZZZZ			18:51																										
ZZZZZZ			18:56																										
ZZZZZZ			19:01																										
ZZZZZZ			19:05																										
ZZZZZZ			19:10																										
ZZZZZZ			19:15																										
ZZZZZZ			19:20																										
CCV 240-335908/144			19:24																										
CCB 240-335908/145			19:29																										
ZZZZZZ			19:34																										
ZZZZZZ			19:38																										
ZZZZZZ			19:43																										
ZZZZZZ			19:48																										
ZZZZZZ			19:52																										
ZZZZZZ			19:57																										
ZZZZZZ			20:02																										
ZZZZZZ			20:07																										
ZZZZZZ			20:11																										
ZZZZZZ			20:16																										
CCV 240-335908/156			20:21																										
CCB 240-335908/157			20:25																										
ZZZZZZ			20:30																										
ZZZZZZ			20:35																										
ZZZZZZ			20:40																										

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			20:44																											
ZZZZZZ			20:49																											
ZZZZZZ			20:54																											
ZZZZZZ			20:58																											
ZZZZZZ			21:03																											
ZZZZZZ			21:08																											
ZZZZZZ			21:12																											
CCV 240-335908/168			21:17																											
CCB 240-335908/169			21:22																											
ZZZZZZ			21:26																											
ZZZZZZ			21:31																											
ZZZZZZ			21:36																											
ZZZZZZ			21:40																											
ZZZZZZ			21:45																											
ZZZZZZ			21:49																											
ZZZZZZ			21:54																											
ZZZZZZ			21:59																											
ZZZZZZ			22:04																											
ZZZZZZ			22:09																											
CCV 240-335908/180			22:13																											
CCB 240-335908/181			22:18																											
ZZZZZZ			22:23																											
ZZZZZZ			22:27																											
ZZZZZZ			22:32																											
ZZZZZZ			22:37																											
ZZZZZZ			22:42																											
ZZZZZZ			22:46																											
ZZZZZZ			22:51																											
ZZZZZZ			22:56																											
ZZZZZZ			23:01																											
ZZZZZZ			23:05																											
CCV 240-335908/192			23:10																											
CCB 240-335908/193			23:14																											
ZZZZZZ			23:19																											
ZZZZZZ			23:24																											
ZZZZZZ			23:28																											
ZZZZZZ			23:33																											
ZZZZZZ			23:37																											
ZZZZZZ			23:42																											
ZZZZZZ			23:47																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/12/2018 07:35 End Date: 07/13/2018 02:14

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			23:52																											
ZZZZZZ			23:57																											
ZZZZZZ			00:01																											
CCV 240-335908/204			00:07																											
CCB 240-335908/205			00:11																											
ZZZZZZ			00:16																											
ZZZZZZ			00:21																											
ZZZZZZ			00:25																											
ZZZZZZ			00:30																											
ZZZZZZ			00:35																											
ZZZZZZ			00:40																											
ZZZZZZ			00:45																											
ZZZZZZ			00:50																											
ZZZZZZ			00:55																											
ZZZZZZ			00:59																											
CCV 240-335908/216			01:04																											
CCB 240-335908/217			01:09																											
ZZZZZZ			01:13																											
ZZZZZZ			01:18																											
ZZZZZZ			01:23																											
ZZZZZZ			01:28																											
ZZZZZZ			01:32																											
ZZZZZZ			01:37																											
ZZZZZZ			01:42																											
ZZZZZZ			01:46																											
ZZZZZZ			01:51																											
ZZZZZZ			01:56																											
CCV 240-335908/228			02:01																											
CCB 240-335908/229			02:05																											
CCV 240-335908/230			02:10																											
CCB 240-335908/231			02:14																											

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/13/2018 10:08 End Date: 07/14/2018 01:19

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ICIS 240-336143/1	1		10:08	X	X	X	X	X																					
CALSTD 240-336143/2 IC			10:13	X	X	X	X	X																					
CALSTD 240-336143/3 IC			10:17	X	X	X	X	X																					
ICV 240-336143/4	1		10:22	X	X	X	X	X																					
ICB 240-336143/5	1		10:26	X	X	X	X	X																					
ICVL 240-336143/6	1		10:31	X	X	X	X	X																					
ZZZZZZ			10:36																										
ICSA 240-336143/8	1		10:41	X	X	X	X																						
ICSAB 240-336143/9	1		10:46	X	X	X	X																						
CCV 240-336143/10			10:50																										
CCB 240-336143/11			10:55																										
ZZZZZZ			10:59																										
ZZZZZZ			11:04																										
ZZZZZZ			11:09																										
ZZZZZZ			11:14																										
ZZZZZZ			11:19																										
ZZZZZZ			11:24																										
CCV 240-336143/18			11:28																										
CCB 240-336143/19			11:33																										
ZZZZZZ			11:38																										
ZZZZZZ			11:42																										
ZZZZZZ			11:47																										
ZZZZZZ			11:52																										
ZZZZZZ			11:57																										
ZZZZZZ			12:02																										
CCV 240-336143/26			12:06																										
CCB 240-336143/27			12:11																										
ZZZZZZ			12:15																										
ZZZZZZ			12:20																										
ZZZZZZ			12:25																										
ZZZZZZ			12:29																										
ZZZZZZ			12:34																										
ZZZZZZ			12:39																										
ZZZZZZ			12:44																										
ZZZZZZ			12:48																										
ZZZZZZ			12:53																										
ZZZZZZ			12:58																										
CCV 240-336143/38	1		13:03	X	X	X	X	X																					
CCB 240-336143/39	1		13:07	X	X	X	X	X																					
ZZZZZZ			13:13																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/13/2018 10:08 End Date: 07/14/2018 01:19

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			13:18																											
MB 240-335884/1-A	1	R	13:22	X	X	X	X	X																						
LCS 240-335884/2-A	1	R	13:27	X	X	X	X	X																						
ZZZZZZ			13:31																											
ZZZZZZ			13:36																											
ZZZZZZ			13:41																											
CCV 240-336143/47	1		13:46	X	X	X	X	X																						
CCB 240-336143/48	1		13:50	X	X	X	X	X																						
ZZZZZZ			13:55																											
CCV 240-336143/50	1		14:00	X	X	X	X	X																						
CCB 240-336143/51	1		14:05	X	X	X	X	X																						
ZZZZZZ			14:09																											
ZZZZZZ			14:14																											
240-98320-1	1	R	14:20	X	X	X	X	X																						
240-98320-1 SD	5	R	14:24	X	X	X	X	X																						
ZZZZZZ			14:29																											
240-98320-1 MS	1	R	14:34	X	X	X	X	X																						
240-98320-1 MSD	1	R	14:38	X	X	X	X	X																						
ZZZZZZ			14:43																											
ZZZZZZ			14:47																											
ZZZZZZ			14:52																											
CCV 240-336143/62	1		14:57	X	X	X	X	X																						
CCB 240-336143/63	1		15:01	X	X	X	X	X																						
ZZZZZZ			15:06																											
ZZZZZZ			15:11																											
ZZZZZZ			15:16																											
ZZZZZZ			15:21																											
ZZZZZZ			15:25																											
ZZZZZZ			15:30																											
ZZZZZZ			15:35																											
ZZZZZZ			15:39																											
ZZZZZZ			15:44																											
ZZZZZZ			15:49																											
CCV 240-336143/74			15:53																											
CCB 240-336143/75			15:58																											
CCVL 240-336143/76	1		16:03	X	X	X	X	X																						
ZZZZZZ			16:07																											
ZZZZZZ			16:12																											
ZZZZZZ			16:17																											
ZZZZZZ			16:22																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/13/2018 10:08 End Date: 07/14/2018 01:19

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			16:26																											
ZZZZZZ			16:31																											
ZZZZZZ			16:36																											
ZZZZZZ			16:40																											
ZZZZZZ			16:45																											
CCV 240-336143/86			16:49																											
CCB 240-336143/87			16:54																											
ZZZZZZ			16:58																											
ZZZZZZ			17:03																											
ZZZZZZ			17:08																											
ZZZZZZ			17:13																											
ZZZZZZ			17:17																											
ZZZZZZ			17:22																											
ZZZZZZ			17:27																											
ZZZZZZ			17:31																											
ZZZZZZ			17:36																											
ZZZZZZ			17:41																											
CCV 240-336143/98			17:46																											
CCB 240-336143/99			17:50																											
ZZZZZZ			17:55																											
ZZZZZZ			18:00																											
ZZZZZZ			18:04																											
ZZZZZZ			18:09																											
ZZZZZZ			18:14																											
ZZZZZZ			18:19																											
ZZZZZZ			18:24																											
ZZZZZZ			18:28																											
ZZZZZZ			18:33																											
ZZZZZZ			18:38																											
CCV 240-336143/110			18:43																											
CCB 240-336143/111			18:47																											
ZZZZZZ			18:52																											
ZZZZZZ			18:57																											
ZZZZZZ			19:01																											
ZZZZZZ			19:06																											
ZZZZZZ			19:10																											
ZZZZZZ			19:15																											
ZZZZZZ			19:19																											
ZZZZZZ			19:24																											
ZZZZZZ			19:28																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/13/2018 10:08 End Date: 07/14/2018 01:19

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ca	K	Mg	Na	SiO2																						
ZZZZZZ			19:33																											
CCV 240-336143/122			19:38																											
CCB 240-336143/123			19:42																											
ZZZZZZ			19:47																											
ZZZZZZ			19:52																											
ZZZZZZ			19:57																											
ZZZZZZ			20:02																											
ZZZZZZ			20:06																											
ZZZZZZ			20:11																											
ZZZZZZ			20:16																											
ZZZZZZ			20:21																											
ZZZZZZ			20:25																											
ZZZZZZ			20:30																											
CCV 240-336143/134			20:35																											
CCB 240-336143/135			20:39																											
ZZZZZZ			20:44																											
ZZZZZZ			20:49																											
ZZZZZZ			20:53																											
ZZZZZZ			20:57																											
ZZZZZZ			21:02																											
ZZZZZZ			21:07																											
ZZZZZZ			21:12																											
ZZZZZZ			21:16																											
ZZZZZZ			21:21																											
ZZZZZZ			21:26																											
CCV 240-336143/146			21:31																											
CCB 240-336143/147			21:35																											
ZZZZZZ			21:40																											
ZZZZZZ			21:45																											
ZZZZZZ			21:50																											
ZZZZZZ			21:54																											
ZZZZZZ			21:59																											
ZZZZZZ			22:04																											
ZZZZZZ			22:09																											
ZZZZZZ			22:13																											
ZZZZZZ			22:18																											
ZZZZZZ			22:23																											
CCV 240-336143/158			22:28																											
CCB 240-336143/159			22:32																											
ZZZZZZ			22:37																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I12 Analysis Method: 6010C

Start Date: 07/13/2018 10:08 End Date: 07/14/2018 01:19

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na	SiO2																					
ZZZZZZ			22:42																										
ZZZZZZ			22:47																										
ZZZZZZ			22:51																										
ZZZZZZ			22:56																										
ZZZZZZ			23:01																										
ZZZZZZ			23:05																										
ZZZZZZ			23:10																										
ZZZZZZ			23:15																										
ZZZZZZ			23:20																										
CCV 240-336143/170			23:25																										
CCB 240-336143/171			23:29																										
ZZZZZZ			23:34																										
ZZZZZZ			23:39																										
ZZZZZZ			23:44																										
ZZZZZZ			23:48																										
ZZZZZZ			23:53																										
ZZZZZZ			23:58																										
ZZZZZZ			00:03																										
ZZZZZZ			00:08																										
ZZZZZZ			00:13																										
ZZZZZZ			00:17																										
CCV 240-336143/182			00:22																										
CCB 240-336143/183			00:27																										
ZZZZZZ			00:32																										
ZZZZZZ			00:36																										
ZZZZZZ			00:41																										
ZZZZZZ			00:46																										
ZZZZZZ			00:51																										
ZZZZZZ			00:55																										
ZZZZZZ			01:00																										
ZZZZZZ			01:05																										
ZZZZZZ			01:10																										
CCV 240-336143/193			01:15																										
CCB 240-336143/194			01:19																										

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																										
				Be	Fe																									
ZZZZZZ			09:50																											
ICIS 240-336326/2			09:54	X	X																									
STD1 240-336326/3 IC	1		09:59	X	X																									
STD2 240-336326/4 IC	1		10:03	X	X																									
STD3 240-336326/5 IC	1		10:08	X	X																									
STD4 240-336326/6 IC	1		10:12	X	X																									
ICV 240-336326/7	1		10:17	X	X																									
ICB 240-336326/8	1		10:21	X	X																									
ICVL 240-336326/9	1		10:26	X	X																									
ICSA 240-336326/10	1		10:30	X	X																									
ICSAB 240-336326/11	1		10:35	X	X																									
CCV 240-336326/12			10:39																											
CCB 240-336326/13			10:44																											
ZZZZZZ			10:48																											
ZZZZZZ			10:53																											
ZZZZZZ			10:57																											
ZZZZZZ			11:02																											
ZZZZZZ			11:06																											
CCV 240-336326/19			11:10																											
CCB 240-336326/20			11:15																											
ZZZZZZ			11:19																											
ZZZZZZ			11:24																											
ZZZZZZ			11:28																											
ZZZZZZ			11:33																											
ZZZZZZ			11:37																											
CCV 240-336326/26			11:42																											
CCB 240-336326/27			11:46																											
CCB 240-336326/28			11:51																											
CCV 240-336326/29			11:55																											
CCB 240-336326/30			12:00																											
CCVL 240-336326/31			12:04																											
ZZZZZZ			12:09																											
ZZZZZZ			12:13																											
ZZZZZZ			12:17																											
ZZZZZZ			12:22																											
ZZZZZZ			12:26																											
CCVL 240-336326/37			12:31																											
ZZZZZZ			12:35																											
ZZZZZZ			12:40																											
ZZZZZZ			12:44																											
CCV 240-336326/41			12:49																											
CCB 240-336326/42			12:53																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Fe																							
ZZZZZZ			12:58																									
CCVL 240-336326/44			13:02																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:16																									
ZZZZZZ			13:20																									
ZZZZZZ			13:24																									
ZZZZZZ			13:29																									
ZZZZZZ			13:33																									
ZZZZZZ			13:38																									
CCV 240-336326/53			13:42																									
CCB 240-336326/54			13:47																									
ZZZZZZ			13:51																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:04																									
ZZZZZZ			14:09																									
ZZZZZZ			14:13																									
ZZZZZZ			14:18																									
ZZZZZZ			14:22																									
ZZZZZZ			14:27																									
ZZZZZZ			14:31																									
CCV 240-336326/65			14:36																									
CCB 240-336326/66			14:40																									
ZZZZZZ			14:45																									
ZZZZZZ			14:49																									
ZZZZZZ			14:54																									
CCV 240-336326/70			14:58																									
CCB 240-336326/71			15:02																									
CCVL 240-336326/72			15:07																									
ZZZZZZ			15:11																									
ZZZZZZ			15:16																									
ZZZZZZ			15:20																									
ZZZZZZ			15:25																									
ZZZZZZ			15:29																									
ZZZZZZ			15:34																									
ZZZZZZ			15:38																									
ZZZZZZ			15:43																									
ZZZZZZ			15:47																									
CCV 240-336326/82			15:51																									
CCB 240-336326/83			15:56																									
ZZZZZZ			16:00																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			16:05																										
CCV 240-336326/86	1		16:09	X	X																								
CCB 240-336326/87	1		16:14	X	X																								
CCVL 240-336326/88			16:18																										
240-98038-6	1	R	16:23	X																									
240-98038-6	1	D	16:27	X	X																								
ZZZZZZ			16:32																										
ZZZZZZ			16:36																										
CCV 240-336326/93	1		16:40	X	X																								
CCB 240-336326/94	1		16:45	X	X																								
CCVL 240-336326/95	1		16:49	X	X																								
ZZZZZZ			16:54																										
ZZZZZZ			16:58																										
ZZZZZZ			17:03																										
ZZZZZZ			17:07																										
ZZZZZZ			17:12																										
ZZZZZZ			17:16																										
ZZZZZZ			17:21																										
ZZZZZZ			17:25																										
ZZZZZZ			17:29																										
CCV 240-336326/105			17:34																										
CCB 240-336326/106			17:38																										
ZZZZZZ			17:43																										
ZZZZZZ			17:47																										
ZZZZZZ			17:52																										
ZZZZZZ			17:56																										
ZZZZZZ			18:01																										
ZZZZZZ			18:05																										
ZZZZZZ			18:10																										
ZZZZZZ			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:23																										
CCV 240-336326/117			18:27																										
CCB 240-336326/118			18:32																										
ZZZZZZ			18:36																										
ZZZZZZ			18:41																										
CCV 240-336326/121			18:45																										
CCB 240-336326/122			18:50																										
CCVL 240-336326/123			18:54																										
ZZZZZZ			18:59																										
ZZZZZZ			19:03																										
ZZZZZZ			19:08																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Fe																							
ZZZZZZ			19:12																									
ZZZZZZ			19:16																									
ZZZZZZ			19:21																									
ZZZZZZ			19:25																									
ZZZZZZ			19:30																									
ZZZZZZ			19:34																									
CCV 240-336326/133			19:39																									
CCB 240-336326/134			19:43																									
ZZZZZZ			19:48																									
ZZZZZZ			19:52																									
CCV 240-336326/137			19:56																									
CCB 240-336326/138			20:01																									
CCVL 240-336326/139			20:05																									
ZZZZZZ			20:10																									
ICSA 240-336326/141			20:14																									
ICSAB 240-336326/142			20:19																									
ZZZZZZ			20:23																									
ZZZZZZ			20:28																									
ZZZZZZ			20:32																									
ZZZZZZ			20:37																									
ZZZZZZ			20:41																									
ZZZZZZ			20:46																									
ZZZZZZ			20:50																									
ZZZZZZ			20:54																									
CCV 240-336326/151			20:59																									
CCB 240-336326/152			21:03																									
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:17																									
ZZZZZZ			21:21																									
ZZZZZZ			21:26																									
ZZZZZZ			21:30																									
ZZZZZZ			21:35																									
ZZZZZZ			21:39																									
CCV 240-336326/161			21:43																									
CCB 240-336326/162			21:48																									
ZZZZZZ			21:52																									
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:06																									
ZZZZZZ			22:10																									
ZZZZZZ			22:15																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/14/2018 09:50 End Date: 07/14/2018 23:23

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			22:19																										
ZZZZZZ			22:24																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
CCV 240-336326/173			22:38																										
CCB 240-336326/174			22:42																										
ZZZZZZ			22:47																										
ZZZZZZ			22:51																										
ZZZZZZ			22:55																										
ZZZZZZ			23:00																										
ZZZZZZ			23:05																										
CCV 240-336326/180			23:09																										
CCB 240-336326/181			23:14																										
CCV 240-336326/182			23:18																										
CCB 240-336326/183			23:23																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			09:21																									
ICIS 240-336575/2			09:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-336575/3 IC	1		09:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-336575/4 IC	1		09:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-336575/5 IC	1		09:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-336575/6 IC	1		09:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-336575/7	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-336575/8	1		09:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			09:57																									
ICSA 240-336575/10	1		10:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336575/11	1		10:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-336575/12			10:10																									
CCB 240-336575/13			10:15																									
ICVL 240-336575/14	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			10:24																									
ZZZZZZ			10:28																									
ZZZZZZ			10:33																									
ZZZZZZ			10:37																									
ZZZZZZ			10:42																									
ZZZZZZ			10:46																									
ZZZZZZ			10:51																									
ZZZZZZ			10:55																									
ZZZZZZ			11:00																									
CCV 240-336575/24			11:04																									
CCB 240-336575/25			11:09																									
CCVL 240-336575/26			11:13																									
ZZZZZZ			11:18																									
ZZZZZZ			11:22																									
ZZZZZZ			11:26																									
ZZZZZZ			11:31																									
ZZZZZZ			11:35																									
CCV 240-336575/32			11:40																									
CCB 240-336575/33			11:44																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:58																									
ZZZZZZ			12:02																									
ZZZZZZ			12:06																									
ZZZZZZ			12:11																									
ZZZZZZ			12:15																									
ZZZZZZ			12:20																									
ZZZZZZ			12:24																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCV 240-336575/43			12:29																									
CCB 240-336575/44			12:33																									
ZZZZZZ			12:38																									
ZZZZZZ			12:42																									
ZZZZZZ			12:47																									
ZZZZZZ			12:51																									
ZZZZZZ			12:55																									
ZZZZZZ			13:00																									
ZZZZZZ			13:04																									
ZZZZZZ			13:09																									
ZZZZZZ			13:13																									
ZZZZZZ			13:18																									
CCV 240-336575/55			13:22																									
CCB 240-336575/56			13:27																									
ZZZZZZ			13:31																									
ZZZZZZ			13:36																									
ZZZZZZ			13:40																									
ZZZZZZ			13:44																									
ZZZZZZ			13:49																									
ZZZZZZ			13:53																									
ZZZZZZ			13:58																									
ZZZZZZ			14:02																									
ZZZZZZ			14:07																									
ZZZZZZ			14:11																									
CCV 240-336575/67			14:15																									
CCB 240-336575/68			14:20																									
ZZZZZZ			14:24																									
ZZZZZZ			14:29																									
ZZZZZZ			14:33																									
ZZZZZZ			14:38																									
ZZZZZZ			14:42																									
ZZZZZZ			14:47																									
ZZZZZZ			14:52																									
CCV 240-336575/76			14:56																									
CCB 240-336575/77			15:00																									
CCVL 240-336575/78			15:05																									
ZZZZZZ			15:09																									
ZZZZZZ			15:14																									
ZZZZZZ			15:18																									
ZZZZZZ			15:23																									
ZZZZZZ			15:27																									
ZZZZZZ			15:32																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			15:36																									
ZZZZZZ			15:41																									
ZZZZZZ			15:45																									
CCV 240-336575/88			15:50																									
CCB 240-336575/89			15:54																									
ZZZZZZ			15:59																									
ZZZZZZ			16:03																									
ZZZZZZ			16:07																									
CCV 240-336575/93			16:12																									
CCB 240-336575/94			16:16																									
CCVL 240-336575/95			16:21																									
ZZZZZZ			16:25																									
CCV 240-336575/97			16:30																									
CCB 240-336575/98			16:34																									
ZZZZZZ			16:39																									
CCV 240-336575/100			16:43																									
CCB 240-336575/101			16:47																									
CCVL 240-336575/102			16:52																									
ZZZZZZ			16:56																									
ZZZZZZ			17:01																									
CCV 240-336575/105			17:05																									
CCB 240-336575/106			17:10																									
CCVL 240-336575/107			17:14																									
ZZZZZZ			17:19																									
ZZZZZZ			17:23																									
ZZZZZZ			17:28																									
ZZZZZZ			17:32																									
ZZZZZZ			17:37																									
ZZZZZZ			17:41																									
ZZZZZZ			17:45																									
ZZZZZZ			17:50																									
ZZZZZZ			17:54																									
CCV 240-336575/117			17:59																									
CCB 240-336575/118			18:03																									
ZZZZZZ			18:08																									
ZZZZZZ			18:12																									
ZZZZZZ			18:17																									
ZZZZZZ			18:21																									
CCV 240-336575/123			18:26																									
CCB 240-336575/124			18:30																									
ZZZZZZ			18:34																									
ZZZZZZ			18:39																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			18:43																									
ZZZZZZ			18:48																									
ZZZZZZ			18:52																									
ZZZZZZ			18:57																									
ZZZZZZ			19:01																									
ZZZZZZ			19:06																									
ZZZZZZ			19:10																									
ZZZZZZ			19:14																									
CCV 240-336575/135			19:19																									
CCB 240-336575/136			19:23																									
ZZZZZZ			19:28																									
ZZZZZZ			19:32																									
ZZZZZZ			19:37																									
ZZZZZZ			19:41																									
ZZZZZZ			19:46																									
ZZZZZZ			19:50																									
ZZZZZZ			19:55																									
ZZZZZZ			19:59																									
ZZZZZZ			20:03																									
ZZZZZZ			20:08																									
CCV 240-336575/147			20:12																									
CCB 240-336575/148			20:17																									
ZZZZZZ			20:21																									
ZZZZZZ			20:26																									
ICSA 240-336575/151	1		20:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336575/152	1		20:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			20:39																									
ZZZZZZ			20:44																									
ZZZZZZ			20:48																									
ZZZZZZ			20:53																									
ZZZZZZ			20:57																									
ZZZZZZ			21:01																									
ZZZZZZ			21:06																									
ZZZZZZ			21:10																									
CCV 240-336575/161			21:15																									
CCB 240-336575/162			21:19																									
CCV 240-336575/163	1		21:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336575/164	1		21:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MB 240-335239/1-A	1	R	21:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-335239/3-A	1	R	21:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98135-3	1	R	21:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			21:46																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:51																									
240-98135-3 MS	1	R	21:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98135-3 MSD	1	R	22:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98135-3	1	D	22:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98135-3 SD	5	D	22:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98135-3 MS	1	D	22:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-336575/175	1		22:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336575/176	1		22:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98135-3 MSD	1	D	22:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98135-2	1	R	22:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98135-2	1	D	22:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			22:40																									
ZZZZZZ			22:44																									
ZZZZZZ			22:49																									
ZZZZZZ			22:53																									
ZZZZZZ			22:58																									
ZZZZZZ			23:02																									
ZZZZZZ			23:07																									
CCV 240-336575/187	1		23:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336575/188	1		23:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:20																									
ZZZZZZ			23:25																									
ZZZZZZ			23:29																									
ZZZZZZ			23:34																									
ZZZZZZ			23:38																									
CCV 240-336575/194			23:43																									
CCB 240-336575/195			23:47																									
CCVL 240-336575/196	1		23:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			23:56																									
ZZZZZZ			00:01																									
ZZZZZZ			00:05																									
ZZZZZZ			00:10																									
ZZZZZZ			00:14																									
ZZZZZZ			00:19																									
ZZZZZZ			00:23																									
ZZZZZZ			00:28																									
ZZZZZZ			00:32																									
CCV 240-336575/206			00:37																									
CCB 240-336575/207			00:41																									
ZZZZZZ			00:46																									
ZZZZZZ			00:50																									
ZZZZZZ			00:55																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/16/2018 09:21 End Date: 07/17/2018 01:22

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn										
ZZZZZZ			00:59																											
ZZZZZZ			01:04																											
CCV 240-336575/213			01:08																											
CCB 240-336575/214			01:13																											
CCV 240-336575/215			01:17																											
CCB 240-336575/216			01:22																											

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			10:43																									
ICIS 240-336877/2			10:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-336877/3 IC	1		10:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-336877/4 IC	1		10:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-336877/5 IC	1		11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-336877/6 IC	1		11:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-336877/7	1		11:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-336877/8	1		11:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-336877/9	1		11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-336877/10	1		11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336877/11	1		11:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-336877/12			11:32																									
CCB 240-336877/13			11:36																									
ZZZZZZ			11:42																									
ZZZZZZ			11:47																									
ZZZZZZ			11:51																									
ZZZZZZ			11:56																									
ZZZZZZ			12:00																									
ZZZZZZ			12:05																									
ZZZZZZ			12:09																									
ZZZZZZ			12:13																									
ZZZZZZ			12:18																									
ZZZZZZ			12:22																									
CCV 240-336877/24			12:27																									
CCB 240-336877/25			12:31																									
CCVL 240-336877/26			12:36																									
ZZZZZZ			12:40																									
ZZZZZZ			12:45																									
ZZZZZZ			12:49																									
ZZZZZZ			12:54																									
ZZZZZZ			12:58																									
ZZZZZZ			13:02																									
ZZZZZZ			13:07																									
ZZZZZZ			13:11																									
ZZZZZZ			13:16																									
CCV 240-336877/36			13:20																									
CCB 240-336877/37			13:25																									
CCV 240-336877/38			13:29																									
CCB 240-336877/39			13:34																									
CCVL 240-336877/40			13:38																									
ZZZZZZ			13:42																									
ZZZZZZ			13:47																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			13:51																									
ZZZZZZ			13:56																									
ZZZZZZ			14:00																									
ZZZZZZ			14:05																									
ZZZZZZ			14:09																									
ZZZZZZ			14:14																									
ZZZZZZ			14:18																									
CCV 240-336877/50			14:23																									
CCB 240-336877/51			14:27																									
ZZZZZZ			14:31																									
ZZZZZZ			14:36																									
ZZZZZZ			14:40																									
ZZZZZZ			14:45																									
ZZZZZZ			14:49																									
ZZZZZZ			14:54																									
ZZZZZZ			14:58																									
ZZZZZZ			15:03																									
ZZZZZZ			15:07																									
ZZZZZZ			15:12																									
CCV 240-336877/62			15:16																									
CCB 240-336877/63			15:20																									
CCV 240-336877/64			15:25																									
CCB 240-336877/65			15:29																									
CCVL 240-336877/66			15:34																									
ZZZZZZ			15:38																									
ZZZZZZ			15:43																									
ZZZZZZ			15:47																									
ZZZZZZ			15:52																									
ZZZZZZ			15:56																									
ZZZZZZ			16:01																									
ZZZZZZ			16:05																									
ZZZZZZ			16:10																									
ZZZZZZ			16:14																									
CCV 240-336877/76			16:19																									
CCB 240-336877/77			16:23																									
ZZZZZZ			16:28																									
ZZZZZZ			16:32																									
ZZZZZZ			16:36																									
ZZZZZZ			16:41																									
ZZZZZZ			16:45																									
CCV 240-336877/83			16:50																									
CCB 240-336877/84			16:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			16:59																								
ZZZZZZ			17:03																								
ZZZZZZ			17:08																								
ZZZZZZ			17:12																								
ZZZZZZ			17:17																								
ZZZZZZ			17:21																								
CCV 240-336877/91	1		17:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/92	1		17:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-336877/93			17:34																								
MB 240-335239/1-A	1	R	17:39							X																		
LCS 240-335239/3-A	1	R	17:43							X																		
240-98135-3	1	R	17:48							X																		
240-98135-3 SD	5	R	17:52							X																		
ZZZZZZ			17:57																								
240-98135-3 MS	1	R	18:01							X																		
240-98135-3 MSD	1	R	18:06							X																		
240-98135-3	1	D	18:10							X																		
240-98135-3 SD	5	D	18:14							X																		
CCV 240-336877/103	1		18:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/104	1		18:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98135-3 MS	1	D	18:28							X																		
240-98135-3 MSD	1	D	18:32							X																		
240-98135-2	1	R	18:37							X																		
240-98135-2	1	D	18:41							X																		
ZZZZZZ			18:46																								
ZZZZZZ			18:50																								
ZZZZZZ			18:54																								
ZZZZZZ			18:59																								
ZZZZZZ			19:03																								
ZZZZZZ			19:08																								
CCV 240-336877/115	1		19:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/116	1		19:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			19:21																								
ZZZZZZ			19:26																								
ZZZZZZ			19:30																								
ZZZZZZ			19:35																								
ZZZZZZ			19:39																								
ZZZZZZ			19:43																								
CCV 240-336877/123	1		19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/124	1		19:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-336877/125	1		19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-335875/1-A	1	R	20:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									

FORM XIII-IN

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
LCS 240-335875/2-A	1	R	20:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2	1	R	20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-2 SD	5	R	20:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-2 MS	1	R	20:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2 MSD	1	R	20:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2	1	D	20:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-2 SD	5	D	20:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSA 240-336877/134	1		20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-336877/135	1		20:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			20:46																									
CCV 240-336877/137	1		20:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/138	1		20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-2 MS	1	D	20:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2 MSD	1	D	21:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			21:08																									
ZZZZZZ			21:12																									
ZZZZZZ			21:17																									
ZZZZZZ			21:21																									
ZZZZZZ			21:26																									
240-98352-3	1	R	21:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-3	1	D	21:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-4	1	R	21:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-336877/149	1		21:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/150	1		21:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98352-4	1	D	21:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			21:57																									
ZZZZZZ			22:01																									
ZZZZZZ			22:06																									
ZZZZZZ			22:10																									
ZZZZZZ			22:15																									
ZZZZZZ			22:19																									
ZZZZZZ			22:24																									
CCV 240-336877/159	1		22:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/160	1		22:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-336877/161			22:37																									
MB 240-335663/1-A	1	R	22:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-335663/3-A	1	R	22:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98264-2	1	R	22:50	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98264-2 SD	5	R	22:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			22:59																									
240-98264-2 MS	1	R	23:04	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
240-98264-2 MSD	1	R	23:08	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			23:13																									
ZZZZZZ			23:17																									
CCV 240-336877/171	1		23:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/172	1		23:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:31																									
240-98264-2	1	D	23:35	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98264-3	1	R	23:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98264-3	1	D	23:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:49																									
ZZZZZZ			23:53																									
ZZZZZZ			23:57																									
ZZZZZZ			00:02																									
ZZZZZZ			00:06																									
ZZZZZZ			00:11																									
CCV 240-336877/183	1		00:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-336877/184	1		00:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-336877/185			00:24																									
CCB 240-336877/186			00:29																									
CCVL 240-336877/187	1		00:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			00:38																									
ZZZZZZ			00:42																									
ZZZZZZ			00:47																									
ZZZZZZ			00:51																									
ZZZZZZ			00:56																									
ZZZZZZ			01:00																									
ZZZZZZ			01:05																									
ZZZZZZ			01:09																									
ZZZZZZ			01:13																									
CCV 240-336877/197			01:18																									
CCB 240-336877/198			01:22																									
ZZZZZZ			01:27																									
ZZZZZZ			01:31																									
ZZZZZZ			01:36																									
ZZZZZZ			01:40																									
ZZZZZZ			01:45																									
ZZZZZZ			01:49																									
ZZZZZZ			01:54																									
ZZZZZZ			01:58																									
ZZZZZZ			02:03																									
ZZZZZZ			02:07																									
CCV 240-336877/209			02:12																									
CCB 240-336877/210			02:16																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			02:20																										
ZZZZZZ			02:25																										
ZZZZZZ			02:29																										
CCV 240-336877/214			02:34																										
CCB 240-336877/215			02:38																										
ZZZZZZ			02:43																										
ZZZZZZ			02:47																										
ZZZZZZ			02:52																										
ZZZZZZ			02:56																										
ZZZZZZ			03:01																										
ZZZZZZ			03:05																										
ZZZZZZ			03:10																										
ZZZZZZ			03:14																										
ZZZZZZ			03:19																										
ZZZZZZ			03:23																										
CCV 240-336877/226			03:27																										
CCB 240-336877/227			03:32																										
ZZZZZZ			03:36																										
ZZZZZZ			03:41																										
ZZZZZZ			03:45																										
ZZZZZZ			03:50																										
ZZZZZZ			03:54																										
ZZZZZZ			03:59																										
ZZZZZZ			04:03																										
ZZZZZZ			04:08																										
ZZZZZZ			04:12																										
ZZZZZZ			04:17																										
CCV 240-336877/238			04:21																										
CCB 240-336877/239			04:25																										
ZZZZZZ			04:30																										
ZZZZZZ			04:34																										
ZZZZZZ			04:39																										
ZZZZZZ			04:43																										
ZZZZZZ			04:48																										
ZZZZZZ			04:52																										
CCV 240-336877/246			04:57																										
CCB 240-336877/247			05:01																										
CCV 240-336877/248			05:06																										
CCB 240-336877/249			05:10																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/17/2018 10:43 End Date: 07/18/2018 05:10

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/18/2018 10:44 End Date: 07/18/2018 20:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			10:44																										
ICIS 240-337019/2			10:49	X	X																								
STD1 240-337019/3 IC	1		10:53	X	X																								
STD2 240-337019/4 IC	1		10:58	X	X																								
STD3 240-337019/5 IC	1		11:02	X	X																								
STD4 240-337019/6 IC	1		11:07	X	X																								
ICV 240-337019/7	1		11:11	X	X																								
ICB 240-337019/8	1		11:15	X	X																								
ICVL 240-337019/9	1		11:20	X	X																								
ICSA 240-337019/10	1		11:24	X	X																								
ICSAB 240-337019/11	1		11:29	X	X																								
CCV 240-337019/12			11:33																										
CCB 240-337019/13			11:38																										
ZZZZZZ			11:50																										
ZZZZZZ			11:54																										
ZZZZZZ			11:58																										
ZZZZZZ			12:03																										
ZZZZZZ			12:07																										
ZZZZZZ			12:12																										
ZZZZZZ			12:16																										
ZZZZZZ			12:21																										
ZZZZZZ			12:25																										
ZZZZZZ			12:30																										
CCV 240-337019/24			12:34																										
CCB 240-337019/25			12:38																										
ZZZZZZ			12:43																										
CCV 240-337019/27			12:47																										
CCB 240-337019/28			12:52																										
CCVL 240-337019/29			12:56																										
ZZZZZZ			13:01																										
ZZZZZZ			13:05																										
ZZZZZZ			13:10																										
ZZZZZZ			13:14																										
ZZZZZZ			13:19																										
ZZZZZZ			13:23																										
ZZZZZZ			13:28																										
ZZZZZZ			13:32																										
ZZZZZZ			13:37																										
CCV 240-337019/39	1		13:41	X	X																								
CCB 240-337019/40	1		13:46	X	X																								
240-98038-7	1	R	13:50		X																								
240-98038-7	1	D	13:55		X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/18/2018 10:44 End Date: 07/18/2018 20:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
240-98038-8	1	R	13:59		X																								
240-98038-8	1	D	14:03	X	X																								
240-98038-8 SD	5	D	14:08	X	X																								
ZZZZZZ			14:12																										
240-98038-8 MS	1	D	14:17	X	X																								
240-98038-8 MSD	1	D	14:21	X	X																								
ZZZZZZ			14:26																										
CCV 240-337019/50	1		14:30	X	X																								
CCB 240-337019/51	1		14:35	X	X																								
CCVL 240-337019/52	1		14:39	X	X																								
ZZZZZZ			14:44																										
ZZZZZZ			14:48																										
ZZZZZZ			14:52																										
ZZZZZZ			14:57																										
ZZZZZZ			15:01																										
ZZZZZZ			15:06																										
ZZZZZZ			15:10																										
ZZZZZZ			15:15																										
ZZZZZZ			15:19																										
CCV 240-337019/62			15:24																										
CCB 240-337019/63			15:28																										
ZZZZZZ			15:33																										
ZZZZZZ			15:37																										
ZZZZZZ			15:41																										
CCV 240-337019/67			15:46																										
CCB 240-337019/68			15:50																										
CCVL 240-337019/69			15:55																										
CCV 240-337019/70			15:59																										
CCB 240-337019/71			16:04																										
ZZZZZZ			16:08																										
ZZZZZZ			16:13																										
ZZZZZZ			16:17																										
ZZZZZZ			16:22																										
ZZZZZZ			16:26																										
ZZZZZZ			16:30																										
ZZZZZZ			16:35																										
ZZZZZZ			16:39																										
ZZZZZZ			16:44																										
ZZZZZZ			16:48																										
CCV 240-337019/82			16:53																										
CCB 240-337019/83			16:57																										
ZZZZZZ			17:02																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/18/2018 10:44 End Date: 07/18/2018 20:31

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be	Fe																							
ZZZZZZ			17:06																									
ZZZZZZ			17:10																									
ZZZZZZ			17:15																									
ZZZZZZ			17:19																									
ZZZZZZ			17:24																									
ZZZZZZ			17:28																									
ZZZZZZ			17:33																									
ZZZZZZ			17:37																									
CCV 240-337019/93			17:42																									
CCB 240-337019/94			17:46																									
CCVL 240-337019/95			17:51																									
ZZZZZZ			17:55																									
ZZZZZZ			17:59																									
ZZZZZZ			18:04																									
ZZZZZZ			18:08																									
ZZZZZZ			18:13																									
ZZZZZZ			18:17																									
ZZZZZZ			18:22																									
ZZZZZZ			18:26																									
ZZZZZZ			18:31																									
CCV 240-337019/105			18:35																									
CCB 240-337019/106			18:40																									
ZZZZZZ			18:44																									
ZZZZZZ			18:49																									
ZZZZZZ			18:53																									
CCV 240-337019/110			18:57																									
CCB 240-337019/111			19:02																									
CCVL 240-337019/112			19:06																									
ZZZZZZ			19:11																									
ZZZZZZ			19:15																									
ZZZZZZ			19:20																									
ZZZZZZ			19:24																									
ZZZZZZ			19:29																									
ZZZZZZ			19:33																									
ZZZZZZ			19:38																									
ZZZZZZ			19:42																									
ZZZZZZ			19:46																									
CCV 240-337019/122			19:51																									
CCB 240-337019/123			19:55																									
ZZZZZZ			20:00																									
ZZZZZZ			20:04																									
ZZZZZZ			20:09																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/18/2018 10:44 End Date: 07/18/2018 20:31

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			20:13																										
CCV 240-337019/128			20:18																										
CCB 240-337019/129			20:22																										
CCV 240-337019/130			20:26																										
CCB 240-337019/131			20:31																										

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/19/2018 12:14 End Date: 07/20/2018 02:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			12:14																										
ICIS 240-337207/2			12:19	X	X																								
STD1 240-337207/3 IC	1		12:23	X	X																								
STD2 240-337207/4 IC	1		12:28	X	X																								
STD3 240-337207/5 IC	1		12:32	X	X																								
STD4 240-337207/6 IC	1		12:37	X	X																								
ICV 240-337207/7	1		12:41	X	X																								
ICB 240-337207/8	1		12:46	X	X																								
ICVL 240-337207/9	1		12:50	X	X																								
ICSA 240-337207/10	1		12:54	X	X																								
ICSAB 240-337207/11	1		12:59	X	X																								
CCV 240-337207/12			13:03																										
CCB 240-337207/13			13:08																										
ZZZZZZ			13:20																										
ZZZZZZ			13:25																										
ZZZZZZ			13:29																										
CCV 240-337207/17			13:34																										
CCB 240-337207/18			13:38																										
ZZZZZZ			13:43																										
ZZZZZZ			13:47																										
ZZZZZZ			13:52																										
ZZZZZZ			13:56																										
ZZZZZZ			14:00																										
ZZZZZZ			14:05																										
ZZZZZZ			14:09																										
ZZZZZZ			14:14																										
ZZZZZZ			14:18																										
ZZZZZZ			14:23																										
CCV 240-337207/29			14:27																										
CCB 240-337207/30			14:32																										
ZZZZZZ			14:36																										
ZZZZZZ			14:41																										
ZZZZZZ			14:45																										
CCV 240-337207/34			14:50																										
CCB 240-337207/35			14:54																										
CCVL 240-337207/36			14:59																										
ZZZZZZ			15:03																										
ZZZZZZ			15:07																										
ZZZZZZ			15:12																										
ZZZZZZ			15:16																										
ZZZZZZ			15:21																										
ZZZZZZ			15:25																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/19/2018 12:14 End Date: 07/20/2018 02:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			15:30																										
ZZZZZZ			15:34																										
ZZZZZZ			15:39																										
CCV 240-337207/46			15:43																										
CCB 240-337207/47			15:48																										
ZZZZZZ			15:52																										
CCV 240-337207/49			15:56																										
CCB 240-337207/50			16:01																										
CCVL 240-337207/51			16:05																										
ZZZZZZ			16:10																										
ZZZZZZ			16:14																										
ZZZZZZ			16:19																										
ZZZZZZ			16:23																										
ZZZZZZ			16:28																										
ZZZZZZ			16:32																										
ZZZZZZ			16:37																										
ZZZZZZ			16:41																										
ZZZZZZ			16:46																										
CCV 240-337207/61			16:50																										
CCB 240-337207/62			16:55																										
CCV 240-337207/63			16:59																										
CCB 240-337207/64			17:03																										
ZZZZZZ			17:08																										
ZZZZZZ			17:12																										
ZZZZZZ			17:17																										
ZZZZZZ			17:21																										
ZZZZZZ			17:26																										
ZZZZZZ			17:30																										
ZZZZZZ			17:35																										
ZZZZZZ			17:39																										
ZZZZZZ			17:43																										
ZZZZZZ			17:48																										
CCV 240-337207/75			17:52																										
CCB 240-337207/76			17:57																										
ZZZZZZ			18:01																										
ZZZZZZ			18:06																										
ZZZZZZ			18:10																										
ZZZZZZ			18:15																										
CCV 240-337207/81	1		18:19	X	X																								
CCB 240-337207/82	1		18:24	X	X																								
CCVL 240-337207/83			18:28																										
MB 240-335663/1-A	1	R	18:32	X																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/19/2018 12:14 End Date: 07/20/2018 02:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
LCS 240-335663/3-A	1	R	18:37	X																									
240-98264-2	1	R	18:41	X																									
240-98264-2 SD	5	R	18:46	X																									
ZZZZZZ			18:50																										
240-98264-2 MS	1	R	18:55	X																									
240-98264-2 MSD	1	R	18:59	X																									
240-98264-2	5	R	19:04		X																								
240-98264-2 SD	25	R	19:08		X																								
CCV 240-337207/93	1		19:13	X	X																								
CCB 240-337207/94	1		19:17	X	X																								
240-98264-2 MS	5	R	19:21		X																								
240-98264-2 MSD	5	R	19:26		X																								
ZZZZZZ			19:30																										
ZZZZZZ			19:35																										
ZZZZZZ			19:39																										
240-98264-2	1	D	19:44	X																									
240-98264-2	5	D	19:48		X																								
240-98264-3	1	R	19:53	X																									
240-98264-3	1	D	19:57	X																									
ZZZZZZ			20:02																										
CCV 240-337207/105	1		20:06	X	X																								
CCB 240-337207/106	1		20:11	X	X																								
ZZZZZZ			20:15																										
CCV 240-337207/108			20:19																										
CCB 240-337207/109			20:24																										
CCVL 240-337207/110	1		20:28	X	X																								
ZZZZZZ			20:33																										
ZZZZZZ			20:37																										
ZZZZZZ			20:42																										
ZZZZZZ			20:46																										
ZZZZZZ			20:51																										
ZZZZZZ			20:55																										
ZZZZZZ			21:00																										
ZZZZZZ			21:04																										
ZZZZZZ			21:08																										
CCV 240-337207/120			21:13																										
CCB 240-337207/121			21:17																										
ZZZZZZ			21:22																										
ZZZZZZ			21:26																										
ZZZZZZ			21:31																										
ZZZZZZ			21:35																										
ZZZZZZ			21:40																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/19/2018 12:14 End Date: 07/20/2018 02:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			21:44																										
ZZZZZZ			21:49																										
ZZZZZZ			21:53																										
ZZZZZZ			21:58																										
ZZZZZZ			22:02																										
CCV 240-337207/132			22:06																										
CCB 240-337207/133			22:11																										
ZZZZZZ			22:15																										
ZZZZZZ			22:20																										
ZZZZZZ			22:24																										
ZZZZZZ			22:29																										
ZZZZZZ			22:33																										
ZZZZZZ			22:38																										
ZZZZZZ			22:42																										
ZZZZZZ			22:46																										
ZZZZZZ			22:51																										
ZZZZZZ			22:55																										
CCV 240-337207/144			23:00																										
CCB 240-337207/145			23:04																										
CCV 240-337207/146			23:09																										
CCB 240-337207/147			23:13																										
ZZZZZZ			23:18																										
ZZZZZZ			23:22																										
ZZZZZZ			23:27																										
ZZZZZZ			23:31																										
ICSA 240-337207/152			23:35																										
ICSAB 240-337207/153			23:40																										
ZZZZZZ			23:44																										
ZZZZZZ			23:49																										
ZZZZZZ			23:53																										
ZZZZZZ			23:58																										
ZZZZZZ			00:02																										
ZZZZZZ			00:07																										
CCV 240-337207/160			00:11																										
CCB 240-337207/161			00:15																										
ZZZZZZ			00:20																										
ZZZZZZ			00:24																										
ZZZZZZ			00:29																										
ZZZZZZ			00:33																										
ZZZZZZ			00:38																										
ZZZZZZ			00:42																										
ZZZZZZ			00:47																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/19/2018 12:14 End Date: 07/20/2018 02:03

Lab Sample Id	D/F	Type	Time	Analytes																									
				Be	Fe																								
ZZZZZZ			00:51																										
ZZZZZZ			00:56																										
ZZZZZZ			01:00																										
CCV 240-337207/172			01:04																										
CCB 240-337207/173			01:09																										
ZZZZZZ			01:13																										
ZZZZZZ			01:18																										
CCV 240-337207/176			01:22																										
CCB 240-337207/177			01:27																										
CCVL 240-337207/178			01:31																										
ZZZZZZ			01:36																										
ZZZZZZ			01:40																										
ZZZZZZ			01:45																										
CCV 240-337207/182			01:49																										
CCB 240-337207/183			01:54																										
CCV 240-337207/184			01:58																										
CCB 240-337207/185			02:03																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/20/2018 21:09 End Date: 07/21/2018 11:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			21:09																									
ICIS 240-337442/2			21:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD1 240-337442/3 IC	1		21:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-337442/4 IC	1		21:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-337442/5 IC	1		21:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-337442/6 IC	1		21:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-337442/7	1		21:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-337442/8	1		21:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-337442/9	1		21:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-337442/10	1		21:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-337442/11	1		21:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-337442/12			21:58																									
CCB 240-337442/13			22:03																									
ZZZZZZ			22:08																									
ZZZZZZ			22:13																									
ZZZZZZ			22:17																									
ZZZZZZ			22:22																									
ZZZZZZ			22:26																									
ZZZZZZ			22:31																									
ZZZZZZ			22:35																									
ZZZZZZ			22:40																									
ZZZZZZ			22:44																									
ZZZZZZ			22:49																									
CCV 240-337442/24	1		22:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-337442/25	1		22:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:02																									
ZZZZZZ			23:06																									
ZZZZZZ			23:11																									
ZZZZZZ			23:15																									
ZZZZZZ			23:20																									
ZZZZZZ			23:24																									
ZZZZZZ			23:29																									
ZZZZZZ			23:33																									
ZZZZZZ			23:38																									
240-98352-4	1	D	23:42				X																					
CCV 240-337442/36	1		23:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-337442/37	1		23:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			23:55																									
ZZZZZZ			00:00																									
CCV 240-337442/40			00:04																									
CCB 240-337442/41			00:09																									
CCVL 240-337442/42	1		00:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/20/2018 21:09 End Date: 07/21/2018 11:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			00:18																									
ZZZZZZ			00:22																									
ZZZZZZ			00:27																									
CCV 240-337442/46	1		00:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-337442/47	1		00:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-335884/1-A	1	R	00:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-335884/3-A	1	R	00:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-98320-1	1	R	00:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98320-1 SD	5	R	00:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			00:58																									
240-98320-1 MS	1	R	01:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-98320-1 MSD	1	R	01:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-98320-1	1	D	01:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			01:16																									
ZZZZZZ			01:20																									
CCV 240-337442/58	1		01:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-337442/59	1		01:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			01:33																									
ZZZZZZ			01:38																									
CCV 240-337442/62			01:42																									
CCB 240-337442/63			01:47																									
CCVL 240-337442/64	1		01:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			01:56																									
ZZZZZZ			02:00																									
ZZZZZZ			02:05																									
ZZZZZZ			02:09																									
ZZZZZZ			02:14																									
ZZZZZZ			02:18																									
ZZZZZZ			02:23																									
ZZZZZZ			02:27																									
ZZZZZZ			02:32																									
CCV 240-337442/74			02:36																									
CCB 240-337442/75			02:40																									
ZZZZZZ			02:45																									
ZZZZZZ			02:49																									
ZZZZZZ			02:54																									
ZZZZZZ			02:58																									
ZZZZZZ			03:03																									
ZZZZZZ			03:07																									
ZZZZZZ			03:12																									
ZZZZZZ			03:16																									
ZZZZZZ			03:21																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/20/2018 21:09 End Date: 07/21/2018 11:27

Lab Sample Id	D/F	Type	Time	Analytes																										
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn									
ZZZZZZ			03:25																											
CCV 240-337442/86			03:29																											
CCB 240-337442/87			03:34																											
ZZZZZZ			03:38																											
ZZZZZZ			03:43																											
ZZZZZZ			03:47																											
ZZZZZZ			03:52																											
ZZZZZZ			03:56																											
ZZZZZZ			04:01																											
ZZZZZZ			04:05																											
ZZZZZZ			04:10																											
ZZZZZZ			04:14																											
ZZZZZZ			04:19																											
CCV 240-337442/98			04:23																											
CCB 240-337442/99			04:27																											
CCV 240-337442/100			04:32																											
CCB 240-337442/101			04:36																											
ZZZZZZ			04:41																											
ZZZZZZ			04:45																											
ZZZZZZ			04:50																											
ZZZZZZ			04:54																											
ZZZZZZ			04:59																											
ZZZZZZ			05:03																											
ZZZZZZ			05:08																											
ZZZZZZ			05:12																											
ZZZZZZ			05:17																											
ZZZZZZ			05:21																											
CCV 240-337442/112			05:26																											
CCB 240-337442/113			05:30																											
ZZZZZZ			05:34																											
ZZZZZZ			05:39																											
ZZZZZZ			05:43																											
ZZZZZZ			05:48																											
ZZZZZZ			05:52																											
ZZZZZZ			05:57																											
ZZZZZZ			06:01																											
ZZZZZZ			06:06																											
ZZZZZZ			06:10																											
ZZZZZZ			06:14																											
CCV 240-337442/124			06:19																											
CCB 240-337442/125			06:23																											
ZZZZZZ			06:28																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/20/2018 21:09 End Date: 07/21/2018 11:27

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			06:32																									
ZZZZZZ			06:37																									
ZZZZZZ			06:41																									
ZZZZZZ			06:46																									
ZZZZZZ			06:50																									
CCV 240-337442/132	1		06:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-337442/133	1		06:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
MB 240-335875/1-A	1	R	07:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
LCS 240-335875/2-A	1	R	07:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
240-98352-2	1	R	07:13				X																					
240-98352-2 SD	5	R	07:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2 MS	1	R	07:21				X																					
240-98352-2 MSD	1	R	07:26				X																					
240-98352-2	1	D	07:30				X																					
240-98352-2 SD	5	D	07:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			07:39																									
240-98352-2 MS	1	D	07:44				X																					
CCV 240-337442/144	1		07:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-337442/145	1		07:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
240-98352-2 MSD	1	D	07:57				X																					
240-98352-3	1	R	08:02				X																					
240-98352-3	1	D	08:06				X																					
240-98352-4	1	R	08:10				X																					
CCV 240-337442/150	1		08:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
CCB 240-337442/151	1		08:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-337442/152	1		08:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
ZZZZZZ			08:28																									
ZZZZZZ			08:33																									
ZZZZZZ			08:37																									
ZZZZZZ			08:42																									
ICSA 240-337442/157			08:46																									
ICSAB 240-337442/158			08:51																									
ZZZZZZ			08:55																									
ZZZZZZ			09:00																									
ZZZZZZ			09:04																									
ZZZZZZ			09:08																									
ZZZZZZ			09:13																									
CCV 240-337442/164			09:17																									
CCB 240-337442/165			09:22																									
ZZZZZZ			09:26																									
CCV 240-337442/167			09:31																									
CCB 240-337442/168			09:35																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I10 Analysis Method: 6020A

Start Date: 07/20/2018 21:09 End Date: 07/21/2018 11:27

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
CCVL 240-337442/169			09:40																										
ZZZZZZ			09:44																										
ZZZZZZ			09:49																										
ZZZZZZ			09:53																										
ZZZZZZ			09:57																										
ZZZZZZ			10:02																										
ZZZZZZ			10:06																										
ZZZZZZ			10:11																										
ZZZZZZ			10:15																										
ZZZZZZ			10:20																										
CCV 240-337442/179			10:24																										
CCB 240-337442/180			10:29																										
ZZZZZZ			10:33																										
ZZZZZZ			10:38																										
ZZZZZZ			10:42																										
CCV 240-337442/184			10:47																										
CCB 240-337442/185			10:51																										
CCVL 240-337442/186			10:56																										
ZZZZZZ			11:00																										
ZZZZZZ			11:04																										
CCV 240-337442/189			11:09																										
CCB 240-337442/190			11:13																										
CCVL 240-337442/191			11:18																										
CCV 240-337442/192			11:22																										
CCB 240-337442/193			11:27																										

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/06/2018 11:49 End Date: 07/06/2018 16:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ICIS 240-335074/1			11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-335074/2 IC	1		11:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-335074/3 IC	1		12:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-335074/4 IC	1		12:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-335074/5	1		12:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-335074/6	1		12:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-335074/7	1		12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-335074/8	1		12:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-335074/9	1		12:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-335074/10			12:47																									
CCB 240-335074/11			12:53																									
ZZZZZZ			12:59																									
ZZZZZZ			13:06																									
ZZZZZZ			13:12																									
ZZZZZZ			13:19																									
ZZZZZZ			13:25																									
ZZZZZZ			13:32																									
ZZZZZZ			13:38																									
ZZZZZZ			13:44																									
ZZZZZZ			13:51																									
ZZZZZZ			13:57																									
CCV 240-335074/22	1		14:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-335074/23	1		14:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-335074/24			14:16																									
MB 240-334865/1-A	1	R	14:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
LCS 240-334865/2-A	1	R	14:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			14:36																									
ZZZZZZ			14:42																									
ZZZZZZ			14:49																									
CCV 240-335074/30	1		14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-335074/31	1		15:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			15:39																									
CCV 240-335074/33			15:45																									
CCB 240-335074/34			15:52																									
CCVL 240-335074/35			16:02																									

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/06/2018 11:49 End Date: 07/07/2018 04:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ICIS 240-335110/1			11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-335110/2 IC	1		11:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-335110/3 IC	1		12:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-335110/4 IC	1		12:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-335110/5	1		12:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-335110/6	1		12:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-335110/7	1		12:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-335110/8	1		12:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-335110/9	1		12:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-335110/10			12:47																									
CCB 240-335110/11			12:53																									
ZZZZZZ			12:59																									
ZZZZZZ			13:06																									
ZZZZZZ			13:12																									
ZZZZZZ			13:19																									
ZZZZZZ			13:25																									
ZZZZZZ			13:32																									
ZZZZZZ			13:38																									
ZZZZZZ			13:44																									
ZZZZZZ			13:51																									
ZZZZZZ			13:57																									
CCV 240-335110/22			14:04																									
CCB 240-335110/23			14:10																									
CCVL 240-335110/24			14:16																									
ZZZZZZ			14:23																									
ZZZZZZ			14:29																									
ZZZZZZ			14:36																									
ZZZZZZ			14:42																									
ZZZZZZ			14:49																									
CCV 240-335110/30			14:55																									
CCB 240-335110/31			15:01																									
ZZZZZZ			15:39																									
CCV 240-335110/33			15:45																									
CCB 240-335110/34			15:52																									
CCVL 240-335110/35			16:02																									
ZZZZZZ			16:49																									
ZZZZZZ			16:56																									
ZZZZZZ			17:02																									
ZZZZZZ			17:09																									
ZZZZZZ			17:15																									
CCV 240-335110/41			17:21																									
CCB 240-335110/42			17:28																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/06/2018 11:49 End Date: 07/07/2018 04:21

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			17:34																										
ZZZZZZ			17:41																										
ZZZZZZ			17:47																										
ZZZZZZ			17:53																										
ZZZZZZ			18:00																										
ZZZZZZ			18:06																										
ZZZZZZ			18:13																										
ZZZZZZ			18:19																										
ZZZZZZ			18:25																										
ZZZZZZ			18:32																										
CCV 240-335110/53			18:38																										
CCB 240-335110/54			18:44																										
ZZZZZZ			18:51																										
ZZZZZZ			18:57																										
ZZZZZZ			19:04																										
ZZZZZZ			19:10																										
ZZZZZZ			19:16																										
ZZZZZZ			19:23																										
ZZZZZZ			19:29																										
ZZZZZZ			19:36																										
ZZZZZZ			19:42																										
ZZZZZZ			19:48																										
CCV 240-335110/65			19:55																										
CCB 240-335110/66			20:01																										
ZZZZZZ			20:08																										
CCV 240-335110/68			20:14																										
CCB 240-335110/69			20:20																										
CCVL 240-335110/70			20:27																										
ZZZZZZ			20:33																										
ZZZZZZ			20:40																										
ZZZZZZ			20:46																										
ZZZZZZ			20:52																										
ZZZZZZ			20:59																										
ZZZZZZ			21:05																										
ZZZZZZ			21:12																										
ZZZZZZ			21:18																										
ZZZZZZ			21:24																										
CCV 240-335110/80			21:31																										
CCB 240-335110/81			21:37																										
ZZZZZZ			21:44																										
ZZZZZZ			21:50																										
ZZZZZZ			21:56																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/06/2018 11:49 End Date: 07/07/2018 04:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			22:03																									
ZZZZZZ			22:09																									
ZZZZZZ			22:16																									
ZZZZZZ			22:22																									
ZZZZZZ			22:28																									
ZZZZZZ			22:35																									
ZZZZZZ			22:41																									
CCV 240-335110/92			22:48																									
CCB 240-335110/93			22:54																									
ZZZZZZ			23:00																									
ZZZZZZ			23:07																									
ZZZZZZ			23:13																									
ZZZZZZ			23:20																									
ZZZZZZ			23:26																									
ZZZZZZ			23:32																									
CCV 240-335110/100			23:39																									
CCB 240-335110/101			23:45																									
ZZZZZZ			23:52																									
ZZZZZZ			23:58																									
ZZZZZZ			00:05																									
ZZZZZZ			00:11																									
ZZZZZZ			00:17																									
CCV 240-335110/107			00:24																									
CCB 240-335110/108			00:30																									
ZZZZZZ			00:37																									
ZZZZZZ			00:43																									
ZZZZZZ			00:49																									
ZZZZZZ			00:56																									
ZZZZZZ			01:02																									
ZZZZZZ			01:09																									
ZZZZZZ			01:15																									
ZZZZZZ			01:21																									
ZZZZZZ			01:28																									
ZZZZZZ			01:34																									
CCV 240-335110/119	1		01:41	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X							
CCB 240-335110/120	1		01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			01:53																									
ZZZZZZ			02:00																									
ZZZZZZ			02:06																									
ZZZZZZ			02:13																									
ZZZZZZ			02:19																									
ZZZZZZ			02:26																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/06/2018 11:49 End Date: 07/07/2018 04:21

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			02:32																									
ZZZZZZ			02:38																									
ZZZZZZ			02:45																									
ZZZZZZ			02:51																									
CCV 240-335110/131	1		02:58	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X							
CCB 240-335110/132	1		03:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ZZZZZZ			03:10																									
ZZZZZZ			03:17																									
ZZZZZZ			03:23																									
ZZZZZZ			03:30																									
ZZZZZZ			03:36																									
ZZZZZZ			03:42																									
ZZZZZZ			03:49																									
ZZZZZZ			03:55																									
ZZZZZZ			04:02																									
CCV 240-335110/142	1		04:08	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X							
CCB 240-335110/143	1		04:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCVL 240-335110/144	1		04:21	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X							

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/09/2018 10:13 End Date: 07/09/2018 22:25

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ICIS 240-335427/1			10:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD2 240-335427/2 IC	1		10:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD3 240-335427/3 IC	1		10:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
STD4 240-335427/4 IC	1		10:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICV 240-335427/5	1		10:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICB 240-335427/6	1		10:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICVL 240-335427/7	1		10:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
ICSA 240-335427/8	1		10:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-335427/9	1		11:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-335427/10			11:11																								
CCB 240-335427/11			11:18																								
ZZZZZZ			11:24																								
ZZZZZZ			11:30																								
ZZZZZZ			11:37																								
ZZZZZZ			11:43																								
ZZZZZZ			11:49																								
ZZZZZZ			11:56																								
ZZZZZZ			12:02																								
ZZZZZZ			12:09																								
ZZZZZZ			12:15																								
ZZZZZZ			12:22																								
CCV 240-335427/22			12:28																								
CCB 240-335427/23			12:34																								
ZZZZZZ			12:41																								
ZZZZZZ			12:47																								
ZZZZZZ			12:54																								
ZZZZZZ			13:00																								
ZZZZZZ			13:06																								
ZZZZZZ			13:13																								
ZZZZZZ			13:19																								
ZZZZZZ			13:26																								
ZZZZZZ			13:32																								
ZZZZZZ			13:39																								
CCV 240-335427/34			13:45																								
CCB 240-335427/35			13:51																								
ZZZZZZ			13:58																								
CCV 240-335427/37			14:04																								
CCB 240-335427/38			14:11																								
ZZZZZZ			14:17																								
ZZZZZZ			14:23																								
ZZZZZZ			14:30																								
ZZZZZZ			14:36																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/09/2018 10:13 End Date: 07/09/2018 22:25

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			14:43																									
CCV 240-335427/44			14:49																									
CCB 240-335427/45			14:55																									
ZZZZZZ			15:02																									
ZZZZZZ			15:08																									
ZZZZZZ			15:15																									
ZZZZZZ			15:21																									
ZZZZZZ			15:28																									
CCV 240-335427/51			15:34																									
CCB 240-335427/52			15:40																									
ZZZZZZ			15:47																									
ZZZZZZ			15:53																									
CCV 240-335427/55			16:00																									
CCB 240-335427/56			16:06																									
ICSA 240-335427/57	1		16:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ICSAB 240-335427/58	1		16:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCV 240-335427/59			16:25																									
CCB 240-335427/60			16:32																									
ZZZZZZ			16:38																									
ZZZZZZ			16:45																									
ZZZZZZ			16:51																									
ZZZZZZ			16:57																									
ZZZZZZ			17:04																									
ZZZZZZ			17:10																									
ZZZZZZ			17:17																									
ZZZZZZ			17:23																									
ZZZZZZ			17:30																									
ZZZZZZ			17:36																									
CCV 240-335427/71			17:42																									
CCB 240-335427/72			17:49																									
ZZZZZZ			17:55																									
ZZZZZZ			18:02																									
ZZZZZZ			18:08																									
ZZZZZZ			18:14																									
ZZZZZZ			18:21																									
CCV 240-335427/78			18:27																									
CCB 240-335427/79			18:34																									
ZZZZZZ			18:40																									
ZZZZZZ			18:46																									
ZZZZZZ			18:53																									
ZZZZZZ			18:59																									
ZZZZZZ			19:06																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/09/2018 10:13 End Date: 07/09/2018 22:25

Lab Sample Id	D/F	Type	Time	Analytes																							
				Ag	As	Ba	Cd	Co	Cr	Cu	Fe	Mn	Mo	Ni	Pb	Sb	Se	Tl	V	Zn								
ZZZZZZ			19:12																								
ZZZZZZ			19:19																								
ZZZZZZ			19:25																								
ZZZZZZ			19:31																								
ZZZZZZ			19:38																								
CCV 240-335427/90	1		19:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-335427/91	1		19:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
ZZZZZZ			19:57																								
240-98038-2	1	R	20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-2	1	D	20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-3	1	R	20:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-3	1	D	20:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-4	1	R	20:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-4	1	D	20:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-5	1	R	20:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-5	1	D	20:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-6	1	R	20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCV 240-335427/102	1		21:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
CCB 240-335427/103	1		21:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
240-98038-6	1	D	21:14	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-7	1	R	21:21	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-7	1	D	21:27	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-8	1	R	21:34	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-8	1	D	21:40	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-8 SD	5	D	21:46	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X									
240-98038-8 MS	1	D	21:53	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
240-98038-8 MSD	1	D	21:59	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
240-98038-8 PDS	1	D	22:06	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
CCV 240-335427/113	1		22:12	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X								
CCB 240-335427/114	1		22:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
CCVL 240-335427/115	1		22:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

Prep Types:
D = Dissolved
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/10/2018 14:47 End Date: 07/11/2018 01:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ICIS 240-335609/1			14:47	X																								
STD2 240-335609/2 IC	1		14:53	X																								
STD3 240-335609/3 IC	1		14:58	X																								
STD4 240-335609/4 IC	1		15:04	X																								
ICV 240-335609/5	1		15:10	X																								
ICB 240-335609/6	1		15:16	X																								
ICVL 240-335609/7	1		15:21	X																								
ICSA 240-335609/8	1		15:27	X																								
ICSAB 240-335609/9	1		15:33	X																								
CCV 240-335609/10			15:39																									
CCB 240-335609/11			15:44																									
ZZZZZZ			15:50																									
ZZZZZZ			15:56																									
ZZZZZZ			16:01																									
ZZZZZZ			16:07																									
ZZZZZZ			16:13																									
ZZZZZZ			16:19																									
ZZZZZZ			16:24																									
ZZZZZZ			16:30																									
ZZZZZZ			16:36																									
ZZZZZZ			16:41																									
CCV 240-335609/22			16:47																									
CCB 240-335609/23			16:53																									
ZZZZZZ			16:58																									
ZZZZZZ			17:04																									
ZZZZZZ			17:10																									
ZZZZZZ			17:16																									
ZZZZZZ			17:21																									
ZZZZZZ			17:27																									
ZZZZZZ			17:33																									
ZZZZZZ			17:38																									
ZZZZZZ			17:44																									
ZZZZZZ			17:50																									
CCV 240-335609/34			17:56																									
CCB 240-335609/35			18:01																									
ZZZZZZ			18:07																									
ZZZZZZ			18:13																									
ZZZZZZ			18:19																									
ZZZZZZ			18:24																									
ZZZZZZ			18:30																									
ZZZZZZ			18:36																									
ZZZZZZ			18:41																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/10/2018 14:47 End Date: 07/11/2018 01:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			18:47																									
ZZZZZZ			18:53																									
ZZZZZZ			18:59																									
CCV 240-335609/46			19:04																									
CCB 240-335609/47			19:10																									
ZZZZZZ			19:16																									
ZZZZZZ			19:22																									
CCV 240-335609/50			19:27																									
CCB 240-335609/51			19:33																									
ZZZZZZ			19:39																									
ZZZZZZ			19:44																									
ZZZZZZ			19:50																									
ZZZZZZ			19:56																									
ZZZZZZ			20:02																									
ZZZZZZ			20:07																									
ZZZZZZ			20:13																									
ZZZZZZ			20:19																									
ZZZZZZ			20:24																									
ZZZZZZ			20:30																									
CCV 240-335609/62			20:36																									
CCB 240-335609/63			20:42																									
ZZZZZZ			20:47																									
ZZZZZZ			20:53																									
ZZZZZZ			20:59																									
ZZZZZZ			21:05																									
ZZZZZZ			21:10																									
ZZZZZZ			21:16																									
ZZZZZZ			21:22																									
ZZZZZZ			21:27																									
ZZZZZZ			21:33																									
ZZZZZZ			21:39																									
CCV 240-335609/74	1		21:45	X																								
CCB 240-335609/75	1		21:50	X																								
ZZZZZZ			21:56																									
240-98038-2	1	R	22:02	X																								
240-98038-2	1	D	22:08	X																								
240-98038-3	1	R	22:13	X																								
240-98038-3	1	D	22:19	X																								
240-98038-4	1	R	22:25	X																								
240-98038-4	1	D	22:31	X																								
240-98038-5	1	R	22:36	X																								
240-98038-5	1	D	22:42	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: I11 Analysis Method: 6020A

Start Date: 07/10/2018 14:47 End Date: 07/11/2018 01:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Be																								
ZZZZZZ			22:48																									
CCV 240-335609/86	1		22:53	X																								
CCB 240-335609/87	1		22:59	X																								
ZZZZZZ			23:05																									
240-98038-7	1	R	23:11	X																								
240-98038-7	1	D	23:16	X																								
240-98038-8	1	R	23:22	X																								
ZZZZZZ			23:28																									
ZZZZZZ			23:34																									
ZZZZZZ			23:39																									
ZZZZZZ			23:45																									
ZZZZZZ			23:51																									
CCV 240-335609/97	1		23:57	X																								
CCB 240-335609/98	1		00:02	X																								
CCVL 240-335609/99	1		00:08	X																								
ZZZZZZ			00:14																									
ZZZZZZ			00:19																									
ZZZZZZ			00:25																									
ZZZZZZ			00:31																									
ZZZZZZ			00:37																									
ZZZZZZ			00:42																									
ZZZZZZ			00:48																									
ZZZZZZ			00:54																									
ZZZZZZ			01:00																									
CCV 240-335609/109			01:05																									
CCB 240-335609/110			01:11																									

Prep Types:
D = Dissolved
R = Total Recoverable

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/06/2018 07:39 End Date: 07/06/2018 18:05

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
IC 240-334845/1-A			07:39	X
IC 240-334845/2-A			07:41	X
IC 240-334845/3-A			07:43	X
IC 240-334845/4-A			07:45	X
IC 240-334845/5-A			07:47	X
IC 240-334845/6-A			07:49	X
ICV 240-334845/7-A	1		07:56	X
ICB 240-334845/8-A	1		07:58	X
CRA 240-334845/9-A	1		08:00	X
CCV 240-334845/10-A			08:02	
CCB 240-334845/11-A			08:04	
CCV 240-334845/10-A			08:06	
CCB 240-334845/11-A			08:08	
ZZZZZZ			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:36	
ZZZZZZ			10:38	
CCV 240-334845/10-A	1		10:41	X
CCB 240-334845/11-A	1		10:42	X
MB 240-334866/1-A	1	T	13:08	X
LCS 240-334866/2-A	1	T	13:10	X
240-98038-2	1	T	13:12	X
240-98038-2	1	D	13:15	X
240-98038-3	1	T	13:17	X
240-98038-3	1	D	13:19	X
CCV 240-334845/10-A	1		13:20	X
CCB 240-334845/11-A	1		13:22	X
240-98038-4	1	T	13:25	X
240-98038-4	1	D	13:27	X
240-98038-5	1	T	13:29	X
240-98038-5	1	D	13:31	X
240-98038-6	1	T	13:32	X
240-98038-6	1	D	13:34	X
240-98038-7	1	T	13:36	X
240-98038-7	1	D	13:38	X
240-98038-8	1	T	13:40	X
240-98038-8	1	D	13:42	X
CCV 240-334845/10-A	1		13:44	X
CCB 240-334845/11-A	1		13:46	X
240-98038-8 MS	1	D	13:49	X
240-98038-8 MSD	1	D	13:51	X
CCV 240-334845/10-A	1		13:53	X

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/06/2018 07:39 End Date: 07/06/2018 18:05

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-334845/11-A	1		13:55	X																								
ZZZZZZ			16:40																									
ZZZZZZ			16:42																									
ZZZZZZ			16:44																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
ZZZZZZ			16:55																									
CCV 240-334845/10-A			16:57																									
CCB 240-334845/11-A			16:59																									
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
CCV 240-334845/10-A			17:20																									
CCB 240-334845/11-A			17:22																									
ZZZZZZ			17:25																									
CCV 240-334845/10-A			17:26																									
CCB 240-334845/11-A			17:30																									
ZZZZZZ			18:00																									
CCV 240-334845/10-A			18:02																									
CCB 240-334845/11-A			18:05																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/11/2018 11:21 End Date: 07/11/2018 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-335675/1-A			11:21	X																								
IC 240-335675/2-A			11:23	X																								
IC 240-335675/3-A			11:25	X																								
IC 240-335675/4-A			11:27	X																								
IC 240-335675/5-A			11:29	X																								
IC 240-335675/6-A			11:31	X																								
ICV 240-335675/7-A	1		11:36	X																								
ICB 240-335675/8-A	1		11:38	X																								
CRA 240-335675/9-A	1		11:40	X																								
CCV 240-335675/10-A			11:42																									
CCB 240-335675/11-A			11:44																									
ZZZZZZ			11:46																									
ZZZZZZ			11:48																									
ZZZZZZ			11:50																									
ZZZZZZ			11:53																									
ZZZZZZ			11:55																									
ZZZZZZ			11:56																									
ZZZZZZ			11:58																									
CCV 240-335675/10-A			12:01																									
CCB 240-335675/11-A			12:03																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
CCV 240-335675/10-A			13:06																									
CCB 240-335675/11-A			13:08																									
ZZZZZZ			13:11																									
ZZZZZZ			13:13																									
ZZZZZZ			13:15																									
ZZZZZZ			13:17																									
ZZZZZZ			13:19																									
ZZZZZZ			13:21																									
ZZZZZZ			13:22																									
ZZZZZZ			13:24																									
ZZZZZZ			13:26																									
ZZZZZZ			13:28																									
CCV 240-335675/10-A			13:30																									
CCB 240-335675/11-A			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:43																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/11/2018 11:21 End Date: 07/11/2018 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			13:45																									
ZZZZZZ			13:47																									
ZZZZZZ			13:49																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
CCV 240-335675/10-A			13:55																									
CCB 240-335675/11-A			13:57																									
ZZZZZZ			13:59																									
ZZZZZZ			14:01																									
ZZZZZZ			14:03																									
ZZZZZZ			14:05																									
ZZZZZZ			14:07																									
ZZZZZZ			14:09																									
ZZZZZZ			14:11																									
ZZZZZZ			14:13																									
ZZZZZZ			14:15																									
ZZZZZZ			14:17																									
CCV 240-335675/10-A			14:20																									
CCB 240-335675/11-A			14:22																									
CCV 240-335675/10-A			14:24																									
CCB 240-335675/11-A			14:26																									
ZZZZZZ			15:34																									
ZZZZZZ			15:36																									
ZZZZZZ			15:38																									
ZZZZZZ			15:40																									
ZZZZZZ			15:42																									
ZZZZZZ			15:44																									
ZZZZZZ			15:47																									
ZZZZZZ			15:49																									
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
ZZZZZZ			15:56																									
ZZZZZZ			15:58																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:15																									
CCV 240-335675/10-A			16:17																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/11/2018 11:21 End Date: 07/11/2018 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-335675/11-A			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:29																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:39																									
CCV 240-335675/10-A			16:41																									
CCB 240-335675/11-A			16:43																									
ZZZZZZ			16:46																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:52																									
ZZZZZZ			16:54																									
ZZZZZZ			16:57																									
ZZZZZZ			16:59																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:05																									
CCV 240-335675/10-A			17:07																									
CCB 240-335675/11-A			17:09																									
ZZZZZZ			17:12																									
ZZZZZZ			17:14																									
ZZZZZZ			17:16																									
ZZZZZZ			17:18																									
ZZZZZZ			17:20																									
ZZZZZZ			17:22																									
ZZZZZZ			17:24																									
ZZZZZZ			17:26																									
ZZZZZZ			17:28																									
ZZZZZZ			17:30																									
CCV 240-335675/10-A			17:32																									
CCB 240-335675/11-A			17:34																									
ZZZZZZ			17:36																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:44																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/11/2018 11:21 End Date: 07/11/2018 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:46																									
ZZZZZZ			17:47																									
ZZZZZZ			17:52																									
ZZZZZZ			17:54																									
ZZZZZZ			17:56																									
CCV 240-335675/10-A			17:58																									
CCB 240-335675/11-A			18:00																									
ZZZZZZ			18:02																									
ZZZZZZ			18:04																									
ZZZZZZ			18:06																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:12																									
ZZZZZZ			18:14																									
ZZZZZZ			18:16																									
ZZZZZZ			18:18																									
ZZZZZZ			18:20																									
CCV 240-335675/10-A			18:22																									
CCB 240-335675/11-A			18:25																									
ZZZZZZ			18:27																									
ZZZZZZ			18:29																									
ZZZZZZ			18:31																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
ZZZZZZ			18:38																									
ZZZZZZ			18:40																									
ZZZZZZ			18:42																									
ZZZZZZ			18:44																									
ZZZZZZ			18:46																									
CCV 240-335675/10-A	1		18:48	X																								
CCB 240-335675/11-A	1		18:50	X																								
ZZZZZZ			18:53																									
MB 240-335241/1-A	1	T	18:55	X																								
LCS 240-335241/2-A	1	T	18:57	X																								
ZZZZZZ			18:59																									
240-98135-3	1	T	19:02	X																								
240-98135-3 MS	1	T	19:04	X																								
ZZZZZZ			19:06																									
ZZZZZZ			19:08																									
240-98135-3 MSD	1	T	19:10	X																								
240-98135-3	1	D	19:12	X																								
CCV 240-335675/10-A	1		19:14	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/11/2018 11:21 End Date: 07/11/2018 20:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-335675/11-A	1		19:16	X																								
240-98135-3 MS	1	D	19:18	X																								
240-98135-3 MSD	1	D	19:20	X																								
240-98135-2	1	T	19:22	X																								
240-98135-2	1	D	19:24	X																								
ZZZZZZ			19:26																									
ZZZZZZ			19:28																									
ZZZZZZ			19:30																									
ZZZZZZ			19:32																									
ZZZZZZ			19:34																									
ZZZZZZ			19:36																									
CCV 240-335675/10-A	1		19:40	X																								
CCB 240-335675/11-A	1		19:42	X																								
ZZZZZZ			19:44																									
ZZZZZZ			19:46																									
ZZZZZZ			19:48																									
ZZZZZZ			19:50																									
ZZZZZZ			19:52																									
ZZZZZZ			19:54																									
ZZZZZZ			19:56																									
ZZZZZZ			19:58																									
ZZZZZZ			20:00																									
ZZZZZZ			20:02																									
CCV 240-335675/10-A			20:05																									
CCB 240-335675/11-A			20:07																									
ZZZZZZ			20:09																									
ZZZZZZ			20:11																									
ZZZZZZ			20:13																									
ZZZZZZ			20:15																									
ZZZZZZ			20:17																									
ZZZZZZ			20:20																									
CCV 240-335675/10-A			20:23																									
CCB 240-335675/11-A			20:26																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/12/2018 08:32 End Date: 07/12/2018 18:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-335675/1-A			08:32	X																								
IC 240-335675/2-A			08:34	X																								
IC 240-335675/3-A			08:36	X																								
IC 240-335675/4-A			08:38	X																								
IC 240-335675/5-A			08:40	X																								
IC 240-335675/6-A			08:42	X																								
ICV 240-335675/7-A	1		09:05	X																								
ICB 240-335675/8-A	1		09:07	X																								
CRA 240-335675/9-A	1		09:09	X																								
CCV 240-335675/10-A			09:11																									
CCB 240-335675/11-A			09:13																									
ZZZZZZ			09:15																									
ZZZZZZ			09:17																									
ZZZZZZ			09:19																									
ZZZZZZ			09:22																									
ZZZZZZ			09:24																									
ZZZZZZ			09:26																									
ZZZZZZ			09:28																									
ZZZZZZ			09:30																									
ZZZZZZ			09:32																									
ZZZZZZ			09:34																									
CCV 240-335675/10-A			09:36																									
CCB 240-335675/11-A			09:38																									
ZZZZZZ			09:40																									
ZZZZZZ			09:42																									
ZZZZZZ			09:44																									
ZZZZZZ			09:46																									
ZZZZZZ			09:48																									
ZZZZZZ			09:50																									
ZZZZZZ			09:52																									
ZZZZZZ			09:54																									
ZZZZZZ			09:56																									
ZZZZZZ			09:58																									
CCV 240-335675/10-A			10:00																									
CCB 240-335675/11-A			10:03																									
ZZZZZZ			10:05																									
ZZZZZZ			10:07																									
ZZZZZZ			10:09																									
ZZZZZZ			10:11																									
ZZZZZZ			10:13																									
ZZZZZZ			10:15																									
ZZZZZZ			10:17																									

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/12/2018 08:32 End Date: 07/12/2018 18:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			10:19																									
ZZZZZZ			10:20																									
ZZZZZZ			10:22																									
CCV 240-335675/10-A			10:24																									
CCB 240-335675/11-A			10:26																									
ZZZZZZ			10:29																									
ZZZZZZ			10:31																									
ZZZZZZ			10:32																									
ZZZZZZ			10:34																									
ZZZZZZ			10:36																									
ZZZZZZ			10:38																									
ZZZZZZ			10:40																									
ZZZZZZ			10:42																									
ZZZZZZ			10:45																									
ZZZZZZ			10:47																									
CCV 240-335675/10-A			10:49																									
CCB 240-335675/11-A			10:51																									
ZZZZZZ			10:54																									
ZZZZZZ			10:56																									
ZZZZZZ			10:58																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
ZZZZZZ			11:05																									
ZZZZZZ			11:07																									
ZZZZZZ			11:09																									
ZZZZZZ			11:12																									
CCV 240-335675/10-A			11:14																									
CCB 240-335675/11-A			11:16																									
ZZZZZZ			11:18																									
ZZZZZZ			11:20																									
CCV 240-335675/10-A			11:22																									
CCB 240-335675/11-A			11:24																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
CCV 240-335675/10-A			13:54																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/12/2018 08:32 End Date: 07/12/2018 18:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
CCB 240-335675/11-A			13:56																									
ZZZZZZ			13:59																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
CCV 240-335675/10-A			14:18																									
CCB 240-335675/11-A			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
ZZZZZZ			14:28																									
ZZZZZZ			14:30																									
ZZZZZZ			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:36																									
ZZZZZZ			14:39																									
ZZZZZZ			14:41																									
CCV 240-335675/10-A			14:43																									
CCB 240-335675/11-A			14:45																									
ZZZZZZ			14:47																									
ZZZZZZ			14:49																									
ZZZZZZ			14:51																									
ZZZZZZ			14:53																									
ZZZZZZ			14:55																									
ZZZZZZ			14:57																									
ZZZZZZ			15:00																									
ZZZZZZ			15:02																									
ZZZZZZ			15:04																									
CCV 240-335675/10-A			15:07																									
CCB 240-335675/11-A			15:09																									
ZZZZZZ			15:29																									
CCV 240-335675/10-A			15:31																									
CCB 240-335675/11-A			15:33																									
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
ZZZZZZ			15:40																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/12/2018 08:32 End Date: 07/12/2018 18:17

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			15:42	
ZZZZZZ			15:44	
ZZZZZZ			15:46	
ZZZZZZ			15:48	
ZZZZZZ			15:50	
ZZZZZZ			15:52	
ZZZZZZ			15:54	
CCV 240-335675/10-A			15:55	
CCB 240-335675/11-A			15:57	
ZZZZZZ			16:00	
ZZZZZZ			16:02	
ZZZZZZ			16:04	
ZZZZZZ			16:06	
ZZZZZZ			16:08	
ZZZZZZ			16:09	
ZZZZZZ			16:11	
ZZZZZZ			16:13	
ZZZZZZ			16:15	
ZZZZZZ			16:17	
CCV 240-335675/10-A	1		16:20	X
CCB 240-335675/11-A	1		16:22	X
ZZZZZZ			16:24	
ZZZZZZ			16:26	
ZZZZZZ			16:29	
MB 240-335668/1-A	1	T	16:31	X
LCS 240-335668/2-A	1	T	16:34	X
240-98264-2	1	T	16:36	X
240-98264-2 MS	1	T	16:38	X
240-98264-2 MSD	1	T	16:40	X
ZZZZZZ			16:43	
ZZZZZZ			16:45	
CCV 240-335675/10-A	1		16:47	X
CCB 240-335675/11-A	1		16:49	X
ZZZZZZ			16:51	
240-98264-2	1	D	16:53	X
240-98264-3	1	T	16:55	X
240-98264-3	1	D	16:57	X
ZZZZZZ			16:59	
ZZZZZZ			17:01	
ZZZZZZ			17:03	
ZZZZZZ			17:05	
ZZZZZZ			17:07	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/12/2018 08:32 End Date: 07/12/2018 18:17

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			17:09																									
CCV 240-335675/10-A	1		17:11	X																								
CCB 240-335675/11-A	1		17:13	X																								
ZZZZZZ			17:15																									
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
ZZZZZZ			17:21																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:27																									
ZZZZZZ			17:29																									
ZZZZZZ			17:31																									
ZZZZZZ			17:33																									
CCV 240-335675/10-A			17:35																									
CCB 240-335675/11-A			17:37																									
ZZZZZZ			17:40																									
ZZZZZZ			17:41																									
ZZZZZZ			17:43																									
ZZZZZZ			17:45																									
ZZZZZZ			17:47																									
ZZZZZZ			17:49																									
ZZZZZZ			17:51																									
ZZZZZZ			17:53																									
ZZZZZZ			17:55																									
ZZZZZZ			17:57																									
CCV 240-335675/10-A			17:59																									
CCB 240-335675/11-A			18:01																									
ZZZZZZ			18:03																									
ZZZZZZ			18:05																									
ZZZZZZ			18:07																									
ZZZZZZ			18:09																									
ZZZZZZ			18:11																									
ZZZZZZ			18:13																									
CCV 240-335675/10-A			18:15																									
CCB 240-335675/11-A			18:17																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/13/2018 12:53 End Date: 07/13/2018 17:58

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
IC 240-336192/1-A			12:53	X																								
IC 240-336192/2-A			12:55	X																								
IC 240-336192/3-A			12:57	X																								
IC 240-336192/4-A			12:59	X																								
IC 240-336192/5-A			13:01	X																								
IC 240-336192/6-A			13:03	X																								
ICV 240-336192/7-A	1		13:25	X																								
ICB 240-336192/8-A	1		13:27	X																								
CRA 240-336192/9-A	1		13:29	X																								
CCV 240-336192/10-A			13:31																									
CCB 240-336192/11-A			13:33																									
CCV 240-336192/10-A			13:36																									
CCB 240-336192/11-A			13:37																									
ZZZZZZ			13:43																									
ZZZZZZ			13:45																									
ZZZZZZ			13:47																									
ZZZZZZ			13:48																									
ZZZZZZ			13:51																									
ZZZZZZ			13:53																									
ZZZZZZ			13:55																									
ZZZZZZ			13:58																									
ZZZZZZ			14:00																									
ZZZZZZ			14:02																									
CCV 240-336192/10-A			14:03																									
CCB 240-336192/11-A			14:05																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
CCV 240-336192/10-A			14:14																									
CCB 240-336192/11-A			14:16																									
ZZZZZZ			15:06																									
ZZZZZZ			15:08																									
ZZZZZZ			15:10																									
ZZZZZZ			15:13																									
ZZZZZZ			15:15																									
ZZZZZZ			15:17																									
ZZZZZZ			15:19																									
CCV 240-336192/10-A			15:21																									
CCB 240-336192/11-A			15:23																									
ZZZZZZ			15:25																									
ZZZZZZ			15:27																									
ZZZZZZ			15:29																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/13/2018 12:53 End Date: 07/13/2018 17:58

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			15:31																									
ZZZZZZ			15:33																									
ZZZZZZ			15:35																									
ZZZZZZ			15:37																									
ZZZZZZ			15:39																									
ZZZZZZ			15:41																									
ZZZZZZ			15:43																									
CCV 240-336192/10-A			15:45																									
CCB 240-336192/11-A			15:47																									
ZZZZZZ			15:49																									
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
ZZZZZZ			15:55																									
ZZZZZZ			15:57																									
ZZZZZZ			15:59																									
ZZZZZZ			16:01																									
ZZZZZZ			16:03																									
ZZZZZZ			16:05																									
ZZZZZZ			16:07																									
CCV 240-336192/10-A	1		16:09	X																								
CCB 240-336192/11-A	1		16:11	X																								
ZZZZZZ			16:13																									
ZZZZZZ			16:15																									
ZZZZZZ			16:18																									
ZZZZZZ			16:20																									
ZZZZZZ			16:22																									
MB 240-335883/1-A	1	T	16:24	X																								
LCS 240-335883/2-A	1	T	16:26	X																								
240-98352-2	1	T	16:28	X																								
240-98352-2 MS	1	T	16:31	X																								
240-98352-2 MSD	1	T	16:32	X																								
CCV 240-336192/10-A	1		16:35	X																								
CCB 240-336192/11-A	1		16:37	X																								
240-98352-2	1	D	16:39	X																								
240-98352-2 MS	1	D	16:41	X																								
240-98352-2 MSD	1	D	16:43	X																								
ZZZZZZ			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
240-98352-3	1	T	16:55	X																								

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13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: H3 Analysis Method: 7470A

Start Date: 07/13/2018 12:53 End Date: 07/13/2018 17:58

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
240-98352-3	1	D	16:57	X																								
CCV 240-336192/10-A	1		16:59	X																								
CCB 240-336192/11-A	1		17:01	X																								
240-98352-4	1	T	17:03	X																								
240-98352-4	1	D	17:05	X																								
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
MB 240-335886/1-A	1	T	17:15	X																								
LCS 240-335886/2-A	1	T	17:17	X																								
240-98320-1	1	T	17:19	X																								
240-98320-1 MS	1	T	17:21	X																								
CCV 240-336192/10-A	1		17:23	X																								
CCB 240-336192/11-A	1		17:26	X																								
240-98320-1 MSD	1	T	17:28	X																								
240-98320-1	1	D	17:30	X																								
ZZZZZZ			17:32																									
ZZZZZZ			17:34																									
ZZZZZZ			17:36																									
ZZZZZZ			17:38																									
ZZZZZZ			17:40																									
ZZZZZZ			17:42																									
ZZZZZZ			17:44																									
ZZZZZZ			17:46																									
CCV 240-336192/10-A	1		17:48	X																								
CCB 240-336192/11-A	1		17:50	X																								
ZZZZZZ			17:52																									
ZZZZZZ			17:54																									
CCV 240-336192/10-A			17:56																									
CCB 240-336192/11-A			17:58																									

Prep Types:
D = Dissolved
T = Total/NA

FORM XIII-IN

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP Instrument ID: I12 Start Date: 07/12/2018 End Date: 07/12/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-335908/1	07:35										
ICV 240-335908/4	07:50	91		99		97		99			
ICB 240-335908/5	07:54	100		100		100		99			
ICVL 240-335908/6	07:59	98		99		99		99			
ICSA 240-335908/8	08:08	75		90		86		97			
ICSAB 240-335908/9	08:13	74		89		86		96			
CCV 240-335908/36	10:55	86		96		95		97			
CCB 240-335908/37	10:59	100		100		100		98			
MB 240-335663/1-A	11:04	101		102		102		101			
LCS 240-335663/2-A	11:09	89		97		96		99			
240-98264-2	11:13	78		90		89		98			
240-98264-2 SD	11:18	88		96		95		98			
240-98264-2 MS	11:27	76		89		88		97			
240-98264-2 MSD	11:32	76		89		88		97			
CCV 240-335908/48	11:51	86		96		95		97			
CCB 240-335908/49	11:56	100		100		100		97			
CCVL 240-335908/134	18:37	98		100		100		95			

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP Instrument ID: I12 Start Date: 07/13/2018 End Date: 07/13/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 371.030	Q	Element	Q
ICIS 240-336143/1	10:08										
ICV 240-336143/4	10:22	91		98		97		100			
ICB 240-336143/5	10:26	100		100		100		100			
ICVL 240-336143/6	10:31	98		99		99		101			
ICSA 240-336143/8	10:41	75		89		86		98			
ICSAB 240-336143/9	10:46	74		89		86		98			
CCV 240-336143/38	13:03	86		96		95		99			
CCB 240-336143/39	13:07	100		100		100		100			
MB 240-335884/1-A	13:22	101		101		101		102			
LCS 240-335884/2-A	13:27	89		96		96		101			
CCV 240-336143/47	13:46	87		97		95		99			
CCB 240-336143/48	13:50	100		100		100		99			
CCV 240-336143/50	14:00	86		96		95		98			
CCB 240-336143/51	14:05	101		101		101		99			
240-98320-1	14:20	80		92		91		98			
240-98320-1 SD	14:24	90		97		96		99			
240-98320-1 MS	14:34	78		90		89		98			
240-98320-1 MSD	14:38	78		90		90		98			
CCV 240-336143/62	14:57	87		96		95		98			
CCB 240-336143/63	15:01	100		100		100		99			
CCVL 240-336143/76	16:03	98		100		99		98			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/14/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336326/3 IC	09:59	95		101		99		100		103	
STD2 240-336326/4 IC	10:03	98		100		97		94		99	
STD3 240-336326/5 IC	10:08	97		103		97		93		96	
STD4 240-336326/6 IC	10:12	99		104		101		103		106	
ICV 240-336326/7	10:17	98		102		100		97		103	
ICB 240-336326/8	10:21	99		103		101		103		107	
ICVL 240-336326/9	10:26	99		104		100		101		108	
ICSA 240-336326/10	10:30	91		97		96		93		96	
ICSAB 240-336326/11	10:35	91		98		97		95		96	
CCV 240-336326/86	16:09	92		95		93		91		95	
CCB 240-336326/87	16:14	99		99		96		97		101	
240-98038-6	16:23	86		90		90		86		89	
240-98038-6	16:27	84		88		90		88		92	
CCV 240-336326/93	16:40	89		98		94		92		99	
CCB 240-336326/94	16:45	95		98		96		99		105	
CCVL 240-336326/95	16:49	95		97		96		98		103	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/14/2018 End Date: 07/14/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336326/3 IC	09:59	105		104		101					
STD2 240-336326/4 IC	10:03	101		100		96					
STD3 240-336326/5 IC	10:08	100		102		92					
STD4 240-336326/6 IC	10:12	107		106		101					
ICV 240-336326/7	10:17	104		102		97					
ICB 240-336326/8	10:21	106		102		103					
ICVL 240-336326/9	10:26	108		104		102					
ICSA 240-336326/10	10:30	100		99		92					
ICSAB 240-336326/11	10:35	102		101		93					
CCV 240-336326/86	16:09	96		96		93					
CCB 240-336326/87	16:14	102		98		99					
240-98038-6	16:23	101		99		90					
240-98038-6	16:27	104		101		90					
CCV 240-336326/93	16:40	102		103		93					
CCB 240-336326/94	16:45	104		104		99					
CCVL 240-336326/95	16:49	103		103		98					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/16/2018 End Date: 07/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336575/3 IC	09:30	97		97		97		95		98	
STD2 240-336575/4 IC	09:35	93		99		98		94		95	
STD3 240-336575/5 IC	09:39	93		97		100		92		93	
STD4 240-336575/6 IC	09:44	95		102		100		101		102	
ICV 240-336575/7	09:48	94		102		101		96		98	
ICB 240-336575/8	09:53	102		104		105		102		100	
ICSA 240-336575/10	10:02	92		97		98		90		93	
ICSAB 240-336575/11	10:06	90		99		99		93		93	
ICVL 240-336575/14	10:20	100		105		104		103		104	
ICSA 240-336575/151	20:30	67		65		67		74		74	
ICSAB 240-336575/152	20:35	65		67		68		75		75	
CCV 240-336575/163	21:24	60		58		61		69		70	
CCB 240-336575/164	21:28	64		60		62		74		72	
MB 240-335239/1-A	21:33	64		60		61		72		71	
LCS 240-335239/3-A	21:37	62		57		61		69		66	
240-98135-3	21:42	64		61		63		70		70	
240-98135-3 MS	21:55	61		57		61		67		65	
240-98135-3 MSD	22:00	59		56		60		67		64	
240-98135-3	22:04	63		57		61		69		69	
240-98135-3 SD	22:08	65		62		65		75		73	
240-98135-3 MS	22:13	61		58		62		68		66	
CCV 240-336575/175	22:17	65		61		64		73		71	
CCB 240-336575/176	22:22	67		61		62		72		71	
240-98135-3 MSD	22:26	61		60		61		69		69	
240-98135-2	22:31	62		58		62		69		69	
240-98135-2	22:35	66		59		61		69		69	
CCV 240-336575/187	23:11	67		64		67		73		73	
CCB 240-336575/188	23:15	72		66		69		78		76	
CCVL 240-336575/196	23:52	74		66		68		78		75	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/16/2018 End Date: 07/16/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336575/3 IC	09:30	99		102		97					
STD2 240-336575/4 IC	09:35	98		101		94					
STD3 240-336575/5 IC	09:39	97		98		90					
STD4 240-336575/6 IC	09:44	102		102		98					
ICV 240-336575/7	09:48	99		101		93					
ICB 240-336575/8	09:53	102		101		97					
ICSA 240-336575/10	10:02	95		97		90					
ICSAB 240-336575/11	10:06	97		99		91					
ICVL 240-336575/14	10:20	103		103		98					
ICSA 240-336575/151	20:30	82		85		77					
ICSAB 240-336575/152	20:35	81		85		77					
CCV 240-336575/163	21:24	78		80		75					
CCB 240-336575/164	21:28	80		82		80					
MB 240-335239/1-A	21:33	77		80		79					
LCS 240-335239/3-A	21:37	77		79		76					
240-98135-3	21:42	77		81		77					
240-98135-3 MS	21:55	73		76		73					
240-98135-3 MSD	22:00	73		76		73					
240-98135-3	22:04	74		77		76					
240-98135-3 SD	22:08	79		81		79					
240-98135-3 MS	22:13	75		78		74					
CCV 240-336575/175	22:17	79		81		76					
CCB 240-336575/176	22:22	77		80		77					
240-98135-3 MSD	22:26	78		81		75					
240-98135-2	22:31	76		78		76					
240-98135-2	22:35	77		80		76					
CCV 240-336575/187	23:11	81		84		77					
CCB 240-336575/188	23:15	83		85		82					
CCVL 240-336575/196	23:52	84		87		82					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/17/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-336877/3 IC	10:52	96		100		101		100		100	
STD2 240-336877/4 IC	10:56	90		99		96		95		96	
STD3 240-336877/5 IC	11:00	92		95		94		92		94	
STD4 240-336877/6 IC	11:05	92		100		98		101		100	
ICV 240-336877/7	11:09	94		98		96		94		96	
ICB 240-336877/8	11:14	95		100		98		100		100	
ICVL 240-336877/9	11:18	95		100		97		100		101	
ICSA 240-336877/10	11:23	87		94		93		89		93	
ICSAB 240-336877/11	11:27	86		94		94		90		94	
CCV 240-336877/91	17:25	87		96		98		100		99	
CCB 240-336877/92	17:30	91		97		100		105		104	
MB 240-335239/1-A	17:39	87		90		94		100		98	
LCS 240-335239/3-A	17:43	80		88		92		94		92	
240-98135-3	17:48	79		87		90		95		95	
240-98135-3 SD	17:52	87		90		96		101		98	
240-98135-3 MS	18:01	79		85		90		93		93	
240-98135-3 MSD	18:06	78		87		90		94		92	
240-98135-3	18:10	79		86		90		95		94	
240-98135-3 SD	18:14	84		89		94		100		99	
CCV 240-336877/103	18:19	86		91		93		95		95	
CCB 240-336877/104	18:23	87		94		95		101		100	
240-98135-3 MS	18:28	77		86		89		92		92	
240-98135-3 MSD	18:32	76		84		87		91		90	
240-98135-2	18:37	79		82		89		92		90	
240-98135-2	18:41	81		87		91		95		93	
CCV 240-336877/115	19:12	86		93		94		99		98	
CCB 240-336877/116	19:17	89		91		94		103		100	
CCV 240-336877/123	19:48	86		93		96		97		96	
CCB 240-336877/124	19:52	92		94		98		102		99	
CCVL 240-336877/125	19:57	90		93		94		102		98	
MB 240-335875/1-A	20:01	84		87		91		97		95	
LCS 240-335875/2-A	20:06	79		84		88		94		92	
240-98352-2	20:10	78		85		89		87		87	
240-98352-2 SD	20:15	85		91		95		97		97	
240-98352-2 MS	20:19	76		84		90		87		87	
240-98352-2 MSD	20:24	76		85		89		87		86	
240-98352-2	20:28	77		85		89		88		88	
240-98352-2 SD	20:32	85		89		93		96		95	
ICSA 240-336877/134	20:37	80		88		90		89		92	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/17/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
ICSAB 240-336877/135	20:41	78		86		89		89		92	
CCV 240-336877/137	20:50	80		87		90		95		95	
CCB 240-336877/138	20:55	84		88		92		102		100	
240-98352-2 MS	20:59	69		78		82		82		82	
240-98352-2 MSD	21:03	70		78		83		85		86	
240-98352-3	21:30	72		79		84		87		86	
240-98352-3	21:35	72		77		83		85		86	
240-98352-4	21:39	78		80		86		92		91	
CCV 240-336877/149	21:44	82		85		90		94		93	
CCB 240-336877/150	21:48	85		85		89		99		98	
240-98352-4	21:52	79		80		85		92		90	
CCV 240-336877/159	22:28	81		83		89		92		89	
CCB 240-336877/160	22:33	82		85		88		98		97	
MB 240-335663/1-A	22:41	79		82		87		96		93	
LCS 240-335663/3-A	22:46	76		79		84		90		88	
240-98264-2	22:50	72		79		80		78		79	
240-98264-2 SD	22:55	77		85		86		92		92	
240-98264-2 MS	23:04	70		79		82		81		82	
240-98264-2 MSD	23:08	68		77		81		80		82	
CCV 240-336877/171	23:22	77		81		86		93		92	
CCB 240-336877/172	23:26	79		83		88		100		98	
240-98264-2	23:35	69		76		80		78		80	
240-98264-3	23:40	74		79		82		95		94	
240-98264-3	23:44	72		77		83		94		93	
CCV 240-336877/183	00:15	78		81		85		92		91	
CCB 240-336877/184	00:20	77		82		85		97		96	
CCVL 240-336877/187	00:33	80		82		87		96		94	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/17/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-336877/3 IC	10:52	100		101		99					
STD2 240-336877/4 IC	10:56	97		101		94					
STD3 240-336877/5 IC	11:00	96		99		92					
STD4 240-336877/6 IC	11:05	99		104		100					
ICV 240-336877/7	11:09	99		102		95					
ICB 240-336877/8	11:14	100		104		97					
ICVL 240-336877/9	11:18	102		104		100					
ICSA 240-336877/10	11:23	94		98		89					
ICSAB 240-336877/11	11:27	96		99		92					
CCV 240-336877/91	17:25	103		107		97					
CCB 240-336877/92	17:30	106		111		103					
MB 240-335239/1-A	17:39	101		105		99					
LCS 240-335239/3-A	17:43	95		100		93					
240-98135-3	17:48	96		101		95					
240-98135-3 SD	17:52	101		105		101					
240-98135-3 MS	18:01	98		103		93					
240-98135-3 MSD	18:06	97		104		94					
240-98135-3	18:10	98		103		95					
240-98135-3 SD	18:14	103		106		98					
CCV 240-336877/103	18:19	100		105		92					
CCB 240-336877/104	18:23	103		108		100					
240-98135-3 MS	18:28	97		104		93					
240-98135-3 MSD	18:32	95		102		93					
240-98135-2	18:37	95		101		91					
240-98135-2	18:41	98		105		94					
CCV 240-336877/115	19:12	101		106		96					
CCB 240-336877/116	19:17	102		108		98					
CCV 240-336877/123	19:48	99		102		97					
CCB 240-336877/124	19:52	102		106		100					
CCVL 240-336877/125	19:57	99		104		98					
MB 240-335875/1-A	20:01	98		101		98					
LCS 240-335875/2-A	20:06	98		101		94					
240-98352-2	20:10	98		102		86					
240-98352-2 SD	20:15	104		106		97					
240-98352-2 MS	20:19	97		98		89					
240-98352-2 MSD	20:24	95		99		86					
240-98352-2	20:28	97		100		88					
240-98352-2 SD	20:32	98		102		97					
ICSA 240-336877/134	20:37	94		99		90					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/17/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
ICSAB 240-336877/135	20:41	93		100		90					
CCV 240-336877/137	20:50	100		106		95					
CCB 240-336877/138	20:55	103		107		100					
240-98352-2 MS	20:59	91		96		83					
240-98352-2 MSD	21:03	95		98		85					
240-98352-3	21:30	96		101		89					
240-98352-3	21:35	96		101		87					
240-98352-4	21:39	97		102		93					
CCV 240-336877/149	21:44	99		101		93					
CCB 240-336877/150	21:48	100		106		99					
240-98352-4	21:52	96		102		93					
CCV 240-336877/159	22:28	97		103		93					
CCB 240-336877/160	22:33	101		107		99					
MB 240-335663/1-A	22:41	98		103		98					
LCS 240-335663/3-A	22:46	97		101		92					
240-98264-2	22:50	85		90		78					
240-98264-2 SD	22:55	98		101		93					
240-98264-2 MS	23:04	88		92		80					
240-98264-2 MSD	23:08	87		92		80					
CCV 240-336877/171	23:22	99		104		94					
CCB 240-336877/172	23:26	103		106		100					
240-98264-2	23:35	88		91		79					
240-98264-3	23:40	98		102		98					
240-98264-3	23:44	96		102		97					
CCV 240-336877/183	00:15	99		103		94					
CCB 240-336877/184	00:20	103		105		99					
CCVL 240-336877/187	00:33	99		102		96					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/18/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-337019/3 IC	10:53	95		99		97		97		99	
STD2 240-337019/4 IC	10:58	94		97		97		94		97	
STD3 240-337019/5 IC	11:02	97		99		98		93		92	
STD4 240-337019/6 IC	11:07	97		102		99		102		98	
ICV 240-337019/7	11:11	94		97		98		94		92	
ICB 240-337019/8	11:15	99		101		100		100		99	
ICVL 240-337019/9	11:20	97		101		98		99		102	
ICSA 240-337019/10	11:24	88		98		92		89		91	
ICSAB 240-337019/11	11:29	85		98		95		90		94	
CCV 240-337019/39	13:41	91		100		99		98		99	
CCB 240-337019/40	13:46	95		101		100		103		99	
240-98038-7	13:50	85		92		93		90		87	
240-98038-7	13:55	87		94		93		91		85	
240-98038-8	13:59	86		93		92		89		81	
240-98038-8	14:03	85		90		90		89		85	
240-98038-8 SD	14:08	92		96		97		95		92	
240-98038-8 MS	14:17	79		89		89		88		83	
240-98038-8 MSD	14:21	82		88		90		89		86	
CCV 240-337019/50	14:30	91		96		98		97		95	
CCB 240-337019/51	14:35	100		99		99		102		103	
CCVL 240-337019/52	14:39	98		100		101		103		104	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/18/2018 End Date: 07/18/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-337019/3 IC	10:53	99		101		101					
STD2 240-337019/4 IC	10:58	97		99		97					
STD3 240-337019/5 IC	11:02	98		99		95					
STD4 240-337019/6 IC	11:07	97		99		102					
ICV 240-337019/7	11:11	96		95		96					
ICB 240-337019/8	11:15	99		103		102					
ICVL 240-337019/9	11:20	101		101		101					
ICSA 240-337019/10	11:24	95		96		92					
ICSAB 240-337019/11	11:29	96		99		94					
CCV 240-337019/39	13:41	102		106		102					
CCB 240-337019/40	13:46	103		106		106					
240-98038-7	13:50	96		97		97					
240-98038-7	13:55	93		96		94					
240-98038-8	13:59	92		97		92					
240-98038-8	14:03	94		94		96					
240-98038-8 SD	14:08	100		102		103					
240-98038-8 MS	14:17	94		97		96					
240-98038-8 MSD	14:21	94		97		94					
CCV 240-337019/50	14:30	101		101		101					
CCB 240-337019/51	14:35	104		108		106					
CCVL 240-337019/52	14:39	106		104		107					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/19/2018 End Date: 07/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-337207/3 IC	12:23	100		100		102		97		100	
STD2 240-337207/4 IC	12:28	97		104		100		96		100	
STD3 240-337207/5 IC	12:32	95		102		98		93		98	
STD4 240-337207/6 IC	12:37	98		105		103		102		105	
ICV 240-337207/7	12:41	97		103		99		96		101	
ICB 240-337207/8	12:46	101		103		101		102		107	
ICVL 240-337207/9	12:50	97		104		101		102		107	
ICSA 240-337207/10	12:54	93		99		97		91		98	
ICSAB 240-337207/11	12:59	89		102		100		93		99	
CCV 240-337207/81	18:19	88		96		99		95		109	
CCB 240-337207/82	18:24	92		97		100		103		114	
MB 240-335663/1-A	18:32	97		94		100		99		107	
LCS 240-335663/3-A	18:37	92		93		97		92		100	
240-98264-2	18:41	76		83		88		76		84	
240-98264-2 SD	18:46	83		93		95		90		101	
240-98264-2 MS	18:55	75		85		89		78		87	
240-98264-2 MSD	18:59	74		85		90		77		89	
240-98264-2	19:04	84		94		98		91		101	
240-98264-2 SD	19:08	89		92		100		97		103	
CCV 240-337207/93	19:13	87		93		99		93		103	
CCB 240-337207/94	19:17	96		96		101		99		108	
240-98264-2 MS	19:21	88		95		98		92		101	
240-98264-2 MSD	19:26	91		94		99		93		102	
240-98264-2	19:44	81		85		92		76		83	
240-98264-2	19:48	88		93		102		90		96	
240-98264-3	19:53	94		94		101		97		102	
240-98264-3	19:57	93		90		100		96		98	
CCV 240-337207/105	20:06	93		91		101		91		97	
CCB 240-337207/106	20:11	101		92		101		98		103	
CCVL 240-337207/110	20:28	102		94		102		99		104	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/19/2018 End Date: 07/19/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-337207/3 IC	12:23	99		98		97					
STD2 240-337207/4 IC	12:28	97		97		93					
STD3 240-337207/5 IC	12:32	98		95		89					
STD4 240-337207/6 IC	12:37	103		98		100					
ICV 240-337207/7	12:41	100		101		92					
ICB 240-337207/8	12:46	102		102		96					
ICVL 240-337207/9	12:50	103		102		97					
ICSA 240-337207/10	12:54	99		96		86					
ICSAB 240-337207/11	12:59	99		98		87					
CCV 240-337207/81	18:19	112		110		102					
CCB 240-337207/82	18:24	113		109		107					
MB 240-335663/1-A	18:32	107		106		104					
LCS 240-335663/3-A	18:37	102		102		100					
240-98264-2	18:41	87		86		79					
240-98264-2 SD	18:46	99		100		95					
240-98264-2 MS	18:55	90		89		81					
240-98264-2 MSD	18:59	89		89		79					
240-98264-2	19:04	104		102		94					
240-98264-2 SD	19:08	104		99		97					
CCV 240-337207/93	19:13	101		98		95					
CCB 240-337207/94	19:17	106		104		100					
240-98264-2 MS	19:21	103		102		93					
240-98264-2 MSD	19:26	104		102		95					
240-98264-2	19:44	84		83		77					
240-98264-2	19:48	95		96		89					
240-98264-3	19:53	101		101		99					
240-98264-3	19:57	100		95		94					
CCV 240-337207/105	20:06	99		97		91					
CCB 240-337207/106	20:11	101		99		98					
CCVL 240-337207/110	20:28	100		99		96					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/20/2018 End Date: 07/21/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
STD1 240-337442/3 IC	21:18	101		101		100		98		99	
STD2 240-337442/4 IC	21:22	92		101		99		94		96	
STD3 240-337442/5 IC	21:27	95		99		99		91		95	
STD4 240-337442/6 IC	21:31	99		103		101		99		104	
ICV 240-337442/7	21:36	95		101		100		96		97	
ICB 240-337442/8	21:40	100		102		100		99		103	
ICVL 240-337442/9	21:45	101		101		101		97		103	
ICSA 240-337442/10	21:49	88		95		94		88		93	
ICSAB 240-337442/11	21:54	87		96		95		90		95	
CCV 240-337442/24	22:53	72		99		72		98		101	
CCB 240-337442/25	22:57	95		101		102		103		106	
240-98352-4	23:42	92		91		96		93		94	
CCV 240-337442/36	23:47	93		97		100		95		97	
CCB 240-337442/37	23:51	99		98		101		102		103	
CCVL 240-337442/42	00:13	95		95		99		97		98	
CCV 240-337442/46	00:31	93		94		95		93		95	
CCB 240-337442/47	00:36	97		96		98		97		100	
MB 240-335884/1-A	00:40	92		92		94		97		98	
LCS 240-335884/3-A	00:45	88		88		92		91		90	
240-98320-1	00:49	81		85		88		78		84	
240-98320-1 SD	00:53	88		96		96		92		97	
240-98320-1 MS	01:02	80		89		88		82		87	
240-98320-1 MSD	01:07	77		90		89		82		88	
240-98320-1	01:11	80		94		90		85		91	
CCV 240-337442/58	01:25	87		94		94		95		97	
CCB 240-337442/59	01:29	90		95		97		99		101	
CCVL 240-337442/64	01:51	96		94		95		99		102	
CCV 240-337442/132	06:55	85		86		89		89		95	
CCB 240-337442/133	06:59	87		93		88		103		104	
MB 240-335875/1-A	07:04	83		84		88		94		94	
LCS 240-335875/2-A	07:08	81		82		84		86		90	
240-98352-2	07:13	81		82		88		82		84	
240-98352-2 SD	07:17	89		91		93		92		97	
240-98352-2 MS	07:21	79		83		86		81		85	
240-98352-2 MSD	07:26	78		84		86		82		87	
240-98352-2	07:30	79		86		88		86		90	
240-98352-2 SD	07:35	85		91		93		93		96	
240-98352-2 MS	07:44	77		85		87		84		88	
CCV 240-337442/144	07:48	84		94		93		93		97	

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/20/2018 End Date: 07/21/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc/1	Q	Element Sc/2	Q	Element Rh	Q	Element In	Q
CCB 240-337442/145	07:53	90		94		94		99		103	
240-98352-2 MSD	07:57	78		85		86		85		90	
240-98352-3	08:02	77		86		87		87		92	
240-98352-3	08:06	78		84		85		85		90	
240-98352-4	08:10	82		86		87		90		95	
CCV 240-337442/150	08:15	84		91		92		92		96	
CCB 240-337442/151	08:19	85		92		91		96		99	
CCVL 240-337442/152	08:24	87		89		89		93		98	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/20/2018 End Date: 07/21/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 240-337442/3 IC	21:18	99		99		97					
STD2 240-337442/4 IC	21:22	95		97		94					
STD3 240-337442/5 IC	21:27	95		94		90					
STD4 240-337442/6 IC	21:31	98		99		102					
ICV 240-337442/7	21:36	96		96		95					
ICB 240-337442/8	21:40	100		100		100					
ICVL 240-337442/9	21:45	98		101		102					
ICSA 240-337442/10	21:49	94		94		95					
ICSAB 240-337442/11	21:54	95		96		94					
CCV 240-337442/24	22:53	101		103		100					
CCB 240-337442/25	22:57	103		102		104					
240-98352-4	23:42	97		97		96					
CCV 240-337442/36	23:47	99		101		97					
CCB 240-337442/37	23:51	102		102		102					
CCVL 240-337442/42	00:13	95		96		98					
CCV 240-337442/46	00:31	97		98		95					
CCB 240-337442/47	00:36	98		100		101					
MB 240-335884/1-A	00:40	97		98		101					
LCS 240-335884/3-A	00:45	94		96		96					
240-98320-1	00:49	86		88		82					
240-98320-1 SD	00:53	98		99		95					
240-98320-1 MS	01:02	90		88		84					
240-98320-1 MSD	01:07	90		90		85					
240-98320-1	01:11	92		93		87					
CCV 240-337442/58	01:25	100		100		98					
CCB 240-337442/59	01:29	101		102		105					
CCVL 240-337442/64	01:51	100		101		105					
CCV 240-337442/132	06:55	94		100		97					
CCB 240-337442/133	06:59	107		108		107					
MB 240-335875/1-A	07:04	96		99		103					
LCS 240-335875/2-A	07:08	95		96		96					
240-98352-2	07:13	92		94		90					
240-98352-2 SD	07:17	99		101		102					
240-98352-2 MS	07:21	92		94		88					
240-98352-2 MSD	07:26	92		93		88					
240-98352-2	07:30	97		97		91					
240-98352-2 SD	07:35	101		99		102					
240-98352-2 MS	07:44	95		97		91					
CCV 240-337442/144	07:48	100		103		101					

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15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I10 Start Date: 07/20/2018 End Date: 07/21/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
CCB 240-337442/145	07:53	102		101		104					
240-98352-2 MSD	07:57	96		98		91					
240-98352-3	08:02	98		99		93					
240-98352-3	08:06	96		99		93					
240-98352-4	08:10	97		99		99					
CCV 240-337442/150	08:15	97		97		100					
CCB 240-337442/151	08:19	99		99		102					
CCVL 240-337442/152	08:24	95		95		99					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/06/2018 End Date: 07/06/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-335074/2 IC	11:55	95		96		95		94			
STD3 240-335074/3 IC	12:02	93		96		94		92			
STD4 240-335074/4 IC	12:08	100		99		97		97			
ICV 240-335074/5	12:15	96		96		95		94			
ICB 240-335074/6	12:21	99		97		98		99			
ICVL 240-335074/7	12:27	102		100		98		98			
ICSA 240-335074/8	12:34	97		95		91		92			
ICSAB 240-335074/9	12:40	98		96		91		91			
CCV 240-335074/22	14:04	100		95		92		88			
CCB 240-335074/23	14:10	98		92		93		91			
MB 240-334865/1-A	14:23	110		91		88		88			
LCS 240-334865/2-A	14:29	107		90		85		84			
CCV 240-335074/30	14:55	91		88		89		86			
CCB 240-335074/31	15:01	94		89		93		91			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/06/2018 End Date: 07/06/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-335074/2 IC	11:55	96									
STD3 240-335074/3 IC	12:02	95									
STD4 240-335074/4 IC	12:08	97									
ICV 240-335074/5	12:15	96									
ICB 240-335074/6	12:21	98									
ICVL 240-335074/7	12:27	98									
ICSA 240-335074/8	12:34	97									
ICSAB 240-335074/9	12:40	96									
CCV 240-335074/22	14:04	88									
CCB 240-335074/23	14:10	89									
MB 240-334865/1-A	14:23	90									
LCS 240-334865/2-A	14:29	89									
CCV 240-335074/30	14:55	87									
CCB 240-335074/31	15:01	89									

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/06/2018 End Date: 07/07/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-335110/2 IC	11:55	95		96		95		94			
STD3 240-335110/3 IC	12:02	93		96		94		92			
STD4 240-335110/4 IC	12:08	100		99		97		97			
ICV 240-335110/5	12:15	96		96		95		94			
ICB 240-335110/6	12:21	99		97		98		99			
ICVL 240-335110/7	12:27	102		100		98		98			
ICSA 240-335110/8	12:34	97		95		91		92			
ICSAB 240-335110/9	12:40	98		96		91		91			
CCV 240-335110/119	01:41	74		62		65		60			
CCB 240-335110/120	01:47	72		62		68		62			
240-98038-2	02:00	78		63		63		59			
240-98038-2	02:06	78		62		63		59			
240-98038-3	02:13	78		61		63		59			
240-98038-3	02:19	80		64		62		58			
240-98038-4	02:26	68		58		59		54			
240-98038-4	02:32	66		59		60		55			
240-98038-5	02:38	69		60		62		56			
240-98038-5	02:45	69		60		62		57			
240-98038-6	02:51	68		60		64		57			
CCV 240-335110/131	02:58	65		59		65		59			
CCB 240-335110/132	03:04	66		57		68		61			
240-98038-6	03:10	68		60		64		57			
240-98038-7	03:17	69		60		65		58			
240-98038-7	03:23	70		58		65		58			
240-98038-8	03:30	71		62		63		58			
240-98038-8	03:36	72		62		63		57			
240-98038-8 SD	03:42	69		60		64		59			
240-98038-8 MS	03:49	68		59		62		57			
240-98038-8 MSD	03:55	68		60		62		57			
240-98038-8 PDS	04:02	68		60		63		58			
CCV 240-335110/142	04:08	64		58		64		58			
CCB 240-335110/143	04:15	65		59		66		61			
CCVL 240-335110/144	04:21	66		59		65		60			

SAMPLE RESULTS WERE NOT REPORTED FROM THIS RUN.

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/06/2018 End Date: 07/07/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-335110/2 IC	11:55	96									
STD3 240-335110/3 IC	12:02	95									
STD4 240-335110/4 IC	12:08	97									
ICV 240-335110/5	12:15	96									
ICB 240-335110/6	12:21	98									
ICVL 240-335110/7	12:27	98									
ICSA 240-335110/8	12:34	97									
ICSAB 240-335110/9	12:40	96									
CCV 240-335110/119	01:41	56									
CCB 240-335110/120	01:47	57									
240-98038-2	02:00	56									
240-98038-2	02:06	56									
240-98038-3	02:13	57									
240-98038-3	02:19	55									
240-98038-4	02:26	53									
240-98038-4	02:32	54									
240-98038-5	02:38	55									
240-98038-5	02:45	54									
240-98038-6	02:51	80									
CCV 240-335110/131	02:58	55									
CCB 240-335110/132	03:04	57									
240-98038-6	03:10	80									
240-98038-7	03:17	56									
240-98038-7	03:23	56									
240-98038-8	03:30	56									
240-98038-8	03:36	56									
240-98038-8 SD	03:42	55									
240-98038-8 MS	03:49	56									
240-98038-8 MSD	03:55	56									
240-98038-8 PDS	04:02	56									
CCV 240-335110/142	04:08	55									
CCB 240-335110/143	04:15	56									
CCVL 240-335110/144	04:21	55									

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/09/2018 End Date: 07/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-335427/2 IC	10:20	99		101		98		97			
STD3 240-335427/3 IC	10:26	95		102		96		95			
STD4 240-335427/4 IC	10:33	107		106		99		98			
ICV 240-335427/5	10:39	101		103		98		96			
ICB 240-335427/6	10:45	108		105		100		99			
ICVL 240-335427/7	10:52	106		102		98		98			
ICSA 240-335427/8	10:58	101		98		89		88			
ICSAB 240-335427/9	11:05	92		97		90		90			
ICSA 240-335427/57	16:12	98		92		85		82			
ICSAB 240-335427/58	16:19	97		94		85		83			
CCV 240-335427/90	19:44	109		77		73		65			
CCB 240-335427/91	19:51	115		77		75		67			
240-98038-2	20:04	109		72		69		64			
240-98038-2	20:10	111		71		69		64			
240-98038-3	20:16	109		69		69		63			
240-98038-3	20:23	106		68		66		62			
240-98038-4	20:29	106		65		63		57			
240-98038-4	20:36	102		67		63		57			
240-98038-5	20:42	98		67		67		60			
240-98038-5	20:49	100		68		66		61			
240-98038-6	20:55	97		69		68		60			
CCV 240-335427/102	21:01	107		73		72		64			
CCB 240-335427/103	21:08	109		75		74		66			
240-98038-6	21:14	95		68		68		60			
240-98038-7	21:21	102		71		71		62			
240-98038-7	21:27	105		71		70		62			
240-98038-8	21:34	107		71		67		61			
240-98038-8	21:40	101		70		67		61			
240-98038-8 SD	21:46	107		74		71		64			
240-98038-8 MS	21:53	96		68		66		59			
240-98038-8 MSD	21:59	99		69		66		60			
240-98038-8 PDS	22:06	102		70		69		61			
CCV 240-335427/113	22:12	105		72		71		63			
CCB 240-335427/114	22:19	110		73		72		65			
CCVL 240-335427/115	22:25	108		73		73		65			

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/09/2018 End Date: 07/09/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-335427/2 IC	10:20	99									
STD3 240-335427/3 IC	10:26	98									
STD4 240-335427/4 IC	10:33	99									
ICV 240-335427/5	10:39	98									
ICB 240-335427/6	10:45	99									
ICVL 240-335427/7	10:52	98									
ICSA 240-335427/8	10:58	93									
ICSAB 240-335427/9	11:05	96									
ICSA 240-335427/57	16:12	86									
ICSAB 240-335427/58	16:19	87									
CCV 240-335427/90	19:44	61									
CCB 240-335427/91	19:51	62									
240-98038-2	20:04	62									
240-98038-2	20:10	62									
240-98038-3	20:16	62									
240-98038-3	20:23	61									
240-98038-4	20:29	59									
240-98038-4	20:36	58									
240-98038-5	20:42	59									
240-98038-5	20:49	60									
240-98038-6	20:55	87									
CCV 240-335427/102	21:01	61									
CCB 240-335427/103	21:08	61									
240-98038-6	21:14	87									
240-98038-7	21:21	61									
240-98038-7	21:27	60									
240-98038-8	21:34	61									
240-98038-8	21:40	60									
240-98038-8 SD	21:46	61									
240-98038-8 MS	21:53	60									
240-98038-8 MSD	21:59	61									
240-98038-8 PDS	22:06	61									
CCV 240-335427/113	22:12	60									
CCB 240-335427/114	22:19	60									
CCVL 240-335427/115	22:25	60									

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/10/2018 End Date: 07/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element In	Q	Element Tb	Q
STD2 240-335609/2 IC	14:53	100		97		93		93			
STD3 240-335609/3 IC	14:58	108		99		89		90			
STD4 240-335609/4 IC	15:04	106		100		100		100			
ICV 240-335609/5	15:10	101		99		94		94			
ICB 240-335609/6	15:16	114		106		101		101			
ICVL 240-335609/7	15:21	101		100		100		100			
ICSA 240-335609/8	15:27	108		92		89		89			
ICSAB 240-335609/9	15:33	93		89		86		87			
CCV 240-335609/74	21:45	104		86		85		80			
CCB 240-335609/75	21:50	118		89		92		85			
240-98038-2	22:02	71		70		80		79			
240-98038-2	22:08	75		71		82		82			
240-98038-3	22:13	70		71		80		79			
240-98038-3	22:19	64		67		78		78			
240-98038-4	22:25	94		62		67		67			
240-98038-4	22:31	93		64		69		68			
240-98038-5	22:36	65		67		75		73			
240-98038-5	22:42	93		66		73		72			
240-98038-6	22:48	80		66		75		71			
CCV 240-335609/86	22:53	89		78		84		79			
CCB 240-335609/87	22:59	107		84		90		84			
240-98038-6	23:05	92		66		75		71			
240-98038-7	23:11	88		70		82		79			
240-98038-7	23:16	73		70		80		78			
240-98038-8	23:22	100		70		78		77			
240-98038-8	23:28	96		67		76		76			
240-98038-8 SD	23:34	80		80		85		82			
240-98038-8 MS	23:39	86		66		72		71			
240-98038-8 MSD	23:45	74		67		73		72			
240-98038-8 PDS	23:51	85		72		80		76			
CCV 240-335609/97	23:57	110		81		86		80			
CCB 240-335609/98	00:02	119		88		92		83			
CCVL 240-335609/99	00:08	110		86		89		83			

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

ICP-MS Instrument ID: I11 Start Date: 07/10/2018 End Date: 07/11/2018

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Bi	Q	Element	Q	Element	Q	Element	Q
STD2 240-335609/2 IC	14:53	97									
STD3 240-335609/3 IC	14:58	94									
STD4 240-335609/4 IC	15:04	101									
ICV 240-335609/5	15:10	97									
ICB 240-335609/6	15:16	100									
ICVL 240-335609/7	15:21	101									
ICSA 240-335609/8	15:27	94									
ICSAB 240-335609/9	15:33	92									
CCV 240-335609/74	21:45	78									
CCB 240-335609/75	21:50	80									
240-98038-2	22:02	83									
240-98038-2	22:08	85									
240-98038-3	22:13	83									
240-98038-3	22:19	82									
240-98038-4	22:25	74									
240-98038-4	22:31	75									
240-98038-5	22:36	79									
240-98038-5	22:42	77									
240-98038-6	22:48	114									
CCV 240-335609/86	22:53	79									
CCB 240-335609/87	22:59	80									
240-98038-6	23:05	115									
240-98038-7	23:11	85									
240-98038-7	23:16	85									
240-98038-8	23:22	83									
240-98038-8	23:28	82									
240-98038-8 SD	23:34	83									
240-98038-8 MS	23:39	79									
240-98038-8 MSD	23:45	80									
240-98038-8 PDS	23:51	82									
CCV 240-335609/97	23:57	80									
CCB 240-335609/98	00:02	80									
CCVL 240-335609/99	00:08	81									

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_034.d

Lab ID: LCS 320-232794/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.63	113	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07252018A_014.d

Lab ID: LCS 320-233858/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	5.00	5.34	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_039.d

Lab ID: 240-98038-6 MS Client ID: MSA-MW-53I-070218 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.34 J	5.24	98	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07252018A_022.d

Lab ID: 240-98352-3 MS Client ID: DMW-5I-071018 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	5.00	0.082 U	5.22	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_040.d

Lab ID: 240-98038-6 MSD Client ID: MSA-MW-53I-070218 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.41	101	3	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07252018A_023.d

Lab ID: 240-98352-3 MSD Client ID: DMW-5I-071018 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	5.00	5.25	105	1	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07062018A_035.d

Lab ID: INF 320-232794/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	4.24	85	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Perc_07252018A_015.d

Lab ID: INF 320-233858/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/mL)	INF CONCENTRATION (ng/mL)	INF % REC	QC LIMITS REC	#
Perchlorate	5.00	5.03	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab File ID: Perc_07062018A_033.d Lab Sample ID: MB 320-232794/1-A

Matrix: Water Date Extracted: 07/06/2018 17:10

Instrument ID: A5 Date Analyzed: 07/11/2018 02:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-232794/2-A	Perc_07062018A_034.d	07/11/2018 02:45
DMW-16D-070218	240-98038-2	Perc_07062018A_036.d	07/11/2018 03:12
MSA-MW-53S-070218	240-98038-5	Perc_07062018A_037.d	07/11/2018 03:25
MSA-MW-53I-070218	240-98038-6	Perc_07062018A_038.d	07/11/2018 03:39
MSA-MW-53I-070218 MS	240-98038-6 MS	Perc_07062018A_039.d	07/11/2018 03:52
MSA-MW-53I-070218 MSD	240-98038-6 MSD	Perc_07062018A_040.d	07/11/2018 04:05

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 240-98038-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-232794/1-A

Matrix: Water | Lab File ID: Perc_07062018A_033.d

Analysis Method: 6850 | Date Collected:

Extraction Method: Filtration | Date Extracted: 07/06/2018 17:10

Sample wt/vol: 4.00(mL) | Date Analyzed: 07/11/2018 02:32

Con. Extract Vol.: 4.00(mL) | Dilution Factor: 1

Injection Volume: 80(uL) | GC Column: Anion HR ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab File ID: Perc_07252018A_013.d Lab Sample ID: MB 320-233858/1-A

Matrix: Water Date Extracted: 07/13/2018 10:25

Instrument ID: A5 Date Analyzed: 07/25/2018 16:56

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-233858/2-A	Perc_07252018A_014.d	07/25/2018 17:09
DMW-17I-070518	240-98135-3	Perc_07252018A_016.d	07/25/2018 17:36
MSA-MW-18I-070918	240-98264-2	Perc_07252018A_019.d	07/25/2018 18:16
MSA-MW-29D-070918	240-98264-3	Perc_07252018A_020.d	07/25/2018 18:29
DMW-5I-071018	240-98352-3	Perc_07252018A_021.d	07/25/2018 18:43
DMW-5I-071018 MS	240-98352-3 MS	Perc_07252018A_022.d	07/25/2018 18:56
DMW-5I-071018 MSD	240-98352-3 MSD	Perc_07252018A_023.d	07/25/2018 19:09

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-233858/1-A

Matrix: Water Lab File ID: Perc_07252018A_013.d

Analysis Method: 6850 Date Collected:

Extraction Method: Filtration Date Extracted: 07/13/2018 10:25

Sample wt/vol: 4.00(mL) Date Analyzed: 07/25/2018 16:56

Con. Extract Vol.: 4.00(mL) Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.082	U	0.50	0.082

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-230099/13

Matrix: Water Lab File ID: Perc_06202018B_011.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 15:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/3

Matrix: Water Lab File ID: Perc_07062018AX_018.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/10/2018 23:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-233388/29

Matrix: Water Lab File ID: Perc_07062018A_044.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/11/2018 04:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 233388 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-236248/3

Matrix: Water Lab File ID: Perc_07252018A_006.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/25/2018 15:23

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-236248/28

Matrix: Water Lab File ID: Perc_07252018A_031.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 07/25/2018 20:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 236248 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-230099/4

Matrix: Water Lab File ID: Perc_06202018B_002.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 06/20/2018 13:32

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 80(uL) GC Column: Anion HR ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 230099 Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-73-0	Perchlorate	0.078	U	0.50	0.078

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Instrument ID: A5 Calibration Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.6(mm) Calibration End Date: 06/20/2018 15:19

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		25625186	8.94				
UPPER LIMIT		38437779	9.94				
LOWER LIMIT		12812593	7.94				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-230099/13		25609406	9.00				
ICV 320-230099/14		25363165	9.00				
CCVIS 320-233388/1		31630205	9.35				
CCVIS 320-236248/1		27726431	8.09				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 320-233388/1 Date Analyzed: 07/10/2018 22:46

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07062018AX_016 Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		31630205	9.35				
UPPER LIMIT		47445308	10.35				
LOWER LIMIT		15815103	8.35				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-233388/2		30889484	9.38				
CCB 320-233388/3		30633860	9.32				
CCV 320-233388/15		29943513	9.39				
MB 320-232794/1-A		31297428	9.38				
LCS 320-232794/2-A		25902475	9.38				
INF 320-232794/3-A		28033285	9.38				
240-98038-2	DMW-16D-070218	28234534	9.39				
240-98038-5	MSA-MW-53S-070218	30864695	9.36				
240-98038-6	MSA-MW-53I-070218	26924508	9.35				
240-98038-6 MS	MSA-MW-53I-070218 MS	31151571	9.35				
240-98038-6 MSD	MSA-MW-53I-070218 MSD	28157246	9.35				
CCV 320-233388/27		30797338	9.40				
CCVL 320-233388/28		30362865	9.40				
CCB 320-233388/29		30851373	9.40				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Sample No.: CCVIS 320-236248/1 Date Analyzed: 07/25/2018 14:56

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm)

Lab File ID (Standard): Perc_07252018A_004. Heated Purge: (Y/N) N

Calibration ID: 39762

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		27726431	8.09				
UPPER LIMIT		41589647	9.09				
LOWER LIMIT		13863216	7.09				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 320-236248/2		27880978	8.10				
CCB 320-236248/3		27119857	8.10				
MB 320-233858/1-A		25629789	8.10				
LCS 320-233858/2-A		24831890	8.11				
INF 320-233858/3-A		24476818	8.09				
240-98135-3	DMW-17I-070518	25208605	8.10				
CCV 320-236248/15		26505260	8.10				
240-98264-2	MSA-MW-18I-070918	25688335	8.05				
240-98264-3	MSA-MW-29D-070918	25784182	8.05				
240-98352-3	DMW-5I-071018	25238927	8.05				
240-98352-3 MS	DMW-5I-071018 MS	24344491	8.00				
240-98352-3 MSD	DMW-5I-071018 MSD	23856004	8.00				
CCV 320-236248/26		26949933	8.09				
CCVL 320-236248/27		27175428	8.09				
CCB 320-236248/28		27024707	8.09				

18OP = 18-O Perchlorate

Area Limit = 50%-150% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.8652 0.9623	0.8087 0.9480	0.9537 0.9795	0.9432	0.9344	Ave		0.9244				6.2		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1 Analy Batch No.: 230099

SDG No.:

Instrument ID: A5 GC Column: Anion HR ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2018 13:46 Calibration End Date: 06/20/2018 15:19 Calibration ID: 39762

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 320-230099/5	Perc_06202018B_003.d
Level 2	STD02 320-230099/6	Perc_06202018B_004.d
Level 3	STD03 320-230099/7	Perc_06202018B_005.d
Level 4	STD04 320-230099/8	Perc_06202018B_006.d
Level 5	STD05 320-230099/9	Perc_06202018B_007.d
Level 6	STD06 320-230099/10	Perc_06202018B_008.d
Level 7	STD07 320-230099/11	Perc_06202018B_009.d
Level 8	STD08 320-230099/12	Perc_06202018B_010.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Perchlorate	18OP	Ave	359152 12489943	535774 22937002	1245468 43723569	2476912	4819671	0.150 5.00	0.250 10.0	0.500 20.0	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: ICV 320-230099/14 Calibration Date: 06/20/2018 15:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_06202018B_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9817		5.31	5.00	6.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 320-233388/1 Calibration Date: 07/10/2018 22:46

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_016.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9513		2.06	2.00	2.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 320-233388/2 Calibration Date: 07/10/2018 22:59

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018AX_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9150		0.495	0.500	-1.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 320-233388/15 Calibration Date: 07/11/2018 01:52

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9103		0.985	1.00	-1.5	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 320-233388/27 Calibration Date: 07/11/2018 04:32

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_042.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9542		2.06	2.00	3.2	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 320-233388/28 Calibration Date: 07/11/2018 04:45

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07062018A_043.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.8872		0.480	0.500	-4.0	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVIS 320-236248/1 Calibration Date: 07/25/2018 14:56

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07252018A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9141		0.989	1.00	-1.1	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 320-236248/2 Calibration Date: 07/25/2018 15:09

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07252018A_005.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9737		0.527	0.500	5.3	50.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 320-236248/15 Calibration Date: 07/25/2018 18:03

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07252018A_018.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9794		2.12	2.00	6.0	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCV 320-236248/26 Calibration Date: 07/25/2018 20:29

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07252018A_029.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9510		1.03	1.00	2.9	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Lab Sample ID: CCVL 320-236248/27 Calibration Date: 07/25/2018 20:42

Instrument ID: A5 Calib Start Date: 06/20/2018 13:46

GC Column: Anion HR ID: 4.60(mm) Calib End Date: 06/20/2018 15:19

Lab File ID: Perc_07252018A_030.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Ave	0.9244	0.9072		0.491	0.500	-1.9	50.0

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Instrument ID: A5 Start Date: 06/20/2018 13:32

Analysis Batch Number: 230099 End Date: 06/20/2018 20:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-230099/4		06/20/2018 13:32	1	Perc_06202018B_002.d	Anion HR 4.6(mm)
STD01 320-230099/5 IC		06/20/2018 13:46	1	Perc_06202018B_003.d	Anion HR 4.6(mm)
STD02 320-230099/6 IC		06/20/2018 13:59	1	Perc_06202018B_004.d	Anion HR 4.6(mm)
STD03 320-230099/7 IC		06/20/2018 14:12	1	Perc_06202018B_005.d	Anion HR 4.6(mm)
STD04 320-230099/8 IC		06/20/2018 14:26	1	Perc_06202018B_006.d	Anion HR 4.6(mm)
STD05 320-230099/9 ICISAV		06/20/2018 14:39	1	Perc_06202018B_007.d	Anion HR 4.6(mm)
STD06 320-230099/10 IC		06/20/2018 14:52	1	Perc_06202018B_008.d	Anion HR 4.6(mm)
STD07 320-230099/11 IC		06/20/2018 15:06	1	Perc_06202018B_009.d	Anion HR 4.6(mm)
STD08 320-230099/12 IC		06/20/2018 15:19	1	Perc_06202018B_010.d	Anion HR 4.6(mm)
CCB 320-230099/13		06/20/2018 15:32	1	Perc_06202018B_011.d	Anion HR 4.6(mm)
ICV 320-230099/14		06/20/2018 15:45	1	Perc_06202018B_012.d	Anion HR 4.6(mm)
CCV 320-230099/15		06/20/2018 15:59	1		Anion HR 4.6(mm)
CCVL 320-230099/16		06/20/2018 16:12	1		Anion HR 4.6(mm)
CCB 320-230099/17		06/20/2018 16:25	1		Anion HR 4.6(mm)
CCV 320-230099/30		06/20/2018 19:18	1		Anion HR 4.6(mm)
CCV 320-230099/34		06/20/2018 20:12	1		Anion HR 4.6(mm)
CCVL 320-230099/35		06/20/2018 20:25	1		Anion HR 4.6(mm)
CCB 320-230099/36		06/20/2018 20:38	1		Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Instrument ID: A5 Start Date: 07/10/2018 22:46

Analysis Batch Number: 233388 End Date: 07/11/2018 04:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-233388/1		07/10/2018 22:46	1	Perc_07062018AX 016.d	Anion HR 4.6(mm)
CCVL 320-233388/2		07/10/2018 22:59	1	Perc_07062018AX 017.d	Anion HR 4.6(mm)
CCB 320-233388/3		07/10/2018 23:12	1	Perc_07062018AX 018.d	Anion HR 4.6(mm)
ZZZZZ		07/10/2018 23:26	1		Anion HR 4.6(mm)
ZZZZZ		07/10/2018 23:39	1		Anion HR 4.6(mm)
INF 320-232586/3-A		07/10/2018 23:52	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:06	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:19	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:32	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:45	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 00:59	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 01:12	1		Anion HR 4.6(mm)
ZZZZZ		07/11/2018 01:25	1		Anion HR 4.6(mm)
CCV 320-233388/15		07/11/2018 01:52	1	Perc_07062018A_ 030.d	Anion HR 4.6(mm)
ZZZZZ		07/11/2018 02:05	1		Anion HR 4.6(mm)
MB 320-232794/1-A		07/11/2018 02:32	1	Perc_07062018A_ 033.d	Anion HR 4.6(mm)
LCS 320-232794/2-A		07/11/2018 02:45	1	Perc_07062018A_ 034.d	Anion HR 4.6(mm)
INF 320-232794/3-A		07/11/2018 02:59	1	Perc_07062018A_ 035.d	Anion HR 4.6(mm)
240-98038-2		07/11/2018 03:12	1	Perc_07062018A_ 036.d	Anion HR 4.6(mm)
240-98038-5		07/11/2018 03:25	1	Perc_07062018A_ 037.d	Anion HR 4.6(mm)
240-98038-6		07/11/2018 03:39	1	Perc_07062018A_ 038.d	Anion HR 4.6(mm)
240-98038-6 MS		07/11/2018 03:52	1	Perc_07062018A_ 039.d	Anion HR 4.6(mm)
240-98038-6 MSD		07/11/2018 04:05	1	Perc_07062018A_ 040.d	Anion HR 4.6(mm)
CCV 320-233388/27		07/11/2018 04:32	1	Perc_07062018A_ 042.d	Anion HR 4.6(mm)
CCVL 320-233388/28		07/11/2018 04:45	1	Perc_07062018A_ 043.d	Anion HR 4.6(mm)
CCB 320-233388/29		07/11/2018 04:58	1	Perc_07062018A_ 044.d	Anion HR 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Instrument ID: A5 Start Date: 07/25/2018 14:56

Analysis Batch Number: 236248 End Date: 07/25/2018 20:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVIS 320-236248/1		07/25/2018 14:56	1	Perc_07252018A_004.d	Anion HR 4.6(mm)
CCVL 320-236248/2		07/25/2018 15:09	1	Perc_07252018A_005.d	Anion HR 4.6(mm)
CCB 320-236248/3		07/25/2018 15:23	1	Perc_07252018A_006.d	Anion HR 4.6(mm)
ZZZZZ		07/25/2018 15:36	1		Anion HR 4.6(mm)
INF 320-233708/6-A		07/25/2018 15:49	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 16:03	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 16:16	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 16:29	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 16:43	1		Anion HR 4.6(mm)
MB 320-233858/1-A		07/25/2018 16:56	1	Perc_07252018A_013.d	Anion HR 4.6(mm)
LCS 320-233858/2-A		07/25/2018 17:09	1	Perc_07252018A_014.d	Anion HR 4.6(mm)
INF 320-233858/3-A		07/25/2018 17:23	1	Perc_07252018A_015.d	Anion HR 4.6(mm)
240-98135-3		07/25/2018 17:36	1	Perc_07252018A_016.d	Anion HR 4.6(mm)
CCV 320-236248/15		07/25/2018 18:03	1	Perc_07252018A_018.d	Anion HR 4.6(mm)
240-98264-2		07/25/2018 18:16	1	Perc_07252018A_019.d	Anion HR 4.6(mm)
240-98264-3		07/25/2018 18:29	1	Perc_07252018A_020.d	Anion HR 4.6(mm)
240-98352-3		07/25/2018 18:43	1	Perc_07252018A_021.d	Anion HR 4.6(mm)
240-98352-3 MS		07/25/2018 18:56	1	Perc_07252018A_022.d	Anion HR 4.6(mm)
240-98352-3 MSD		07/25/2018 19:09	1	Perc_07252018A_023.d	Anion HR 4.6(mm)
ZZZZZ		07/25/2018 19:22	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 19:36	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 19:49	1		Anion HR 4.6(mm)
ZZZZZ		07/25/2018 20:02	1		Anion HR 4.6(mm)
CCV 320-236248/26		07/25/2018 20:29	1	Perc_07252018A_029.d	Anion HR 4.6(mm)
CCVL 320-236248/27		07/25/2018 20:42	1	Perc_07252018A_030.d	Anion HR 4.6(mm)
CCB 320-236248/28		07/25/2018 20:56	1	Perc_07252018A_031.d	Anion HR 4.6(mm)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Batch Number: 232794 Batch Start Date: 07/06/18 17:10 Batch Analyst: Phan, Quintin C

Batch Method: Filtration Batch End Date: 07/06/18 18:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00040	LC6850SP 00052		
MB 320-232794/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-232794/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-232794/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-98038-F-2	DMW-16D-070218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98038-J-5	MSA-MW-53S-070218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98038-F-6	MSA-MW-53I-070218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98038-F-6 MS	MSA-MW-53I-070218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-98038-F-6 MSD	MSA-MW-53I-070218	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		

Batch Notes	
BA/AG/H Cartridge ID	170905
Batch Comment	Sample ID matches Client ID:QCP 7/2/18
Filter #2 ID	R7PA83892
Filter ID	r6sa44385
Interference check solution ID	1201352
Internal Standard ID#	LC6850SP_00052
Pipette/Syringe/Dispenser ID	R40536G
Analyst ID - IS Reagent Drop	VPM
Analyst ID - IS Reagent Drop Witness	QCP
Analyst ID - TA Reagent Drop	VPM
Analyst ID - TA Reagent Drop Witness	QCP
Reagent Water ID	07/05/2018

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 240-98038-1

SDG No.:

Batch Number: 233858 Batch Start Date: 07/13/18 10:25 Batch Analyst: Phan, Quintin C

Batch Method: Filtration Batch End Date: 07/13/18 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	LC6850IS 00040	LC6850SP 00052		
MB 320-233858/1		Filtration, 6850		4.00 mL	4.00 mL	40 uL			
LCS 320-233858/2		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
INF 320-233858/3		Filtration, 6850		4.00 mL	4.00 mL	40 uL	20 uL		
240-98135-P-3	DMW-17I-070518	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98264-K-2	MSA-MW-18I-070918	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98264-F-3	MSA-MW-29D-070918	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98352-F-3	DMW-5I-071018	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL			
240-98352-F-3 MS	DMW-5I-071018	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		
240-98352-F-3 MSD	DMW-5I-071018	Filtration, 6850	T	4.00 mL	4.00 mL	40 uL	20 uL		

Batch Notes	
BA/AG/H Cartridge ID	180526
Batch Comment	Sample ID matches Client ID:QCP 7/13/18
Filter #2 ID	R7PA83892
Filter ID	r6sa44385
Interference check solution ID	1201352
Internal Standard ID#	LC6850IS_00040
Pipette/Syringe/Dispenser ID	R40536G
Analyst ID - IS Reagent Drop	QCP
Analyst ID - IS Reagent Drop Witness	TWL
Analyst ID - TA Reagent Drop	QCP
Analyst ID - TA Reagent Drop Witness	TWL
Reagent Water ID	07/05/2018

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: TPH Batch Start Date: 05/15/2018

Reporting Units: mg/L Analytical Batch No.: 326842

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	09:47	Phosphate as PO4	1.42	1.37	104	85-115		WCWIBBYNUTRIE_00101
9	ICB	09:50	Phosphate as PO4	0.11				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: TPH Batch Start Date: 07/18/2018

Reporting Units: mg/L Analytical Batch No.: 336832

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:31	Phosphate as PO4	1.53	1.54	100	90-110		WCPhos 1ppm_00041
2	CCB	10:34	Phosphate as PO4	0.11				U	
13	CCV	11:18	Phosphate as PO4	1.53	1.54	100	90-110		WCPhos 1ppm_00041
14	CCB	11:22	Phosphate as PO4	0.11				U	
25	CCV	12:05	Phosphate as PO4	1.53	1.54	100	90-110		WCPhos 1ppm_00041
26	CCB	12:09	Phosphate as PO4	0.11				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 05/03/2018

Reporting Units: mg/L Analytical Batch No.: 325165

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	11:45	Chloride	50.6	50.0	101	90-110		WCICLCS_00657
			Sulfate	50.3	50.0	101	90-110		WCICLCS_00657
11	ICB	12:05	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 05/03/2018

Reporting Units: mg/L Analytical Batch No.: 325166

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICV	11:45	Nitrite as N	2.46	2.50	99	90-110		WCICLCS_00657
			Nitrate as N	2.57	2.50	103	90-110		WCICLCS_00657
11	ICB	12:05	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 07/10/2018

Reporting Units: mg/L Analytical Batch No.: 335524

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:39	Chloride	49.8	50.0	100	90-110		WCICCCV_00828
			Sulfate	50.7	50.0	101	90-110		WCICCCV_00828
2	CCB	18:00	Chloride	0.28				U	
			Sulfate	0.35				U	
13	CCV	21:41	Chloride	49.8	50.0	100	90-110		WCICCCV_00828
			Sulfate	50.7	50.0	101	90-110		WCICCCV_00828
14	CCB	22:01	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 07/10/2018

Reporting Units: mg/L Analytical Batch No.: 335525

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:39	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00828
			Nitrate as N	2.54	2.50	102	90-110		WCICCCV_00828
2	CCB	18:00	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	21:41	Nitrite as N	2.53	2.50	101	90-110		WCICCCV_00828
			Nitrate as N	2.53	2.50	101	90-110		WCICCCV_00828
14	CCB	22:01	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 07/11/2018

Reporting Units: mg/L Analytical Batch No.: 335728

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:46	Chloride	49.7	50.0	99	90-110		WCICCCV_00828
			Sulfate	50.9	50.0	102	90-110		WCICCCV_00828
2	CCB	12:06	Chloride	0.28				U	
			Sulfate	0.35				U	
13	CCV	15:47	Chloride	49.4	50.0	99	90-110		WCICCCV_00828
			Sulfate	50.7	50.0	101	90-110		WCICCCV_00828
14	CCB	16:07	Chloride	0.28				U	
			Sulfate	0.35				U	
25	CCV	19:49	Chloride	49.5	50.0	99	90-110		WCICCCV_00828
			Sulfate	50.8	50.0	102	90-110		WCICCCV_00828
26	CCB	20:09	Chloride	0.28				U	
			Sulfate	0.35				U	
37	CCV	23:50	Chloride	49.6	50.0	99	90-110		WCICCCV_00828
			Sulfate	50.8	50.0	102	90-110		WCICCCV_00828
38	CCB	00:10	Chloride	0.28				U	
			Sulfate	0.35				U	
45	CCV	02:31	Chloride	47.7	50.0	95	90-110		WCICCCV_00828
			Sulfate	48.9	50.0	98	90-110		WCICCCV_00828
46	CCB	02:51	Chloride	0.28				U	
			Sulfate	0.35				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Analyst: LKG Batch Start Date: 07/11/2018

Reporting Units: mg/L Analytical Batch No.: 335729

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:46	Nitrite as N	2.52	2.50	101	90-110		WCICCCV_00828
			Nitrate as N	2.54	2.50	102	90-110		WCICCCV_00828
2	CCB	12:06	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
13	CCV	15:47	Nitrite as N	2.50	2.50	100	90-110		WCICCCV_00828
			Nitrate as N	2.53	2.50	101	90-110		WCICCCV_00828
14	CCB	16:07	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
37	CCV	23:50	Nitrite as N	2.50	2.50	100	90-110		WCICCCV_00828
			Nitrate as N	2.54	2.50	102	90-110		WCICCCV_00828
38	CCB	00:10	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	
45	CCV	02:31	Nitrite as N	2.41	2.50	96	90-110		WCICCCV_00828
			Nitrate as N	2.44	2.50	97	90-110		WCICCCV_00828
46	CCB	02:51	Nitrite as N	0.014				U	
			Nitrate as N	0.014				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG No.:

Analyst: VRP Batch Start Date: 07/13/2018

Reporting Units: mg/L Analytical Batch No.: 529167

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
4	CCV	17:40	Dissolved Organic Carbon	23.0	25.0	92	90-110		TOC_CCV@1000_00041
5	CCB	17:40	Dissolved Organic Carbon	0.50				U	
12	CCV	17:40	Dissolved Organic Carbon	24.6	25.0	98	90-110		TOC_CCV@1000_00041
13	CCB	17:40	Dissolved Organic Carbon	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 336071 Date: 07/13/2018 08:43							
2320B-1997	MB 240-336071/2	Alkalinity	2.6	U	mg/L	5.0	1
Batch ID: 336369 Date: 07/16/2018 09:34							
2320B-1997	MB 240-336369/2	Alkalinity	3.00	J	mg/L	5.0	1
Batch ID: 337243 Date: 07/20/2018 11:29 Prep Batch: 337210 Date: 07/20/2018 10:07							
4500 NH3 C-1997	MB 240-337210/1-A	Ammonia	0.46	U	mg/L	2.0	1
Batch ID: 335524 Date: 07/10/2018 18:20							
9056A	MB 240-335524/3	Chloride	0.28	U	mg/L	1.0	1
9056A	MB 240-335524/3	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 335525 Date: 07/10/2018 18:20							
9056A	MB 240-335525/3	Nitrite as N	0.014	U	mg/L	0.10	1
9056A	MB 240-335525/3	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 335728 Date: 07/11/2018 15:07							
9056A	MB 240-335728/11	Chloride	0.28	U	mg/L	1.0	1
9056A	MB 240-335728/11	Sulfate	0.35	U	mg/L	1.0	1
Batch ID: 335729 Date: 07/11/2018 15:07							
9056A	MB 240-335729/11	Nitrite as N	0.014	U	mg/L	0.10	1
9056A	MB 240-335729/11	Nitrate as N	0.014	U	mg/L	0.10	1
Batch ID: 335966 Date: 07/12/2018 14:00							
SM 2540C	MB 240-335966/1	Total Dissolved Solids	7.8	U	mg/L	10	1
SM 2540C	MB 240-335966/1	Total Dissolved Solids	7.8	U	mg/L	10	1
Batch ID: 336832 Date: 07/18/2018 10:38							
SM4500 P E-1999	MB 240-336832/3	Phosphate as PO4	0.11	U	mg/L	0.31	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 529167 Date: 07/13/2018 17:40							
9060A	MB 490-529167/3	Dissolved Organic Carbon	0.674	J	mg/L	1.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 335524 Date: 07/10/2018 19:40											
9056A	240-98264-2	Chloride	440		mg/L						
9056A	240-98264-2 MS	Chloride	1390		mg/L	1000	96	80-120			
9056A	240-98264-2	Sulfate	1900		mg/L						
9056A	240-98264-2 MS	Sulfate	2840		mg/L	1000	93	80-120			
Batch ID: 335525 Date: 07/10/2018 19:40											
9056A	240-98264-2	Nitrite as N	0.28	U	mg/L						
9056A	240-98264-2 MS	Nitrite as N	49.4		mg/L	50.0	99	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 335524 Date: 07/10/2018 20:00											
9056A	240-98264-2 MSD	Chloride	1400		mg/L	1000	96	80-120	0	15	
9056A	240-98264-2 MSD	Sulfate	2840		mg/L	1000	93	80-120	0	15	
Batch ID: 335525 Date: 07/10/2018 20:00											
9056A	240-98264-2 MSD	Nitrite as N	49.3		mg/L	50.0	99	80-120	0	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 336071	Date: 07/13/2018 08:43										
						LCS Source: WCPHENOMINER_00022					
2320B-1997	LCS 240-336071/3	Alkalinity	269		mg/L	271	99	86-123			
Batch ID: 336369	Date: 07/16/2018 09:34										
						LCS Source: WCPHENOMINER_00022					
2320B-1997	LCS 240-336369/3	Alkalinity	281		mg/L	271	104	86-123			
Batch ID: 337243	Date: 07/20/2018 11:29	Prep Batch: 337210	Date: 07/20/2018 10:07								
						LCS Source: WCWIBBYNUTRIE_00103					
4500 NH3 C-1997	LCS 240-337210/2-A	Ammonia	12.0		mg/L	13.4	90	82-116			
Batch ID: 335524	Date: 07/10/2018 18:40										
						LCS Source: WCICLCS_00665					
9056A	LCS 240-335524/4	Chloride	51.9		mg/L	50.0	104	90-110			
9056A	LCS 240-335524/4	Sulfate	51.6		mg/L	50.0	103	90-110			
Batch ID: 335525	Date: 07/10/2018 18:40										
						LCS Source: WCICLCS_00665					
9056A	LCS 240-335525/4	Nitrite as N	2.45		mg/L	2.50	98	90-110			
9056A	LCS 240-335525/4	Nitrate as N	2.61		mg/L	2.50	104	90-110			
Batch ID: 335728	Date: 07/11/2018 15:27										
						LCS Source: WCICLCS_00665					
9056A	LCS 240-335728/12	Chloride	51.9		mg/L	50.0	104	90-110			
9056A	LCS 240-335728/12	Sulfate	51.9		mg/L	50.0	104	90-110			
Batch ID: 335729	Date: 07/11/2018 15:27										
						LCS Source: WCICLCS_00665					
9056A	LCS 240-335729/12	Nitrite as N	2.44		mg/L	2.50	97	90-110			
9056A	LCS 240-335729/12	Nitrate as N	2.62		mg/L	2.50	105	90-110			
Batch ID: 335966	Date: 07/12/2018 14:00										
						LCS Source: WCPHENOVSOLID_00030					
SM 2540C	LCS 240-335966/2	Total Dissolved Solids	743		mg/L	744	100	80-120			
Batch ID: 336832	Date: 07/18/2018 10:42										
						LCS Source: WCWIBBYNUTRIE_00101					
SM4500 P E-1999	LCS 240-336832/4	Phosphate as PO4	1.61		mg/L	1.37	118	77-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 529167	Date: 07/13/2018 17:40										
						LCS Source: TOC_LCS@1000_00020					
9060A	LCS 490-529167/6	Dissolved Organic Carbon	9.51		mg/L	10.0	95	90-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM4500 P E-1999 MDL Date: 04/25/2017 14:37

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Phosphate as PO4		0.307	0.114

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: ERNIE

Method: SM4500 P E-1999 XMDL Date: 04/25/2017 14:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Phosphate as PO4		0.307	0.114

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 MDL Date: 04/25/2017 10:36

Prep Method: 4500 NH3 B-1997

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia		2	0.455

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 4500 NH3 C-1997 XMDL Date: 04/25/2017 10:37

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		2	0.455

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: CECIL

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: CECIL

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 MDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	2.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: Randolph

Method: 2320B-1997 XMDL Date: 04/25/2017 09:53

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	2.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A MDL Date: 05/02/2017 14:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Chloride		1	0.284
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: VERONICA

Method: 9056A XMDL Date: 05/02/2017 14:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Chloride		1	0.284
Nitrate as N		0.1	0.014
Nitrite as N		0.1	0.014
Sulfate		1	0.348

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C MDL Date: 04/25/2017 14:47

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 04/25/2017 14:48

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	7.795

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A MDL Date: 01/16/2012 09:25

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Dissolved Organic Carbon		1	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: TestAmerica Nashville Job Number: 240-98038-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9060A XMDL Date: 01/16/2012 09:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon		1	0.5

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Prep Method: 4500 NH3 B-1997

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 240-337210/1-A	07/20/2018 10:07	337210		50	50
LCS 240-337210/2-A	07/20/2018 10:07	337210		50	50
240-98264-2	07/20/2018 10:07	337210		50	50
240-98320-1	07/20/2018 10:07	337210		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM4500 P E-1999

Start Date: 05/15/2018 09:30 End Date: 05/15/2018 11:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				P-PO4																								
IC 240-326842/1	1		09:30	X																								
IC 240-326842/2	1		09:32	X																								
IC 240-326842/3	1		09:35	X																								
IC 240-326842/4	1		09:37	X																								
IC 240-326842/5	1		09:40	X																								
IC 240-326842/6	1		09:42	X																								
IC 240-326842/7	1		09:45	X																								
ICV 240-326842/8	1		09:47	X																								
ICB 240-326842/9	1		09:50	X																								
ZZZZZZ			09:53																									
ZZZZZZ			09:55																									
ZZZZZZ			09:58																									
ZZZZZZ			10:00																									
ZZZZZZ			10:03																									
ZZZZZZ			10:05																									
ZZZZZZ			10:08																									
ZZZZZZ			10:10																									
ZZZZZZ			10:13																									
ZZZZZZ			10:16																									
CCV 240-326842/20			10:18																									
CCB 240-326842/21			10:21																									
ZZZZZZ			10:23																									
ZZZZZZ			10:26																									
ZZZZZZ			10:28																									
ZZZZZZ			10:31																									
ZZZZZZ			10:34																									
ZZZZZZ			10:36																									
ZZZZZZ			10:39																									
ZZZZZZ			10:41																									
ZZZZZZ			10:44																									
ZZZZZZ			10:46																									
CCV 240-326842/32			10:49																									
CCB 240-326842/33			10:51																									
ZZZZZZ			10:54																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:02																									
ZZZZZZ			11:04																									
ZZZZZZ			11:07																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM4500 P E-1999

Start Date: 05/15/2018 09:30 End Date: 05/15/2018 11:12

Lab Sample Id	D/F	Type	Time	Analytes																								
				P-PO4																								
CCV 240-326842/40			11:09																									
CCB 240-326842/41			11:12																									

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: ERNIE Analysis Method: SM4500 P E-1999

Start Date: 07/18/2018 10:31 End Date: 07/18/2018 12:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				P-PO4																								
CCV 240-336832/1	1		10:31	X																								
CCB 240-336832/2	1		10:34	X																								
MB 240-336832/3	1	T	10:38	X																								
LCS 240-336832/4	1	T	10:42	X																								
ZZZZZZ			10:46																									
ZZZZZZ			10:50																									
ZZZZZZ			10:54																									
ZZZZZZ			10:58																									
ZZZZZZ			11:02																									
ZZZZZZ			11:06																									
ZZZZZZ			11:10																									
240-98264-2	1	T	11:14	X																								
CCV 240-336832/13	1		11:18	X																								
CCB 240-336832/14	1		11:22	X																								
ZZZZZZ			11:26																									
ZZZZZZ			11:30																									
ZZZZZZ			11:34																									
ZZZZZZ			11:37																									
ZZZZZZ			11:41																									
ZZZZZZ			11:45																									
ZZZZZZ			11:49																									
ZZZZZZ			11:53																									
ZZZZZZ			11:57																									
240-98320-1	1	T	12:01	X																								
CCV 240-336832/25	1		12:05	X																								
CCB 240-336832/26	1		12:09	X																								
ZZZZZZ			12:13																									
ZZZZZZ			12:17																									
ZZZZZZ			12:21																									
ZZZZZZ			12:25																									
ZZZZZZ			12:29																									
ZZZZZZ			12:33																									
CCV 240-336832/33			12:37																									
CCB 240-336832/34			12:41																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 4500 NH3 C-1997

Start Date: 07/20/2018 11:29 End Date: 07/20/2018 11:29

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
MB 240-337210/1-A	1	T	11:29	X																								
LCS 240-337210/2-A	1	T	11:29	X																								
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
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ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
240-98264-2	1	T	11:29	X																								
ZZZZZZ			11:29																									
240-98320-1	1	T	11:29	X																								
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									
ZZZZZZ			11:29																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: CECIL Analysis Method: 2320B-1997

Start Date: 07/16/2018 09:34 End Date: 07/16/2018 09:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			09:34																									
MB 240-336369/2	1	T	09:34	X																								
LCS 240-336369/3	1	T	09:34	X																								
ZZZZZZ			09:41																									
ZZZZZZ			09:41																									
ZZZZZZ			09:41																									
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ZZZZZZ			09:41																									
ZZZZZZ			09:41																									
240-98320-1	1	T	09:41	X																								
ZZZZZZ			09:41																									
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ZZZZZZ			09:41																									
ZZZZZZ			09:41																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: Randolph Analysis Method: 2320B-1997

Start Date: 07/13/2018 08:43 End Date: 07/13/2018 10:39

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			08:43																									
MB 240-336071/2	1	T	08:43	X																								
LCS 240-336071/3	1	T	08:43	X																								
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
240-98264-2	1	T	08:43	X																								
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
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ZZZZZZ			08:43																									
ZZZZZZ			08:43																									
ZZZZZZ			10:39																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 05/03/2018 08:44 End Date: 05/03/2018 12:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
STD1 240-325165/1 IC	1		08:44	X	X																								
STD2 240-325165/2 IC	1		09:04	X	X																								
STD3 240-325165/3 IC	1		09:24	X	X																								
STD4 240-325165/4 IC	1		09:44	X	X																								
STD5 240-325165/5 ICRT	1		10:04	X	X																								
STD6 240-325165/6 IC	1		10:24	X	X																								
STD7 240-325165/7 IC	1		10:44	X	X																								
STD8 240-325165/8 IC	1		11:05	X	X																								
STD9 240-325165/9 IC	1		11:25	X	X																								
ICV 240-325165/10	1		11:45	X	X																								
ICB 240-325165/11	1		12:05	X	X																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 05/03/2018 08:44 End Date: 05/03/2018 12:05

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
STD1 240-325166/1 IC	1		08:44	X	X																								
STD2 240-325166/2 IC	1		09:04	X	X																								
STD3 240-325166/3 IC	1		09:24	X	X																								
STD4 240-325166/4 IC	1		09:44	X	X																								
STD5 240-325166/5 ICRT	1		10:04	X	X																								
STD6 240-325166/6 IC	1		10:24	X	X																								
STD7 240-325166/7 IC	1		10:44	X	X																								
STD8 240-325166/8 IC	1		11:05	X	X																								
STD9 240-325166/9 IC	1		11:25	X	X																								
ICV 240-325166/10	1		11:45	X	X																								
ICB 240-325166/11	1		12:05	X	X																								

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/10/2018 17:39 End Date: 07/10/2018 23:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				Cl-	SO4																								
CCV 240-335524/1	1		17:39	X	X																								
CCB 240-335524/2	1		18:00	X	X																								
MB 240-335524/3	1	T	18:20	X	X																								
LCS 240-335524/4	1	T	18:40	X	X																								
ZZZZZZ			19:00																										
240-98264-2	20	T	19:20	X	X																								
240-98264-2 MS	20	T	19:40	X	X																								
240-98264-2 MSD	20	T	20:00	X	X																								
ZZZZZZ			20:21																										
ZZZZZZ			20:41																										
ZZZZZZ			21:01																										
ZZZZZZ			21:21																										
CCV 240-335524/13	1		21:41	X	X																								
CCB 240-335524/14	1		22:01	X	X																								
ZZZZZZ			22:21																										
ZZZZZZ			22:41																										
CCV 240-335524/17			23:01																										
CCB 240-335524/18			23:22																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/10/2018 17:39 End Date: 07/10/2018 23:22

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
CCV 240-335525/1	1		17:39	X	X																								
CCB 240-335525/2	1		18:00	X	X																								
MB 240-335525/3	1	T	18:20	X	X																								
LCS 240-335525/4	1	T	18:40	X	X																								
240-98264-2	2	T	19:00	X	X																								
ZZZZZZ			19:20																										
240-98264-2 MS	20	T	19:40	X																									
240-98264-2 MSD	20	T	20:00	X																									
ZZZZZZ			20:21																										
ZZZZZZ			20:41																										
ZZZZZZ			21:01																										
ZZZZZZ			21:21																										
CCV 240-335525/13	1		21:41	X	X																								
CCB 240-335525/14	1		22:01	X	X																								
ZZZZZZ			22:21																										
ZZZZZZ			22:41																										
CCV 240-335525/17			23:01																										
CCB 240-335525/18			23:22																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/11/2018 11:46 End Date: 07/12/2018 02:51

Lab Sample Id	D/F	Type	Time	Analytes																									
				CL-	SO4																								
CCV 240-335728/1	1		11:46	X	X																								
CCB 240-335728/2	1		12:06	X	X																								
ZZZZZZ			12:26																										
ZZZZZZ			12:46																										
ZZZZZZ			13:06																										
ZZZZZZ			13:27																										
ZZZZZZ			13:47																										
ZZZZZZ			14:07																										
ZZZZZZ			14:27																										
ZZZZZZ			14:47																										
MB 240-335728/11	1	T	15:07	X	X																								
LCS 240-335728/12	1	T	15:27	X	X																								
CCV 240-335728/13	1		15:47	X	X																								
CCB 240-335728/14	1		16:07	X	X																								
ZZZZZZ			16:28																										
ZZZZZZ			16:48																										
ZZZZZZ			17:08																										
ZZZZZZ			17:28																										
ZZZZZZ			17:48																										
ZZZZZZ			18:08																										
ZZZZZZ			18:28																										
ZZZZZZ			18:48																										
ZZZZZZ			19:08																										
ZZZZZZ			19:29																										
CCV 240-335728/25	1		19:49	X	X																								
CCB 240-335728/26	1		20:09	X	X																								
ZZZZZZ			20:29																										
ZZZZZZ			20:49																										
ZZZZZZ			21:09																										
ZZZZZZ			21:29																										
ZZZZZZ			21:49																										
ZZZZZZ			22:10																										
ZZZZZZ			22:30																										
ZZZZZZ			22:50																										
ZZZZZZ			23:10																										
ZZZZZZ			23:30																										
CCV 240-335728/37	1		23:50	X	X																								
CCB 240-335728/38	1		00:10	X	X																								
ZZZZZZ			00:30																										
ZZZZZZ			00:50																										
ZZZZZZ			01:11																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/11/2018 11:46 End Date: 07/12/2018 02:51

Lab Sample Id	D/F	Type	Time	Analytes																								
				Cl-	SO4																							
ZZZZZZ			01:31																									
ZZZZZZ			01:51																									
240-98320-1	10	T	02:11	X	X																							
CCV 240-335728/45	1		02:31	X	X																							
CCB 240-335728/46	1		02:51	X	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: VERONICA Analysis Method: 9056A

Start Date: 07/11/2018 11:46 End Date: 07/12/2018 02:51

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
CCV 240-335729/1	1		11:46	X	X																								
CCB 240-335729/2	1		12:06	X	X																								
			12:26																										
			13:06																										
ZZZZZZ			13:27																										
ZZZZZZ			13:47																										
ZZZZZZ			14:07																										
MB 240-335729/11	1	T	15:07	X	X																								
LCS 240-335729/12	1	T	15:27	X	X																								
CCV 240-335729/13	1		15:47	X	X																								
CCB 240-335729/14	1		16:07	X	X																								
ZZZZZZ			18:48																										
ZZZZZZ			19:08																										
ZZZZZZ			19:29																										
CCV 240-335729/25			19:49																										
CCB 240-335729/26			20:09																										
ZZZZZZ			20:29																										
ZZZZZZ			20:49																										
ZZZZZZ			21:09																										
ZZZZZZ			22:50																										
ZZZZZZ			23:10																										
CCV 240-335729/37	1		23:50	X	X																								
CCB 240-335729/38	1		00:10	X	X																								
240-98320-1	1	T	01:51	X	X																								
ZZZZZZ			02:11																										
CCV 240-335729/45	1		02:31	X	X																								
CCB 240-335729/46	1		02:51	X	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Canton Job No.: 240-98038-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2540C

Start Date: 07/12/2018 14:00 End Date: 07/12/2018 14:00

Lab Sample Id	D/F	Type	Time	Analytes																								
				TDS																								
MB 240-335966/1	1	T	14:00	X																								
LCS 240-335966/2	1	T	14:00	X																								
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
240-98264-2	1	T	14:00	X																								
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
240-98320-1	1	T	14:00	X																								
ZZZZZZ			14:00																									
ZZZZZZ			14:00																									
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Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Nashville Job No.: 240-98038-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9060A

Start Date: 07/13/2018 17:40 End Date: 07/13/2018 17:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOC																								
ZZZZZZ			17:40																									
ZZZZZZ			17:40																									
MB 490-529167/3	1	D	17:40	X																								
CCV 490-529167/4	1		17:40	X																								
CCB 490-529167/5	1		17:40	X																								
LCS 490-529167/6	1	D	17:40	X																								
ZZZZZZ			17:40																									
ZZZZZZ			17:40																									
ZZZZZZ			17:40																									
240-98264-2	1	D	17:40	X																								
240-98320-1	1	D	17:40	X																								
CCV 490-529167/12	1		17:40	X																								
CCB 490-529167/13	1		17:40	X																								

Prep Types:
D = Dissolved

FORM XIII-IN

MSA
SDG 240-98038-1

BLANK CONTAMINATION EVALUATION

SAMPLE ID	PARAMETER	RESULT		UNCERTAINTY (2σ)	UNITS	MEAN DIFFERENCE
MB 160-374499/6-A	Total Alpha Radium	0.2493	±	0.178	pCi/L	NA
DMW-16D-070218	Total Alpha Radium	0.506	±	0.239	pCi/L	1.723
DMW-16I-070218	Total Alpha Radium	0.322	±	0.198	pCi/L	0.546
DMW-16S-070218	Total Alpha Radium	1.08	±	0.344	pCi/L	4.289

SAMPLE ID	PARAMETER	RESULT		UNCERTAINTY (2σ)	UNITS	MEAN DIFFERENCE
MB 160-375078/4-A	Total Alpha Radium	0.3081	±	0.189	pCi/L	NA
MSA-MW-29D-070918	Total Alpha Radium	0.361	±	0.25	pCi/L	0.338

MEAN DIFFERENCE (MD):

$$\frac{\left|\text{SAMPLE ACTIVITY} - \text{BLANK ACTIVITY}\right|}{\sqrt{((\text{SAMPLE UNCERTAINTY}/2)^2 + (\text{BLANK UNCERTAINTY}/2)^2)}}$$

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 374499 Batch Start Date: 07/09/18 13:39 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/12/18 18:42

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	IngDecDate1	IngDecDate2
LCS 160-374499/1		PrecSep_0, 903.0		1000 mL	8.8018 g	8.8330 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15
LCSD 160-374499/2		PrecSep_0, 903.0		1000 mL	8.7843 g	8.8150 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15
240-98038-I-2	DMW-16D-070218	PrecSep_0, 903.0	T	1000.21 mL	8.7785 g	8.8092 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15
240-98038-J-3	DMW-16I-070218	PrecSep_0, 903.0	T	1000.10 mL	8.7855 g	8.8155 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15
240-98038-M-4	DMW-16S-070218	PrecSep_0, 903.0	T	1000.37 mL	8.8130 g	8.8423 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15
MB 160-374499/6		PrecSep_0, 903.0		1000 mL	8.7546 g	8.7830 g	0.0339 g	07/10/2018 14:27	07/12/2018 13:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	NativeMassBa	Ba Carrier 00038	Ra-226 00027			
LCS 160-374499/1		PrecSep_0, 903.0		0 g	1 mL	1 mL			
LCSD 160-374499/2		PrecSep_0, 903.0		0 g	1 mL	1 mL			
240-98038-I-2	DMW-16D-070218	PrecSep_0, 903.0	T	0 g	1 mL				
240-98038-J-3	DMW-16I-070218	PrecSep_0, 903.0	T	0 g	1 mL				
240-98038-M-4	DMW-16S-070218	PrecSep_0, 903.0	T	0 g	1 mL				
MB 160-374499/6		PrecSep_0, 903.0		0 g	1 mL				

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-BME
Pipette ID	RAD112, SEP009
Analyst ID - Reagent Drop Witness	CLP per JLC
Analyst ID - Reagent Drop	JLC
SOP Number	ST-RC-0040, ST-RC-0002

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 374499 Batch Start Date: 07/09/18 13:39 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/12/18 18:42

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 375078 Batch Start Date: 07/12/18 08:32 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/17/18 15:24

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	IngDecDate1	IngDecDate2
LCS 160-375078/1		PrecSep_0, 903.0		1000 mL	8.7633 g	8.7941 g	0.0339 g	07/13/2018 11:53	07/17/2018 12:55
LCSD 160-375078/2		PrecSep_0, 903.0		1000 mL	8.7943 g	8.8241 g	0.0339 g	07/13/2018 11:53	07/17/2018 12:55
240-98264-J-3	MSA-MW-29D-070918	PrecSep_0, 903.0	T	1000.39 mL	8.7921 g	8.8229 g	0.0339 g	07/13/2018 11:53	07/17/2018 12:55
MB 160-375078/4		PrecSep_0, 903.0		1000 mL	8.7807 g	8.8107 g	0.0339 g	07/13/2018 11:53	07/17/2018 12:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	NativeMassBa	Ba Carrier 00038	Ra-226 00027			
LCS 160-375078/1		PrecSep_0, 903.0		0 g	1 mL	1 mL			
LCSD 160-375078/2		PrecSep_0, 903.0		0 g	1 mL	1 mL			
240-98264-J-3	MSA-MW-29D-070918	PrecSep_0, 903.0	T	0 g	1 mL				
MB 160-375078/4		PrecSep_0, 903.0		0 g	1 mL				

Batch Notes	
Balance ID	1122021820
Batch Comment	Out CPR
Pipette ID	RAD112, SEP009
Analyst ID - Reagent Drop Witness	TJT per JLC
Analyst ID - Reagent Drop	JLC
SOP Number	ST-RC-0040, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 374496 Batch Start Date: 07/09/18 13:25 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/12/18 13:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	Y_TareWt	Y_GrossWt
LCS 160-374496/1		PrecSep_0, 904.0		1000 mL	8.8425 g	8.8755 g	0.0339 g	8.8134 g	8.8375 g
LCSD 160-374496/2		PrecSep_0, 904.0		1000 mL	8.7416 g	8.7769 g	0.0339 g	8.7437 g	8.7681 g
240-98038-K-2	DMW-16D-070218	PrecSep_0, 904.0	T	1000.07 mL	8.7985 g	8.8334 g	0.0339 g	8.7938 g	8.8172 g
240-98038-I-3	DMW-16I-070218	PrecSep_0, 904.0	T	1000.12 mL	8.7665 g	8.7975 g	0.0339 g	8.7402 g	8.7629 g
240-98038-L-4	DMW-16S-070218	PrecSep_0, 904.0	T	1000.04 mL	8.8184 g	8.8519 g	0.0339 g	8.8509 g	8.8748 g
MB 160-374496/6		PrecSep_0, 904.0		1000 mL	8.8285 g	8.8620 g	0.0339 g	8.7817 g	8.8058 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Y_Mass	IngDecDate1	IngDecDate2	NativeMassBa	NativeMassY	Ba Carrier 00038
LCS 160-374496/1		PrecSep_0, 904.0		0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL
LCSD 160-374496/2		PrecSep_0, 904.0		0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL
240-98038-K-2	DMW-16D-070218	PrecSep_0, 904.0	T	0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL
240-98038-I-3	DMW-16I-070218	PrecSep_0, 904.0	T	0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL
240-98038-L-4	DMW-16S-070218	PrecSep_0, 904.0	T	0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL
MB 160-374496/6		PrecSep_0, 904.0		0.02675 g	07/10/2018 14:27	07/12/2018 10:55	0 g	0 g	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Ra-228 00026	Y Carrier 00031				
LCS 160-374496/1		PrecSep_0, 904.0		0.1 mL	0.2 mL				
LCSD 160-374496/2		PrecSep_0, 904.0		0.1 mL	0.2 mL				
240-98038-K-2	DMW-16D-070218	PrecSep_0, 904.0	T		0.2 mL				
240-98038-I-3	DMW-16I-070218	PrecSep_0, 904.0	T		0.2 mL				
240-98038-L-4	DMW-16S-070218	PrecSep_0, 904.0	T		0.2 mL				
MB 160-374496/6		PrecSep_0, 904.0			0.2 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 374496 Batch Start Date: 07/09/18 13:25 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/12/18 13:52

Batch Notes	
Balance ID	1122021820, 1125330898
Batch Comment	In CPR: OUT-BME
Pipette ID	RAD112, SEP009, SEP005
Analyst ID - Reagent Drop Witness	CLP per JLC, CLP per CPR
Analyst ID - Reagent Drop	JLC, CPR
SOP Number	ST-RC-0041, ST-RC-0002

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 375081 Batch Start Date: 07/12/18 08:40 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/17/18 11:38

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Ba_TareWt	Ba_GrossWt	Ba_Mass	Y_TareWt	Y_GrossWt
LCS 160-375081/1		PrecSep_0, 904.0		750 mL	8.7842 g	8.8165 g	0.0339 g	8.7458 g	8.7701 g
LCSD 160-375081/2		PrecSep_0, 904.0		750 mL	8.7946 g	8.8268 g	0.0339 g	8.8265 g	8.8501 g
240-98264-K-3	MSA-MW-29D-070918	PrecSep_0, 904.0	T	1000.30 mL	8.7952 g	8.8294 g	0.0339 g	8.7656 g	8.7906 g
MB 160-375081/6		PrecSep_0, 904.0		750 mL	8.7978 g	8.8289 g	0.0339 g	8.8290 g	8.8526 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Y_Mass	IngDecDate1	IngDecDate2	NativeMassBa	NativeMassY	Ba Carrier 00038
LCS 160-375081/1		PrecSep_0, 904.0		0.02675 g	07/13/2018 11:51	07/17/2018 09:40	0 g	0 g	1 mL
LCSD 160-375081/2		PrecSep_0, 904.0		0.02675 g	07/13/2018 11:51	07/17/2018 09:40	0 g	0 g	1 mL
240-98264-K-3	MSA-MW-29D-070918	PrecSep_0, 904.0	T	0.02675 g	07/13/2018 11:51	07/17/2018 09:40	0 g	0 g	1 mL
MB 160-375081/6		PrecSep_0, 904.0		0.02675 g	07/13/2018 11:51	07/17/2018 09:40	0 g	0 g	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	Ra-228 00026	Y Carrier 00032				
LCS 160-375081/1		PrecSep_0, 904.0		0.1 mL	0.2 mL				
LCSD 160-375081/2		PrecSep_0, 904.0		0.1 mL	0.2 mL				
240-98264-K-3	MSA-MW-29D-070918	PrecSep_0, 904.0	T		0.2 mL				
MB 160-375081/6		PrecSep_0, 904.0			0.2 mL				

Batch Notes	
Balance ID	1122021820
Batch Comment	Out TJT
Pipette ID	RAD112, SEP009, SEP005
Analyst ID - Reagent Drop Witness	TJT per JLC, CMM per CPR
Analyst ID - Reagent Drop	JLC, CPR
SOP Number	ST-RC-0041, ST-RC-0002

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GAS FLOW PROPORTIONAL COUNTER BATCH WORKSHEET

Lab Name: TestAmerica St. Louis Job No.: 240-98038-1

SDG No.:

Batch Number: 375081 Batch Start Date: 07/12/18 08:40 Batch Analyst: Chapman, Jessica L

Batch Method: PrecSep_0 Batch End Date: 07/17/18 11:38

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

APPROVED
By Conrad Reuscher at 6:53 pm, Jul 12, 2018

Thursday, July 12, 2018

Instrument: ***Blue***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 0											
12:15 AM	**Efficiency**						50368.25	50552.05	1516.56	-183.80	Pass
	Background										
	Crosstalk						6.589	347.875	39.589	-341.286	NA
12:24 AM	**Efficiency**	12191.38	12810.43	384.31	-619.04	**FAIL**					
	Background										
	Crosstalk	4615.000	4227.825	65.508	387.175	**DOEF**					
1:02 AM	**Efficiency**	12158.86	12810.43	384.31	-651.57	**FAIL**					
	Background										
	Crosstalk	4575.000	4227.825	65.508	347.175	**DOEF**					
4:24 AM	**Efficiency**										
	Background	0.170	0.126	0.018	0.045	Pass	0.430	0.480	0.093	-0.050	Pass
	Crosstalk										
Detector 1											
12:15 AM	**Efficiency**						47949.66	47641.23	1429.24	308.44	Pass
	Background										
	Crosstalk						10.643	375.000	61.275	-364.357	NA
12:24 AM	**Efficiency**	12920.38	13581.05	407.43	-660.67	**FAIL**					
	Background										
	Crosstalk	4751.000	4345.550	38.640	405.450	**DOEF**					
1:02 AM	**Efficiency**	12871.35	13581.05	407.43	-709.70	**FAIL**					
	Background										
	Crosstalk	4791.500	4345.550	38.640	445.950	**DOEF**					
4:24 AM	**Efficiency**										
	Background	0.115	0.137	0.022	-0.022	Pass	0.455	0.442	0.068	0.013	Pass
	Crosstalk										
Detector 2											

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 12, 2018

Instrument: Blue

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag

The Alpha and Beta +/- limit are based upon initial 20-point population.

The Alpha and Beta +/- limit for Efficiency is stated at 3%. Flags are "FAIL" > 3%.

The Alpha and Beta +/- limit for Background is stated at 1 StDev. Flags are "FAIL" > 3 StDev.

The Alpha +/- limit for Crosstalk is stated at 1 StDev. Flags are "Warning > 2 StDev and "DOEF" > 3 StDev. Beta is negligible, for trend only ("NA").

Times shown reflect the end of the count duration.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Tuesday, July 17, 2018

Instrument: ***Protean***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:31 AM	**Efficiency**	13834.54	14068.05	422.04	-233.51	Pass					
	Background										
	Crosstalk	4796.500	4802.250	75.574	-5.750	Pass					
12:35 AM	**Efficiency**						49825.57	49887.83	1496.63	-62.26	Pass
	Background										
	Crosstalk						9.126	5.375	1.806	3.751	NA
4:11 AM	**Efficiency**										
	Background	0.290	0.088	0.031	0.202	**FAIL**	0.885	0.541	0.087	0.344	**FAIL**
	Crosstalk										
8:41 AM	**Efficiency**										
	Background	0.160	0.088	0.031	0.072	Pass	0.505	0.541	0.087	-0.036	Pass
	Crosstalk										
Detector 3											
12:31 AM	**Efficiency**	12958.40	13271.53	398.15	-313.12	Pass					
	Background										
	Crosstalk	4480.500	4349.025	65.645	131.475	**WARNING**					
12:35 AM	**Efficiency**						59278.25	59018.83	1770.56	259.43	Pass
	Background										
	Crosstalk						14.195	10.375	2.724	3.820	NA
4:11 AM	**Efficiency**										
	Background	0.340	0.085	0.023	0.255	**FAIL**	1.185	0.682	0.093	0.503	**FAIL**
	Crosstalk										
8:41 AM	**Efficiency**										
	Background	0.195	0.085	0.023	0.110	**FAIL**	0.660	0.682	0.093	-0.022	Pass
	Crosstalk										
Detector 4											
12:31 AM	**Efficiency**	16197.25	16556.85	496.71	-359.60	Pass					
	Background										
	Crosstalk	6393.000	6135.800	62.856	257.200	**DOEF**					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Tuesday, July 17, 2018

Instrument: ***Protean***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:36 AM	**Efficiency**	13179.56	13382.03	401.46	-202.47	Pass					
	Background										
	Crosstalk	4579.000	4646.925	43.882	-67.925	Pass					
4:12 AM	**Efficiency**										
	Background	0.265	0.096	0.029	0.169	**FAIL**	0.725	0.470	0.063	0.256	**FAIL**
	Crosstalk										
8:42 AM	**Efficiency**										
	Background	0.050	0.096	0.029	-0.046	Pass	0.460	0.470	0.063	-0.009	Pass
	Crosstalk										
Detector 12											
12:31 AM	**Efficiency**						0.00	57255.23	1717.66	-57255.23	**FAIL**
	Background										
	Crosstalk						0.000	22.750	5.663	-22.750	NA
12:36 AM	**Efficiency**	0.00	16555.28	496.66	-16555.28	**FAIL**					
	Background										
	Crosstalk	5.500	5593.325	888.555	-5587.825	**DOEF**					
4:12 AM	**Efficiency**										
	Background	0.000	0.073	0.021	-0.073	**FAIL**	0.000	0.483	0.059	-0.483	**FAIL**
	Crosstalk										
Detector 13											
12:31 AM	**Efficiency**						54782.17	55313.48	1659.40	-531.31	Pass
	Background										
	Crosstalk						14.702	8.025	2.603	6.677	NA
12:36 AM	**Efficiency**	16705.62	16489.13	494.67	216.49	Pass					
	Background										
	Crosstalk	6105.500	5831.525	819.117	273.975	Pass					
4:12 AM	**Efficiency**										
	Background	0.330	0.141	0.019	0.189	**FAIL**	0.785	0.480	0.068	0.305	**FAIL**
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Tuesday, July 17, 2018

Instrument: Protean

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
8:42 AM	**Efficiency**										
	Background	0.145	0.141	0.019	0.004	Pass	0.445	0.480	0.068	-0.035	Pass
	Crosstalk										
Detector 14											
12:31 AM	**Efficiency**						51696.59	51515.98	1545.48	180.61	Pass
	Background										
	Crosstalk						4.056	0.950	0.742	3.106	NA
12:36 AM	**Efficiency**	14904.81	15209.15	456.27	-304.34	Pass					
	Background										
	Crosstalk	5748.000	5770.450	63.706	-22.450	Pass					
4:12 AM	**Efficiency**										
	Background	0.310	0.106	0.036	0.204	**FAIL**	0.710	0.434	0.070	0.276	**FAIL**
	Crosstalk										
8:42 AM	**Efficiency**										
	Background	0.220	0.106	0.036	0.114	**FAIL**	0.380	0.434	0.070	-0.054	Pass
	Crosstalk										
Detector 15											
12:31 AM	**Efficiency**						44724.30	45036.85	1351.11	-312.55	Pass
	Background										
	Crosstalk						6.084	2.575	1.417	3.509	NA
12:36 AM	**Efficiency**	14797.23	14890.68	446.72	-93.44	Pass					
	Background										
	Crosstalk	5561.000	5361.500	749.037	199.500	Pass					
4:12 AM	**Efficiency**										
	Background	0.310	0.133	0.018	0.178	**FAIL**	0.695	0.553	0.100	0.142	Pass
	Crosstalk										
8:42 AM	**Efficiency**										
	Background	0.285	0.133	0.018	0.153	**FAIL**	0.495	0.553	0.100	-0.058	Pass
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Tuesday, July 17, 2018

Instrument: Protean

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag

The Alpha and Beta +/- limit are based upon initial 20-point population.

The Alpha and Beta +/- limit for Efficiency is stated at 3%. Flags are "FAIL" > 3%.

The Alpha and Beta +/- limit for Background is stated at 1 StDev. Flags are "FAIL" > 3 StDev.

The Alpha +/- limit for Crosstalk is stated at 1 StDev. Flags are "Warning > 2 StDev and "DOEF" > 3 StDev. Beta is negligible, for trend only ("NA").

Times shown reflect the end of the count duration.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

APPROVED
By Conrad Reuscher at 6:53 pm, Jul 12, 2018

Thursday, July 12, 2018

Instrument: ***Purple***

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
Detector 0											
12:07 AM	**Efficiency**	12589.26	12818.03	384.54	-228.77	Pass					
	Background										
	Crosstalk	4097.000	4137.600	27.333	-40.600	Pass					
12:23 AM	**Efficiency**						49688.18	50226.98	1506.81	-538.79	Pass
	Background										
	Crosstalk						132.286	260.250	91.636	-127.964	NA
4:21 AM	**Efficiency**										
	Background	0.210	0.119	0.014	0.091	**FAIL**	0.660	0.457	0.079	0.203	Pass
	Crosstalk										
9:01 AM	**Efficiency**										
	Background	0.150	0.119	0.014	0.031	Pass	0.615	0.457	0.079	0.158	Pass
	Crosstalk										
Detector 1											
12:07 AM	**Efficiency**	13647.45	13847.28	415.42	-199.82	Pass					
	Background										
	Crosstalk	4472.000	4251.525	66.025	220.475	**DOEF**					
12:23 AM	**Efficiency**						48889.78	48796.70	1463.90	93.08	Pass
	Background										
	Crosstalk						224.180	319.350	91.764	-95.170	NA
4:21 AM	**Efficiency**										
	Background	0.160	0.092	0.035	0.069	Pass	0.520	0.435	0.080	0.086	Pass
	Crosstalk										
Detector 2											
12:07 AM	**Efficiency**	13979.17	14421.23	432.64	-442.05	**FAIL**					
	Background										
	Crosstalk	4773.500	4765.100	53.594	8.400	Pass					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 12, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:23 AM	**Efficiency**						50642.08	50875.48	1526.26	-233.39	Pass
	Background										
	Crosstalk						35.479	48.425	14.546	-12.946	NA
1:00 AM	**Efficiency**	14009.69	14421.23	432.64	-411.53	Pass					
	Background										
	Crosstalk	4772.500	4765.100	53.594	7.400	Pass					
4:21 AM	**Efficiency**										
	Background	0.220	0.119	0.024	0.101	**FAIL**	0.570	0.475	0.060	0.095	Pass
	Crosstalk										
9:01 AM	**Efficiency**										
	Background	0.120	0.119	0.024	0.001	Pass	0.530	0.475	0.060	0.055	Pass
	Crosstalk										
Detector 3											
12:07 AM	**Efficiency**	13201.66	13516.38	405.49	-314.71	Pass					
	Background										
	Crosstalk	4777.000	4697.000	60.596	80.000	Pass					
12:23 AM	**Efficiency**						59951.05	60107.23	1803.22	-156.18	Pass
	Background										
	Crosstalk						6.589	5.750	1.923	0.839	NA
4:21 AM	**Efficiency**										
	Background	0.150	0.063	0.017	0.087	**FAIL**	0.865	0.388	0.053	0.477	**FAIL**
	Crosstalk										
9:01 AM	**Efficiency**										
	Background	0.085	0.063	0.017	0.022	Pass	0.515	0.388	0.053	0.127	Pass
	Crosstalk										
Detector 4											
12:07 AM	**Efficiency**	16828.54	16907.73	507.23	-79.18	Pass					
	Background										
	Crosstalk	5936.500	5249.050	86.836	687.450	**DOEF**					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 12, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:23 AM	**Efficiency**						57110.50	56940.95	1708.23	169.55	Pass
	Background										
	Crosstalk						4.544	1.075	0.816	3.469	NA
4:21 AM	**Efficiency**										
	Background	0.180	0.128	0.018	0.053	Pass	0.555	0.512	0.060	0.043	Pass
	Crosstalk										
Detector 5											
12:07 AM	**Efficiency**	16793.52	16603.10	498.09	190.42	Pass					
	Background										
	Crosstalk	6064.500	5630.275	57.623	434.225	**DOEF**					
12:23 AM	**Efficiency**						55005.99	54659.90	1639.80	346.09	Pass
	Background										
	Crosstalk						4.055	0.750	0.769	3.305	NA
4:21 AM	**Efficiency**										
	Background	0.110	0.100	0.026	0.010	Pass	0.600	0.432	0.060	0.168	Pass
	Crosstalk										
Detector 6											
12:07 AM	**Efficiency**	15226.99	15352.98	460.59	-125.98	Pass					
	Background										
	Crosstalk	5717.000	5483.125	60.864	233.875	**DOEF**					
12:23 AM	**Efficiency**						51973.85	52013.25	1560.40	-39.40	Pass
	Background										
	Crosstalk						4.055	1.125	0.793	2.930	NA
4:21 AM	**Efficiency**										
	Background	0.150	0.079	0.015	0.071	**FAIL**	0.765	0.523	0.073	0.243	**FAIL**
	Crosstalk										
9:01 AM	**Efficiency**										
	Background	0.080	0.079	0.015	0.001	Pass	0.620	0.523	0.073	0.097	Pass
	Crosstalk										

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 12, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:10 AM	**Efficiency**	17236.30	17069.95	512.10	166.35	Pass					
	Background										
	Crosstalk	5794.000	5754.475	74.086	39.525	Pass					
12:26 AM	**Efficiency**						57199.02	57028.43	1710.85	170.60	Pass
	Background										
	Crosstalk						21.794	8.875	2.345	12.919	NA
4:22 AM	**Efficiency**										
	Background	0.185	0.079	0.017	0.106	**FAIL**	0.545	0.419	0.043	0.126	Pass
	Crosstalk										
9:02 AM	**Efficiency**										
	Background	0.145	0.079	0.017	0.066	**FAIL**	0.410	0.419	0.043	-0.009	Pass
	Crosstalk										
Detector 13											
12:10 AM	**Efficiency**	15789.85	17214.35	516.43	-1424.50	**FAIL**					
	Background										
	Crosstalk	7182.500	5504.975	107.414	1677.525	**DOEF**					
12:26 AM	**Efficiency**						55744.51	55607.25	1668.22	137.26	Pass
	Background										
	Crosstalk						0.000	17.250	2.414	-17.250	NA
12:58 AM	**Efficiency**	17345.87	17214.35	516.43	131.52	Pass					
	Background										
	Crosstalk	5649.500	5504.975	107.414	144.525	Pass					
4:22 AM	**Efficiency**										
	Background	0.180	0.073	0.017	0.107	**FAIL**	0.455	0.351	0.051	0.104	Pass
	Crosstalk										
9:02 AM	**Efficiency**										
	Background	0.155	0.073	0.017	0.082	**FAIL**	0.385	0.351	0.051	0.034	Pass
	Crosstalk										
Detector 14											

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Gas Proportional Counter Daily Quality Control Checks

Thursday, July 12, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:10 AM	**Efficiency**	15647.76	15614.75	468.44	33.01	Pass					
	Background										
	Crosstalk	5419.500	5358.675	50.187	60.825	Pass					
12:26 AM	**Efficiency**						52531.07	52310.05	1569.30	221.02	Pass
	Background										
	Crosstalk						25.342	9.625	2.182	15.717	NA
4:22 AM	**Efficiency**										
	Background	0.180	0.071	0.019	0.110	**FAIL**	0.510	0.324	0.043	0.186	**FAIL**
	Crosstalk										
9:02 AM	**Efficiency**										
	Background	0.075	0.071	0.019	0.005	Pass	0.300	0.324	0.043	-0.024	Pass
	Crosstalk										
Detector 15											
12:10 AM	**Efficiency**	15157.72	15117.25	453.52	40.47	Pass					
	Background										
	Crosstalk	5299.000	4871.075	600.751	427.925	Pass					
12:26 AM	**Efficiency**						45336.11	45182.03	1355.46	154.08	Pass
	Background										
	Crosstalk						16.219	9.200	2.441	7.019	NA
4:22 AM	**Efficiency**										
	Background	0.180	0.075	0.017	0.105	**FAIL**	0.680	0.403	0.069	0.278	**FAIL**
	Crosstalk										
9:02 AM	**Efficiency**										
	Background	0.115	0.075	0.017	0.040	Pass	0.500	0.403	0.069	0.098	Pass
	Crosstalk										
Detector 16											
12:13 AM	**Efficiency**	12459.66	12631.78	378.95	-172.11	Pass					
	Background										
	Crosstalk	4034.000	3761.825	61.842	272.175	**DOEF**					

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Thursday, July 12, 2018

Instrument: Purple

Detector ID	Check Type	Alpha CPM	Alpha Mean	Alpha +/- limit	Alpha Deviation	Alpha Flag	Beta CPM	Beta Mean	Beta +/- limit	Beta Deviation	Beta Flag
12:30 AM	**Efficiency**						45748.96	45717.00	1371.51	31.96	Pass
	Background										
	Crosstalk						4.055	0.375	0.358	3.680	NA
4:22 AM	**Efficiency**										
	Background	0.150	0.090	0.014	0.061	**FAIL**	0.620	0.486	0.070	0.134	Pass
	Crosstalk										
9:02 AM	**Efficiency**										
	Background	0.060	0.090	0.014	-0.030	Pass	0.250	0.486	0.070	-0.236	**FAIL**
	Crosstalk										

The Alpha and Beta +/- limit are based upon initial 20-point population.

The Alpha and Beta +/- limit for Efficiency is stated at 3%. Flags are "FAIL" > 3%.

The Alpha and Beta +/- limit for Background is stated at 1 StDev. Flags are "FAIL" > 3 StDev.

The Alpha +/- limit for Crosstalk is stated at 1 StDev. Flags are "Warning > 2 StDev and "DOEF" > 3 StDev. Beta is negligible, for trend only ("NA").

Times shown reflect the end of the count duration.

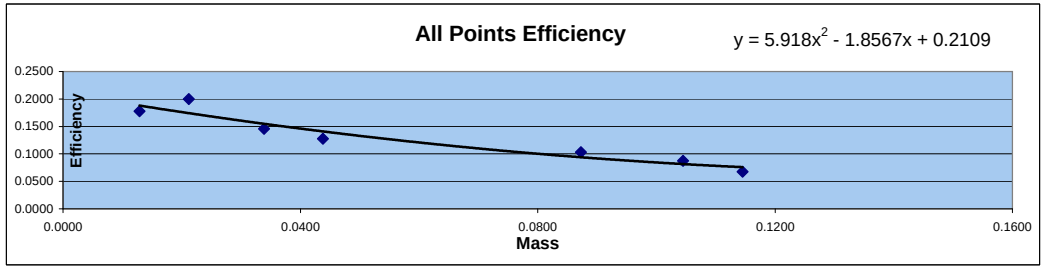
Alpha Beta Calibrations

Curve is for Gross Alpha

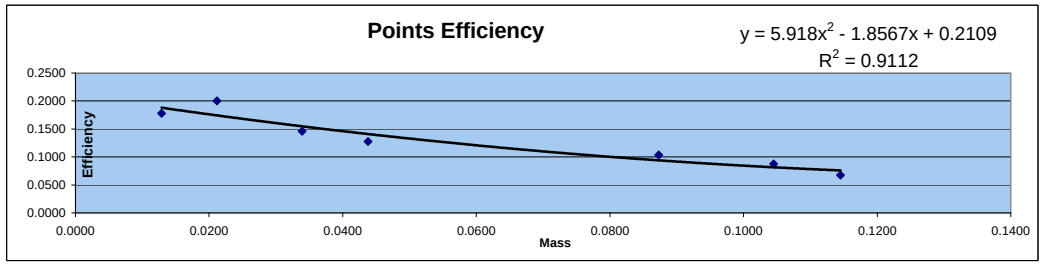
Blue 0

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
0	ICABT-51465;A1	3/19/2017 14:48	50	21102	422.040	2374.5	0.1777	1mL	0.0129
0	ICABT-51465;A2	3/29/2017 14:09	50	23741	474.820	2374.5	0.2000	1mL	0.0212
0	ICABT-51465;A3	3/30/2017 9:08	50	17304	346.080	2374.5	0.1457	1mL	0.0339
0	ICABT-51465;A4	3/30/2017 10:04	50	15142	302.840	2374.5	0.1275	1mL	0.0438
0	ICABT-51465;A6	3/20/2017 5:44	50	24554	491.080	4749.0	0.1034	2mL	0.0873
0	ICABT-51465;A7	3/20/2017 4:38	50	20815	416.300	4749.0	0.0877	2mL	0.1045
0	ICABT-51465;A8	3/20/2017 3:37	50	15992	319.840	4749.0	0.0673	2mL	0.1145

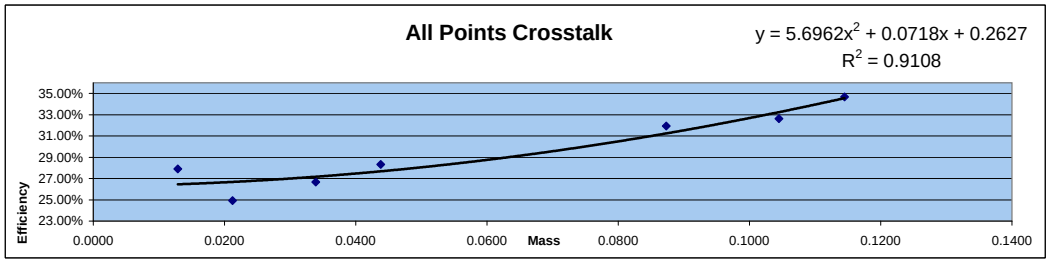
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1777	0.1879	-5.42%
0.0212	0.2000	0.1742	14.79%
0.0339	0.1457	0.1548	-5.82%
0.0438	0.1275	0.1409	-9.50%
0.0873	0.1034	0.0939	10.11%
0.1045	0.0877	0.0815	7.56%
0.1145	0.0673	0.0759	-11.26%



Mass	Efficiency
0.0129	0.1777
0.0212	0.2000
0.0339	0.1457
0.0438	0.1275
0.0873	0.1034
0.1045	0.0877
0.1145	0.0673



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
0	ICABT-51465;A1	0.0129	50	21102	8169	422.04	163.38	27.91%	Min
0	ICABT-51465;A2	0.0212	50	23741	7882	474.82	157.64	24.92%	24.92%
0	ICABT-51465;A3	0.0339	50	17304	6291	346.08	125.82	26.66%	
0	ICABT-51465;A4	0.0438	50	15142	5983	302.84	119.66	28.32%	Max
0	ICABT-51465;A6	0.0873	50	24554	11516	491.08	230.32	31.93%	
0	ICABT-51465;A7	0.1045	50	20815	10079	416.30	201.58	32.62%	Mean
0	ICABT-51465;A8	0.1145	50	15992	8488	319.84	169.76	34.67%	29.58%



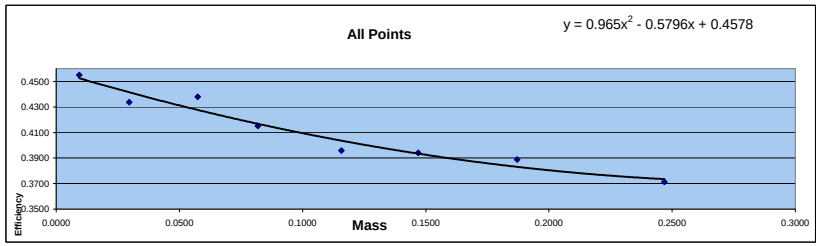
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

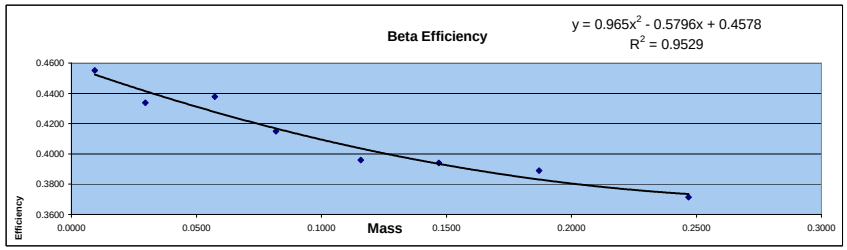
Blue 0

Detector ID	Std ID	Sample Wt	Count Date	Count Time	Beta Counts	DPM 37595.2171 DPM 37592.71382 CPM	Sr-90 Eff	Standard Aliquot
0	B1	0.0093	3/19/2017 14:32	5	85550	17110.000	0.4551	1mL
0	B2	0.0296	3/20/2017 0:59	5	81536	16307.200	0.4338	1mL
0	B3	0.0574	3/20/2017 0:37	5	82310	16462.000	0.4379	1mL
0	B4	0.0818	3/20/2017 0:22	5	78015	15603.000	0.4151	1mL
0	B5	0.1157	3/19/2017 14:40	5	74417	14883.400	0.3959	1mL
0	B6	0.1470	3/20/2017 1:50	5	74059	14811.800	0.3940	1mL
0	B7	0.1871	3/20/2017 3:22	5	73102	14620.400	0.3889	1mL
0	B8	0.2469	3/20/2017 3:28	5	69810	13962.000	0.3714	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4551	0.4525	0.58%
0.0296	0.4338	0.4415	-1.74%
0.0574	0.4379	0.4277	2.38%
0.0818	0.4151	0.4168	-0.43%
0.1157	0.3959	0.4037	-1.93%
0.1470	0.3940	0.3935	0.14%
0.1871	0.3889	0.3831	1.51%
0.2469	0.3714	0.3735	-0.57%



Mass	Efficiency
0.0093	0.4551
0.0296	0.4338
0.0574	0.4379
0.0818	0.4151
0.1157	0.3959
0.1470	0.3940
0.1871	0.3889
0.2469	0.3714



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/17/2009

Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/19/2017
Elapsed Time:	2740.000 days
Half Life:	10409.625 days
Exponential Term:	0.833227329
Corrected Activity:	18797.60855 dpm/mL
Decay Activity (Sr/Y-90)	37595.2171 dpm

Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/17/2009

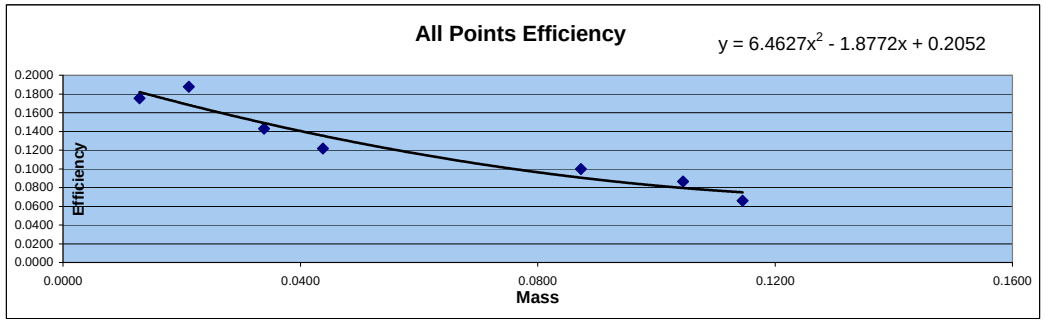
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/20/2017
Elapsed Time:	2741.000 days
Half Life:	10409.625 days
Exponential Term:	0.833171849
Corrected Activity:	18796.35691 dpm/mL
Decay Activity (Sr/Y-90)	37592.71382 dpm

Curve is for Gross Alpha

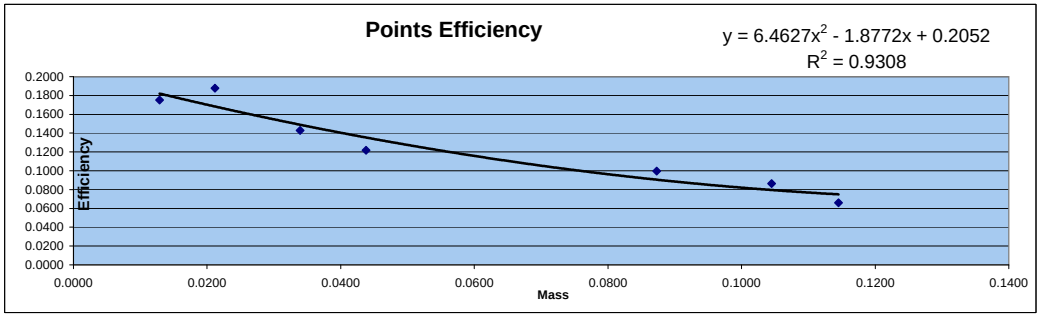
Blue 1

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
1	ICABT-51465;A1	3/20/2017 3:36	50	20806	416.120	2374.5	0.1752	1mL	0.0129
1	ICABT-51465;A2	3/19/2017 14:48	50	22295	445.900	2374.5	0.1878	1mL	0.0212
1	ICABT-51465;A3	3/29/2017 11:58	50	16963	339.260	2374.5	0.1429	1mL	0.0339
1	ICABT-51465;A4	3/29/2017 10:24	50	14460	289.200	2374.5	0.1218	1mL	0.0438
1	ICABT-51465;A6	3/20/2017 6:39	50	23677	473.540	4749.0	0.0997	2mL	0.0873
1	ICABT-51465;A7	3/20/2017 5:44	50	20511	410.220	4749.0	0.0864	2mL	0.1045
1	ICABT-51465;A8	3/20/2017 4:38	50	15645	312.900	4749.0	0.0659	2mL	0.1145

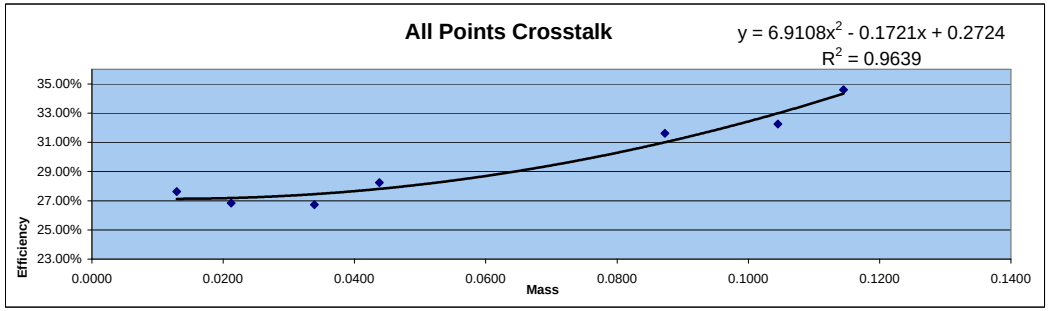
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1752	0.1821	-3.74%
0.0212	0.1878	0.1683	11.57%
0.0339	0.1429	0.1490	-4.10%
0.0438	0.1218	0.1354	-10.03%
0.0873	0.0997	0.0906	10.09%
0.1045	0.0864	0.0796	8.51%
0.1145	0.0659	0.0750	-12.14%



Mass	Efficiency
0.0129	0.1752
0.0212	0.1878
0.0339	0.1429
0.0438	0.1218
0.0873	0.0997
0.1045	0.0864
0.1145	0.0659



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
1	ICABT-51465;A1	0.0129	50	20806	7946	416.12	158.92	27.64%	Min
1	ICABT-51465;A2	0.0212	50	22295	8176	445.90	163.52	26.83%	26.72%
1	ICABT-51465;A3	0.0339	50	16963	6186	339.26	123.72	26.72%	
1	ICABT-51465;A4	0.0438	50	14460	5693	289.20	113.86	28.25%	Max
1	ICABT-51465;A6	0.0873	50	23677	10941	473.54	218.82	31.60%	
1	ICABT-51465;A7	0.1045	50	20511	9763	410.22	195.26	32.25%	Mean
1	ICABT-51465;A8	0.1145	50	15645	8276	312.90	165.52	34.60%	29.70%



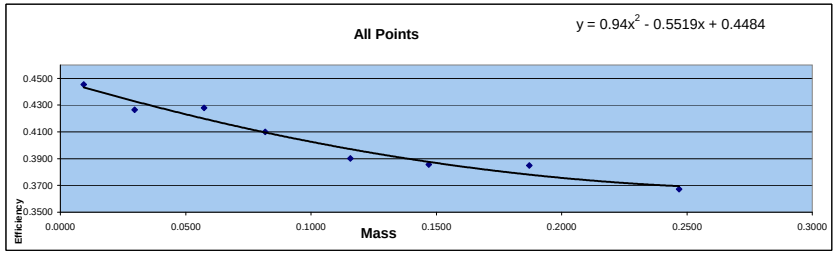
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

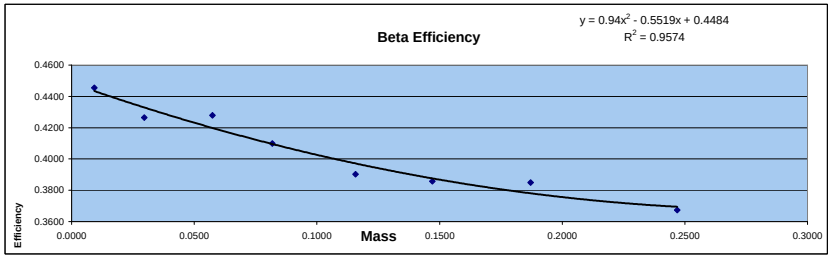
Blue 1

Detector ID	Std ID	Sample Wt	Count Date	Count Time	Beta Counts	DPM 37595.2171 DPM 37592.71382 CPM	Sr-90 Eff	Standard Aliquot
1	B1	0.0093	3/19/2017 23:09	5	83748	16749.600	0.4455	1mL
1	B2	0.0296	3/19/2017 14:32	5	80154	16030.800	0.4264	1mL
1	B3	0.0574	3/20/2017 0:59	5	80431	16086.200	0.4279	1mL
1	B4	0.0818	3/20/2017 0:37	5	77058	15411.600	0.4100	1mL
1	B5	0.1157	3/20/2017 0:22	5	73352	14670.400	0.3902	1mL
1	B6	0.1470	3/19/2017 14:40	5	72511	14502.200	0.3857	1mL
1	B7	0.1871	3/20/2017 1:50	5	72357	14471.400	0.3850	1mL
1	B8	0.2469	3/20/2017 3:22	5	69044	13808.800	0.3673	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4455	0.4433	0.49%
0.0296	0.4264	0.4329	-1.50%
0.0574	0.4279	0.4198	1.93%
0.0818	0.4100	0.4095	0.10%
0.1157	0.3902	0.3971	-1.73%
0.1470	0.3857	0.3876	-0.47%
0.1871	0.3850	0.3780	1.83%
0.2469	0.3673	0.3694	-0.57%



Mass	Efficiency
0.0093	0.4455
0.0296	0.4264
0.0574	0.4279
0.0818	0.4100
0.1157	0.3902
0.1470	0.3857
0.1871	0.3850
0.2469	0.3673



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/17/2009

Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/19/2017
Elapsed Time:	2740.000 days
Half Life:	10409.625 days
Exponential Term:	0.833227329
Corrected Activity:	18797.60855 dpm/mL
Decay Activity (Sr/Y-90)	37595.2171 dpm

Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/17/2009

Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/20/2017
Elapsed Time:	2741.000 days
Half Life:	10409.625 days
Exponential Term:	0.833171849
Corrected Activity:	18796.35691 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

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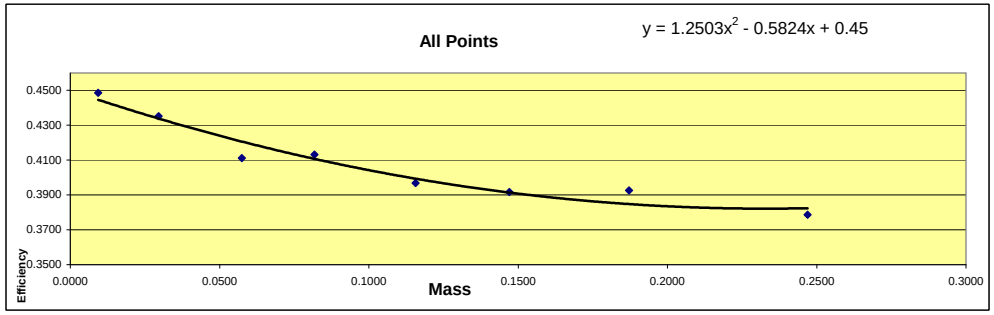
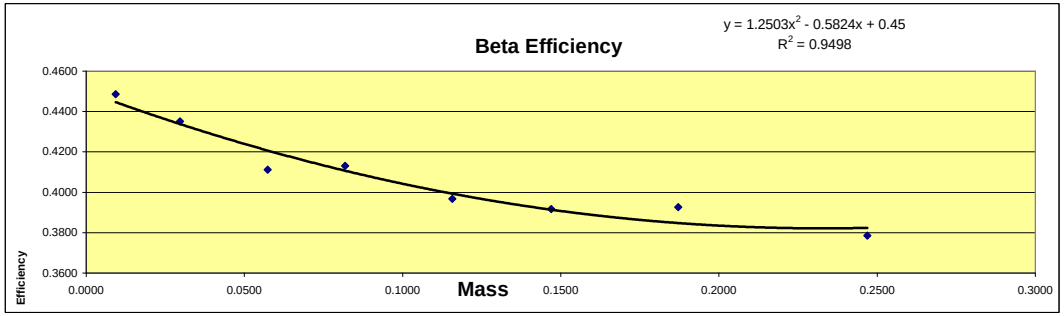
Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41414.371 CPM	Sr-90 Eff	Standard Aliquot
1	B1	3/27/2013 12:33:56 AM	0.0093	1.01	18766	18580.198	0.4486	1mL
1	B2	3/27/2013 12:24:46 AM	0.0296	1.01	18203	18022.772	0.4352	1mL
1	B3	3/27/2013 9:20:52 AM	0.0574	1.01	17197	17026.733	0.4111	1mL
1	B4	3/27/2013 8:55:22 AM	0.0818	1.01	17282	17110.891	0.4132	1mL
1	B5	3/27/2013 8:50:46 AM	0.1157	1.01	16596	16431.683	0.3968	1mL
1	B6	3/27/2013 2:15:52 AM	0.1470	1.01	16384	16221.782	0.3917	1mL
1	B7	3/27/2013 1:10:03 AM	0.1871	1.01	16421	16258.416	0.3926	1mL
1	B8	3/27/2013 12:52:33 AM	0.2469	1.01	15836	15679.208	0.3786	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4486	0.4447	0.89%
0.0296	0.4352	0.4339	0.31%
0.0574	0.4111	0.4207	-2.27%
0.0818	0.4132	0.4107	0.59%
0.1157	0.3968	0.3994	-0.65%
0.1470	0.3917	0.3914	0.07%
0.1871	0.3926	0.3848	2.02%
0.2469	0.3786	0.3824	-1.00%



Mass	Efficiency
0.0093	0.4486
0.0296	0.4352
0.0574	0.4111
0.0818	0.4132
0.1157	0.3968
0.1470	0.3917
0.1871	0.3926
0.2469	0.3786



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

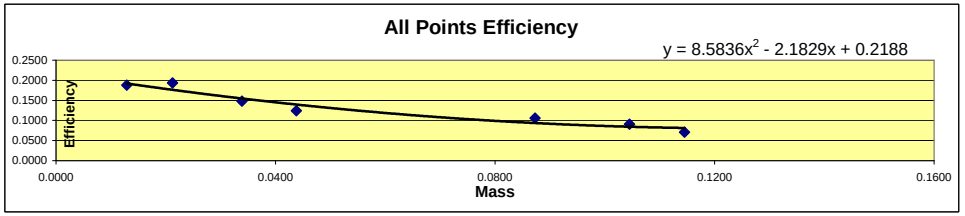
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/27/2013
Elapsed Time:	1287.000 days
Half Life:	10409.625 days
Exponential Term:	0.917871706
Corrected Activity:	20707.18568 dpm/mL
Decay Activity (Sr/Y-90)	41414.37137 dpm

Curve is for Gross Alpha

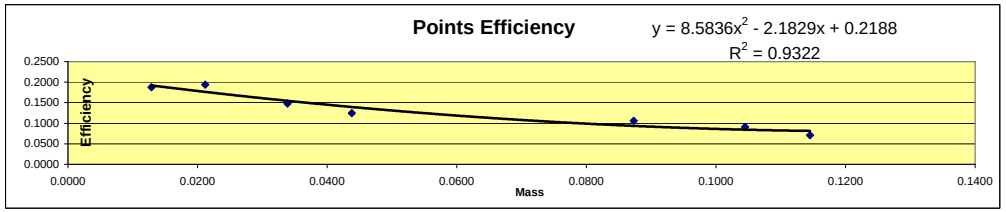
Protean 1

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
1	ICABT-51465l;A1	11/15/2015 1:27:50 PM	22.43	10004	446.010	2374.5	0.1878	1mL	0.0129
1	ICABT-51465l;A2	11/13/2015 1:18:58 PM	50	23017	460.340	2374.5	0.1939	1mL	0.0212
1	ICABT-51465;A3	11/15/2015 6:25:34 PM	28.44	10002	351.688	2374.5	0.1481	1mL	0.0339
1	ICABT-51465;A4	11/15/2015 2:45:06 PM	33.88	10002	295.218	2374.5	0.1243	1mL	0.0438
1	ICABT-51465l;A6	11/14/2015 9:57:48 PM	50	25132	502.640	4749.0	0.1058	2mL	0.0873
1	ICABT-51465l;A7	11/15/2015 11:19:41 PM	23.12	10004	432.699	4749.0	0.0911	2mL	0.1045
1	ICABT-51465l;A8	11/15/2015 10:41:00 PM	29.7	10003	336.801	4749.0	0.0709	2mL	0.1145

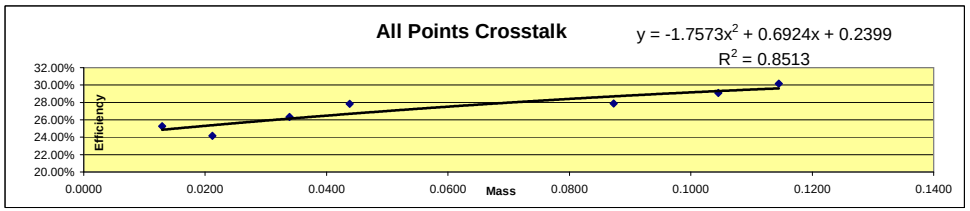
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1878	0.1921	-2.21%
0.0212	0.1939	0.1764	9.91%
0.0339	0.1481	0.1547	-4.24%
0.0438	0.1243	0.1397	-10.98%
0.0873	0.1058	0.0937	13.02%
0.1045	0.0911	0.0844	7.93%
0.1145	0.0709	0.0814	-12.86%



Mass	Efficiency
0.0129	0.1878
0.0212	0.1939
0.0339	0.1481
0.0438	0.1243
0.0873	0.1058
0.1045	0.0911
0.1145	0.0709



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
1	ICABT-51465l;A1	0.0129	22.43	10004	3383	446.01	150.8247882	25.27%	Min
1	ICABT-51465l;A2	0.0212	50	23017	7336	460.34	146.72	24.17%	24.17%
1	ICABT-51465;A3	0.0339	28.44	10002	3575	351.69	125.7032349	26.33%	
1	ICABT-51465;A4	0.0438	33.88	10002	3856	295.22	113.8134593	27.83%	Max
1	ICABT-51465l;A6	0.0873	50	25132	9717	502.64	194.34	27.88%	30.14%
1	ICABT-51465l;A7	0.1045	23.12	10004	4101	432.70	177.3788927	29.07%	
1	ICABT-51465l;A8	0.1145	29.7	10003	4316	336.80	145.3198653	30.14%	Mean
									27.24%



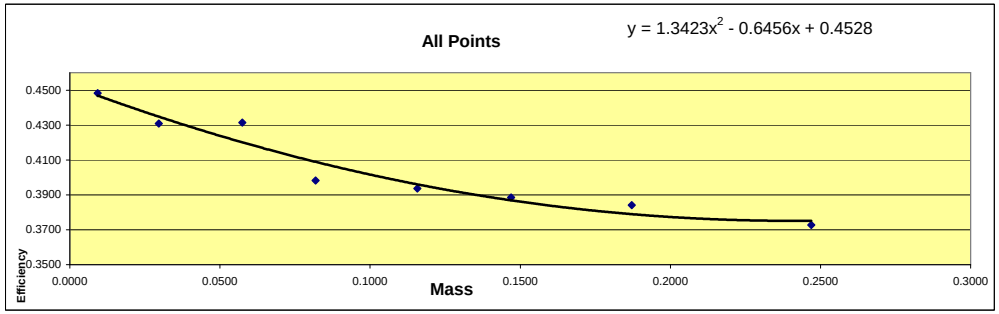
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

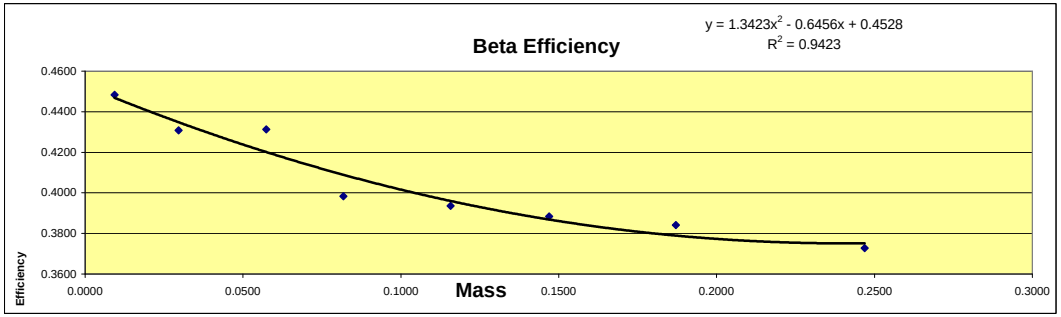
Protean 2

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41414.371 CPM	Sr-90 Eff	Standard Aliquot
2	B1	3/27/2013 12:52:35 AM	0.0093	1.01	18753	18567.327	0.4483	1mL
2	B2	3/27/2013 12:34:01 AM	0.0296	1.01	18021	17842.574	0.4308	1mL
2	B3	3/27/2013 12:24:49 AM	0.0574	1.01	18042	17863.366	0.4313	1mL
2	B4	3/27/2013 9:20:59 AM	0.0818	1.01	16660	16495.050	0.3983	1mL
2	B5	3/27/2013 8:55:34 AM	0.1157	1.01	16463	16300.000	0.3936	1mL
2	B6	3/27/2013 8:51:07 AM	0.1470	1.01	16248	16087.129	0.3884	1mL
2	B7	3/27/2013 2:15:58 AM	0.1871	1.01	16066	15906.931	0.3841	1mL
2	B8	3/27/2013 1:10:16 AM	0.2469	1.01	15594	15439.604	0.3728	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4483	0.4469	0.32%
0.0296	0.4308	0.4349	-0.93%
0.0574	0.4313	0.4202	2.66%
0.0818	0.3983	0.4090	-2.61%
0.1157	0.3936	0.3961	-0.63%
0.1470	0.3884	0.3869	0.40%
0.1871	0.3841	0.3790	1.34%
0.2469	0.3728	0.3752	-0.64%



Mass	Efficiency
0.0093	0.4483
0.0296	0.4308
0.0574	0.4313
0.0818	0.3983
0.1157	0.3936
0.1470	0.3884
0.1871	0.3841
0.2469	0.3728



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

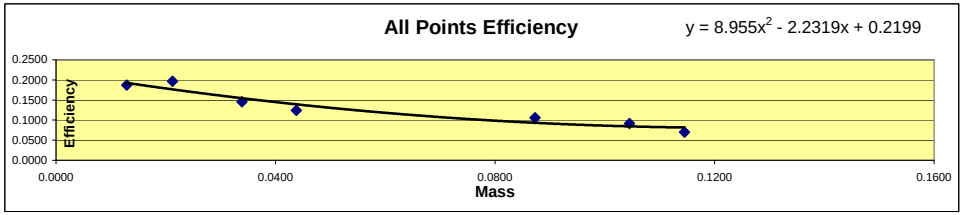
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/27/2013
Elapsed Time:	1287.000 days
Half Life:	10409.625 days
Exponential Term:	0.917871706
Corrected Activity:	20707.18568 dpm/mL
Decay Activity (Sr/Y-90)	41414.37137 dpm

Curve is for Gross Alpha

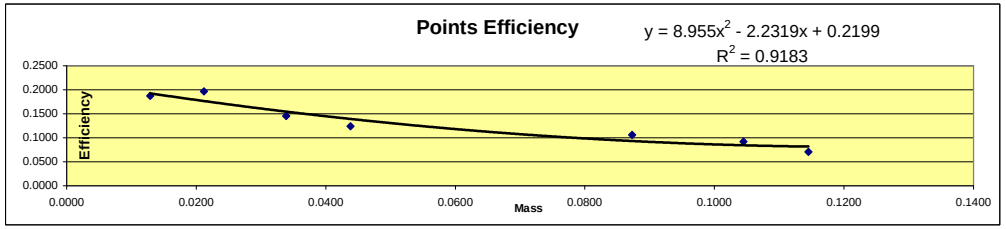
Protean 2

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
2	ICABT-51465;A1	11/15/2015 2:33:30 PM	22.47	10002	445.127	2374.5	0.1875	1mL	0.0129
2	ICABT-51465;A2	11/15/2015 1:26:53 PM	21.39	10005	467.742	2374.5	0.1970	1mL	0.0212
2	ICABT-51465;A3	11/13/2015 1:19:05 PM	50	17267	345.340	2374.5	0.1454	1mL	0.0339
2	ICABT-51465;A4	11/15/2015 6:31:10 PM	33.98	10000	294.291	2374.5	0.1239	1mL	0.0438
2	ICABT-51465;A6	11/15/2015 9:12:52 PM	19.84	10005	504.284	4749.0	0.1062	2mL	0.0873
2	ICABT-51465;A7	11/14/2015 9:57:58 PM	50	21826	436.520	4749.0	0.0919	2mL	0.1045
2	ICABT-51465;A8	11/15/2015 11:26:33 PM	29.93	10000	334.113	4749.0	0.0704	2mL	0.1145

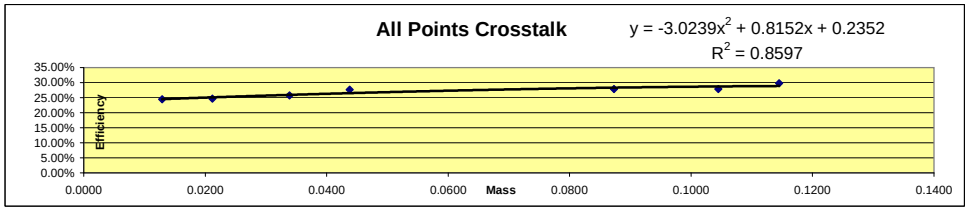
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1875	0.1926	-2.67%
0.0212	0.1970	0.1766	11.54%
0.0339	0.1454	0.1545	-5.88%
0.0438	0.1239	0.1393	-11.04%
0.0873	0.1062	0.0933	13.81%
0.1045	0.0919	0.0845	8.83%
0.1145	0.0704	0.0817	-13.94%



Mass	Efficiency
0.0129	0.1875
0.0212	0.1970
0.0339	0.1454
0.0438	0.1239
0.0873	0.1062
0.1045	0.0919
0.1145	0.0704



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
2	ICABT-51465;A1	0.0129	22.47	10002	3246	445.13	144.46	24.50%	Min
2	ICABT-51465;A2	0.0212	21.39	10005	3282	467.74	153.44	24.70%	24.50%
2	ICABT-51465;A3	0.0339	50	17267	5976	345.34	119.52	25.71%	
2	ICABT-51465;A4	0.0438	33.98	10000	3820	294.29	112.42	27.64%	Max
2	ICABT-51465;A6	0.0873	19.84	10005	3857	504.28	194.41	27.82%	29.74%
2	ICABT-51465;A7	0.1045	50	21826	8451	436.52	169.02	27.91%	
2	ICABT-51465;A8	0.1145	29.93	10000	4232	334.11	141.40	29.74%	Mean
									26.86%



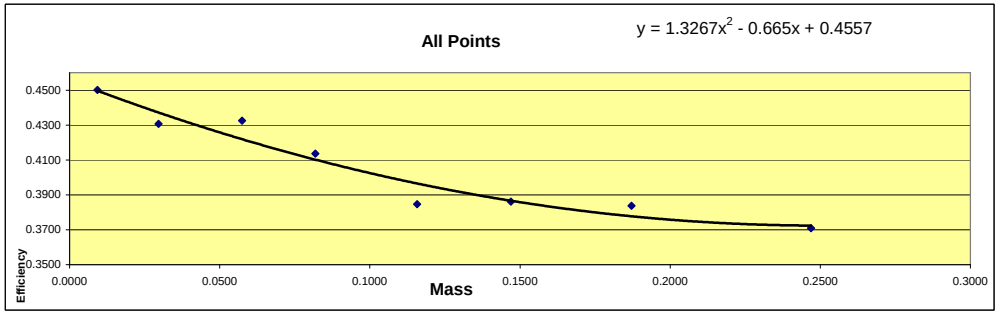
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

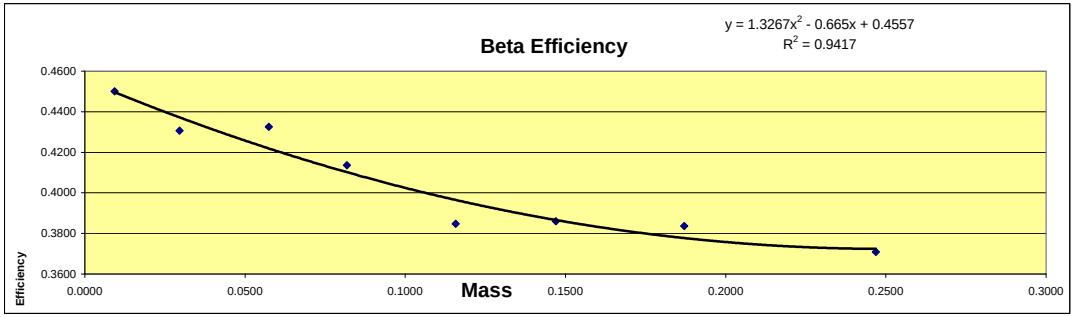
Protean 3

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41414.371 CPM	Sr-90 Eff	Standard Aliquot
3	B1	3/27/2013 1:10:44 AM	0.0093	1.01	18824	18637.624	0.4500	1mL
3	B2	3/27/2013 12:52:35 AM	0.0296	1.01	18014	17835.644	0.4307	1mL
3	B3	3/27/2013 12:34:03 AM	0.0574	1.01	18090	17910.891	0.4325	1mL
3	B4	3/27/2013 12:24:55 AM	0.0818	1.01	17300	17128.713	0.4136	1mL
3	B5	3/27/2013 9:21:04 AM	0.1157	1.01	16093	15933.663	0.3847	1mL
3	B6	3/27/2013 8:55:51 AM	0.1470	1.01	16150	15990.099	0.3861	1mL
3	B7	3/27/2013 8:51:20 AM	0.1871	1.01	16049	15890.099	0.3837	1mL
3	B8	3/27/2013 2:16:15 AM	0.2469	1.01	15514	15360.396	0.3709	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4500	0.4496	0.09%
0.0296	0.4307	0.4372	-1.49%
0.0574	0.4325	0.4219	2.51%
0.0818	0.4136	0.4102	0.83%
0.1157	0.3847	0.3965	-2.97%
0.1470	0.3861	0.3866	-0.13%
0.1871	0.3837	0.3777	1.58%
0.2469	0.3709	0.3724	-0.40%



Mass	Efficiency
0.0093	0.4500
0.0296	0.4307
0.0574	0.4325
0.0818	0.4136
0.1157	0.3847
0.1470	0.3861
0.1871	0.3837
0.2469	0.3709



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

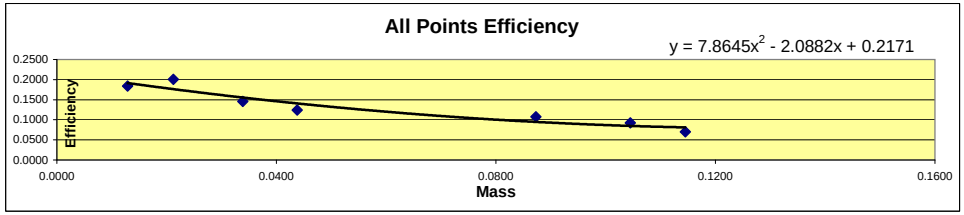
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	3/27/2013
Elapsed Time:	1287.000 days
Half Life:	10409.625 days
Exponential Term:	0.917871706
Corrected Activity:	20707.18568 dpm/mL
Decay Activity (Sr/Y-90)	41414.37137 dpm

Curve is for Gross Alpha

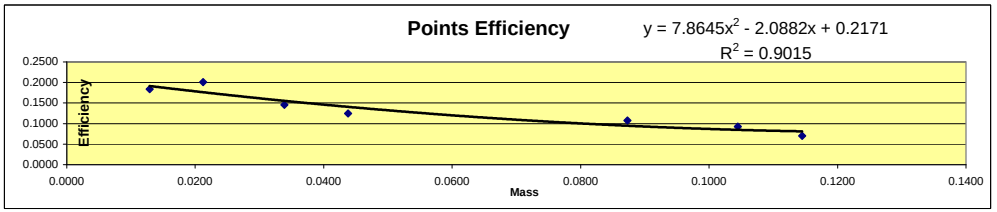
Protean 3

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
3	ICABT-51465I;A1	11/15/2015 6:19:56 PM	22.91	10003	436.622	2374.5	0.1839	1mL	0.0129
3	ICABT-51465I;A2	11/15/2015 2:32:05 PM	20.99	10000	476.417	2374.5	0.2006	1mL	0.0212
3	ICABT-51465;A3	11/15/2015 1:34:28 PM	28.9	10003	346.125	2374.5	0.1458	1mL	0.0339
3	ICABT-51465;A4	11/13/2015 1:19:12 PM	50	14785	295.700	2374.5	0.1245	1mL	0.0438
3	ICABT-51465I;A6	11/15/2015 10:30:47 PM	19.59	10003	510.618	4749.0	0.1075	2mL	0.0873
3	ICABT-51465I;A7	11/15/2015 9:15:53 PM	22.81	10001	438.448	4749.0	0.0923	2mL	0.1045
3	ICABT-51465I;A8	11/14/2015 9:58:08 PM	50	16587	331.740	4749.0	0.0699	2mL	0.1145

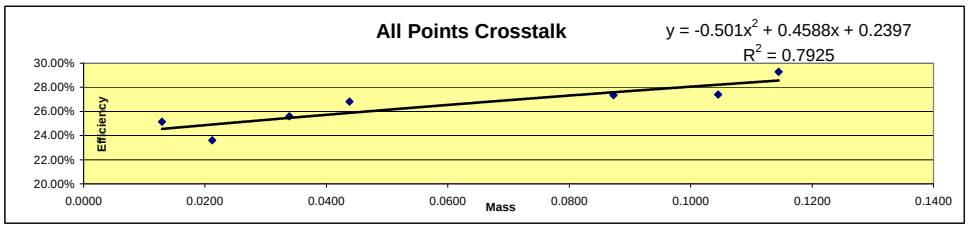
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1839	0.1915	-3.96%
0.0212	0.2006	0.1764	13.76%
0.0339	0.1458	0.1553	-6.17%
0.0438	0.1245	0.1407	-11.51%
0.0873	0.1075	0.0947	13.49%
0.1045	0.0923	0.0848	8.92%
0.1145	0.0699	0.0811	-13.87%



Mass	Efficiency
0.0129	0.1839
0.0212	0.2006
0.0339	0.1458
0.0438	0.1245
0.0873	0.1075
0.1045	0.0923
0.1145	0.0699



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
3	ICABT-51465I;A1	0.0129	22.91	10003	3360	436.62	146.66	25.14%	Min
3	ICABT-51465I;A2	0.0212	20.99	10000	3090	476.42	147.21	23.61%	23.61%
3	ICABT-51465;A3	0.0339	28.9	10003	3442	346.12	119.10	25.60%	
3	ICABT-51465;A4	0.0438	50	14785	5419	295.70	108.38	26.82%	Max
3	ICABT-51465I;A6	0.0873	19.59	10003	3763	510.62	192.09	27.34%	29.28%
3	ICABT-51465I;A7	0.1045	22.81	10001	3774	438.45	165.45	27.40%	
3	ICABT-51465I;A8	0.1145	50	16587	6868	331.74	137.36	29.28%	Mean
									26.46%



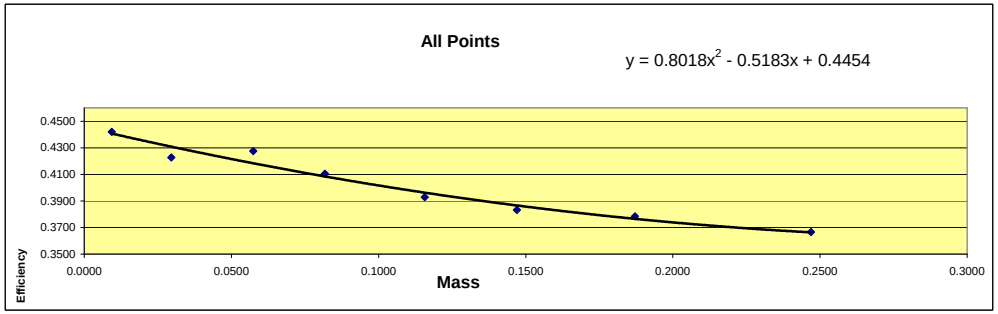
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

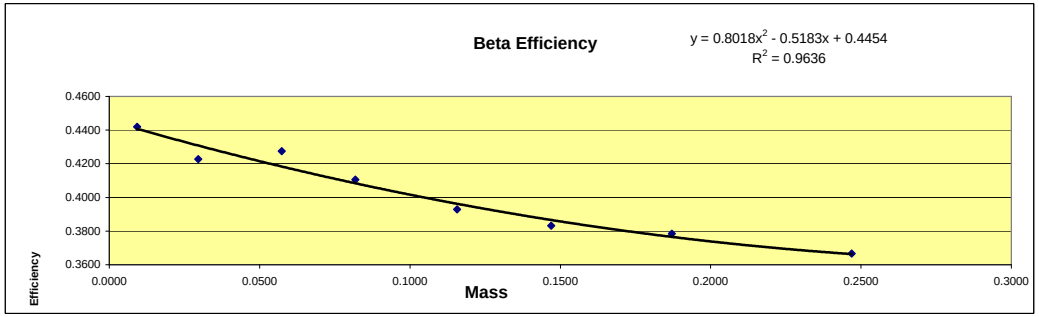
Protean 6

						DPM		
						41414.371		
Detector ID	**Std ID**	**Count Date**	**Sample Wt**	**Count Time**	**Beta Counts**	41411.614 **CPM**	**Sr-90 Eff**	**Standard Aliquot**
6	B1	3/27/2013 8:57:05 AM	0.0093	1.01	18489	18305.941	0.4420	1mL
6	B2	3/27/2013 8:51:24 AM	0.0296	1.01	17685	17509.901	0.4228	1mL
6	B3	3/27/2013 2:16:23 AM	0.0574	1.01	17885	17707.921	0.4276	1mL
6	B4	3/27/2013 1:10:46 AM	0.0818	1.01	17171	17000.990	0.4105	1mL
6	B5	3/27/2013 12:52:37 AM	0.1157	1.01	16434	16271.287	0.3929	1mL
6	B6	3/27/2013 12:34:20 AM	0.1470	1.01	16028	15869.307	0.3832	1mL
6	B7	3/27/2013 12:25:16 AM	0.1871	1.01	15827	15670.297	0.3784	1mL
6	B8	3/28/2013 9:66:06 AM	0.2469	1.01	15335	15182.970	0.3666	1mL

Mass	**Measured Efficiency**	**Theoretical Efficiency**	**Percent Δ Efficiency**
0.0093	0.4420	0.4406	0.31%
0.0296	0.4228	0.4308	-1.85%
0.0574	0.4276	0.4183	2.22%
0.0818	0.4105	0.4084	0.52%
0.1157	0.3929	0.3962	-0.83%
0.1470	0.3832	0.3865	-0.87%
0.1871	0.3784	0.3765	0.50%
0.2469	0.3666	0.3663	0.09%



Mass	**Efficiency**
0.0093	0.4420
0.0296	0.4228
0.0574	0.4276
0.0818	0.4105
0.1157	0.3929
0.1470	0.3832
0.1871	0.3784
0.2469	0.3666



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	3/27/2013	
Elapsed Time:	1287.000	days
Half Life:	10409.625	days
Exponential Term:	0.917871706	
Corrected Activity:	20707.18568	dpm/mL
Decay Activity (Sr/Y-	41414.37137	dpm

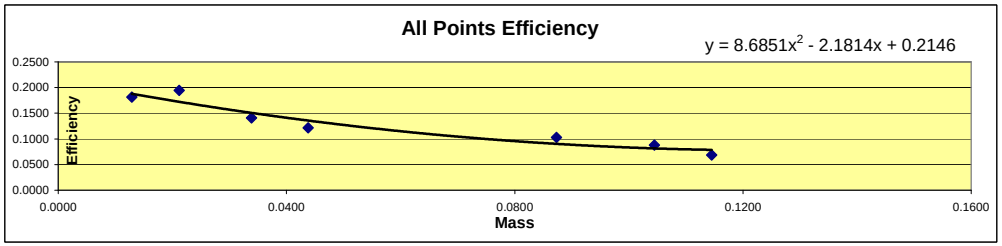
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	3/28/2013	
Elapsed Time:	1288.000	days
Half Life:	10409.625	days
Exponential Term:	0.917810589	
Corrected Activity:	20705.8069	dpm/mL
Decay Activity (Sr/Y-90)	41411.6138	dpm

Curve is for Gross Alpha

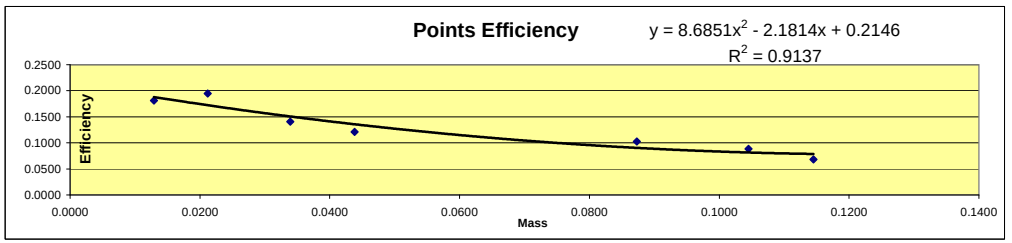
Protean 6

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
6	ICABT-51465;A1	11/24/2015 3:38:12	23.22	10002	430.749	2374.5	0.1814	1mL	0.0129
6	ICABT-51465;A2	11/24/2015 3:03:05	50	23091	461.820	2374.5	0.1945	1mL	0.0212
6	ICABT-51465;A3	11/24/2015 12:57:52	50	16716	334.320	2374.5	0.1408	1mL	0.0339
6	ICABT-51465;A4	11/24/2015 4:55:35	34.73	10003	288.022	2374.5	0.1213	1mL	0.0438
6	ICABT-51465;A6	11/24/2015 6:46:55	20.52	10001	487.378	4749.0	0.1026	2mL	0.0873
6	ICABT-51465;A7	11/24/2015 6:11:42	23.88	10002	418.844	4749.0	0.0882	2mL	0.1045
6	ICABT-51465;A8	11/24/2015 9:12:30	30.84	10000	324.254	4749.0	0.0683	2mL	0.1145

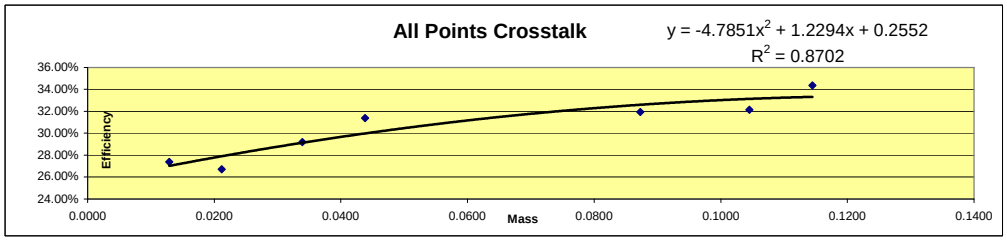
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1814	0.1879	-3.46%
0.0212	0.1945	0.1723	12.91%
0.0339	0.1408	0.1506	-6.53%
0.0438	0.1213	0.1357	-10.62%
0.0873	0.1026	0.0904	13.58%
0.1045	0.0882	0.0815	8.23%
0.1145	0.0683	0.0787	-13.24%



Mass	Efficiency
0.0129	0.1814
0.0212	0.1945
0.0339	0.1408
0.0438	0.1213
0.0873	0.1026
0.1045	0.0882
0.1145	0.0683



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
6	ICABT-51465;A1	0.0129	23.22	10002	3770	430.75	162.36	27.37%	Min
6	ICABT-51465;A2	0.0212	50	23091	8416	461.82	168.32	26.71%	26.71%
6	ICABT-51465;A3	0.0339	50	16716	6891	334.32	137.82	29.19%	
6	ICABT-51465;A4	0.0438	34.73	10003	4576	288.02	131.76	31.39%	Max
6	ICABT-51465;A6	0.0873	20.52	10001	4695	487.38	228.80	31.95%	34.35%
6	ICABT-51465;A7	0.1045	23.88	10002	4739	418.84	198.45	32.15%	
6	ICABT-51465;A8	0.1145	30.84	10000	5233	324.25	169.68	34.35%	Mean
									30.44%



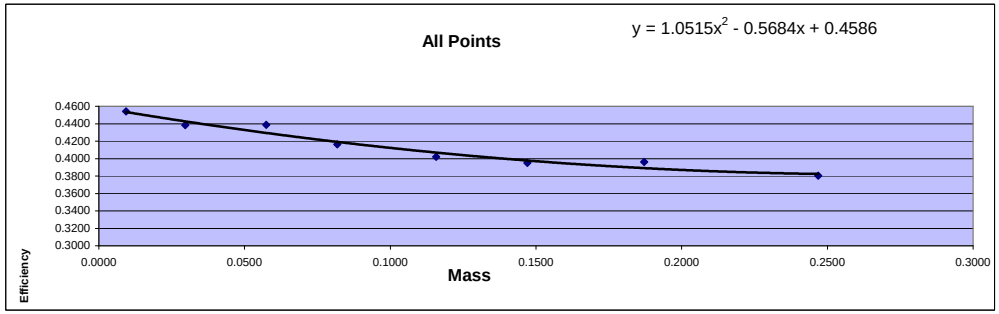
Standard ID
Thorium-230
Th-230_00016 #51465
Cert # 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

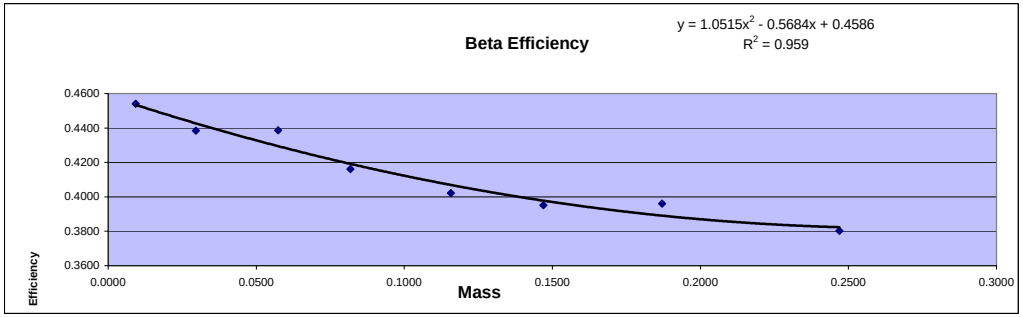
Purple 12

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41558.018 CPM	Sr-90 Eff	Standard Aliquot
12	B1	2/3/2013 18:07	0.0093	5	94346	18869.200	0.4540	1mL
12	B2	2/3/2013 17:51	0.0296	5	91096	18219.200	0.4384	1mL
12	B3	2/3/2013 17:43	0.0574	5	91151	18230.200	0.4387	1mL
12	B4	2/3/2013 17:29	0.0818	5	86486	17297.200	0.4162	1mL
12	B5	2/3/2013 17:22	0.1157	5	83567	16713.400	0.4022	1mL
12	B6	2/3/2013 18:51	0.1470	5	82088	16417.600	0.3951	1mL
12	B7	2/3/2013 18:32	0.1871	5	82287	16457.400	0.3960	1mL
12	B8	2/3/2013 18:20	0.2469	5	79019	15803.800	0.3803	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4540	0.4534	0.14%
0.0296	0.4384	0.4427	-0.97%
0.0574	0.4387	0.4294	2.15%
0.0818	0.4162	0.4191	-0.70%
0.1157	0.4022	0.4069	-1.17%
0.1470	0.3951	0.3978	-0.68%
0.1871	0.3960	0.3891	1.79%
0.2469	0.3803	0.3824	-0.54%



Mass	Efficiency
0.0093	0.4540
0.0296	0.4384
0.0574	0.4387
0.0818	0.4162
0.1157	0.4022
0.1470	0.3951
0.1871	0.3960
0.2469	0.3803



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

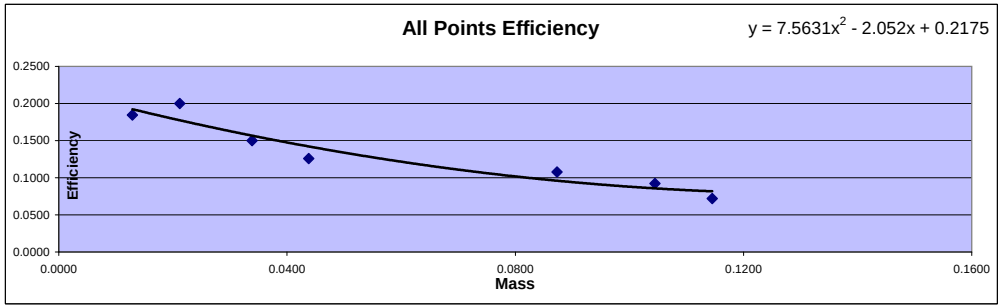
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	2/3/2013	
Elapsed Time:	1235.000	days
Half Life:	10409.625	days
Exponential Term:	0.921055374	
Corrected Activity:	20779.00924	dpm/mL
Decay Activity (Sr/Y-90)	41558.01848	dpm

Curve is for Gross Alpha

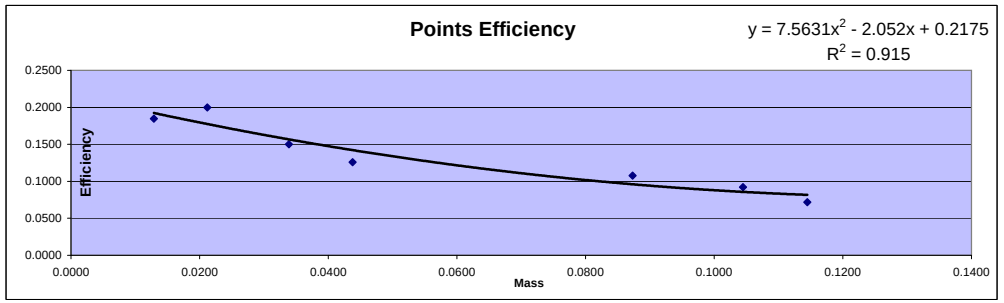
Purple 12

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
12	ICABT-51465;A1	1/17/2016 20:45	40	17522	438.050	2374.5	0.1845	1mL	0.0129
12	ICABT-51465;A2	1/17/2016 19:57	40	18995	474.875	2374.5	0.2000	1mL	0.0212
12	ICABT-51465;A3	1/17/2016 19:03	40	14246	356.150	2374.5	0.1500	1mL	0.0339
12	ICABT-51465;A4	1/17/2016 18:09	40	11963	299.075	2374.5	0.1260	1mL	0.0438
12	ICABT-51465;A6	1/17/2016 23:37	40	20439	510.975	4749.0	0.1076	2mL	0.0873
12	ICABT-51465;A7	1/17/2016 22:54	40	17502	437.550	4749.0	0.0921	2mL	0.1045
12	ICABT-51465;A8	1/17/2016 21:41	40	13667	341.675	4749.0	0.0719	2mL	0.1145

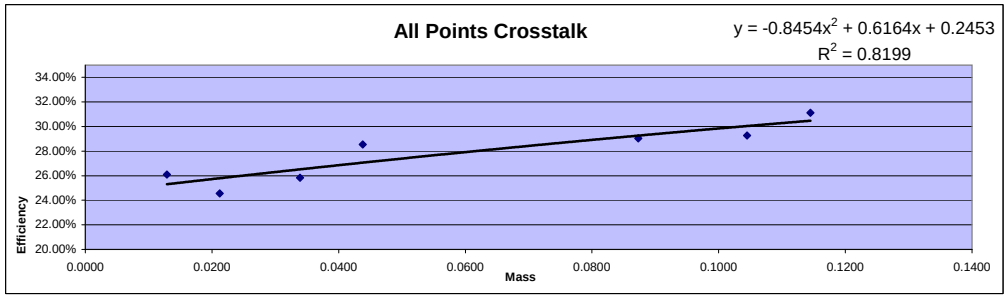
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1845	0.1923	-4.06%
0.0212	0.2000	0.1774	12.74%
0.0339	0.1500	0.1566	-4.24%
0.0438	0.1260	0.1421	-11.38%
0.0873	0.1076	0.0960	12.08%
0.1045	0.0921	0.0857	7.56%
0.1145	0.0719	0.0817	-11.94%



Mass	Efficiency
0.0129	0.1845
0.0212	0.2000
0.0339	0.1500
0.0438	0.1260
0.0873	0.1076
0.1045	0.0921
0.1145	0.0719



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
12	ICABT-51465;A1	0.0129	40.00	17522	6184	438.05	154.60	26.09%	Min
12	ICABT-51465;A2	0.0212	40.00	18995	6180	474.88	154.50	24.55%	24.55%
12	ICABT-51465;A3	0.0339	40.00	14246	4963	356.15	124.08	25.84%	
12	ICABT-51465;A4	0.0438	40.00	11963	4781	299.08	119.53	28.55%	Max
12	ICABT-51465;A6	0.0873	40.00	20439	8366	510.98	209.15	29.04%	
12	ICABT-51465;A7	0.1045	40.00	17502	7247	437.55	181.18	29.28%	Mean
12	ICABT-51465;A8	0.1145	40.00	13667	6172	341.68	154.30	31.11%	27.78%



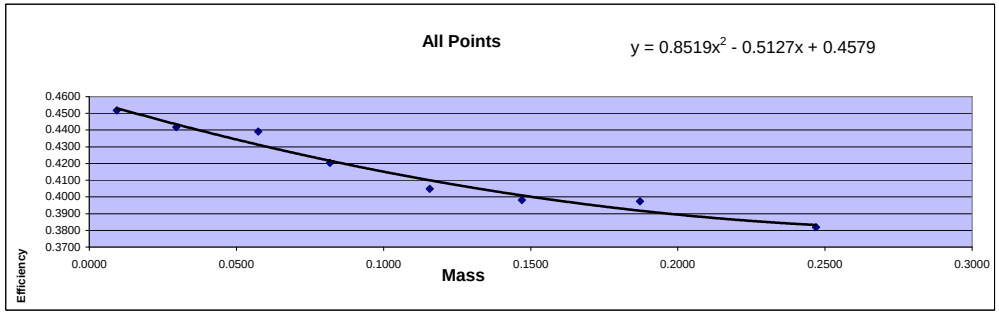
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

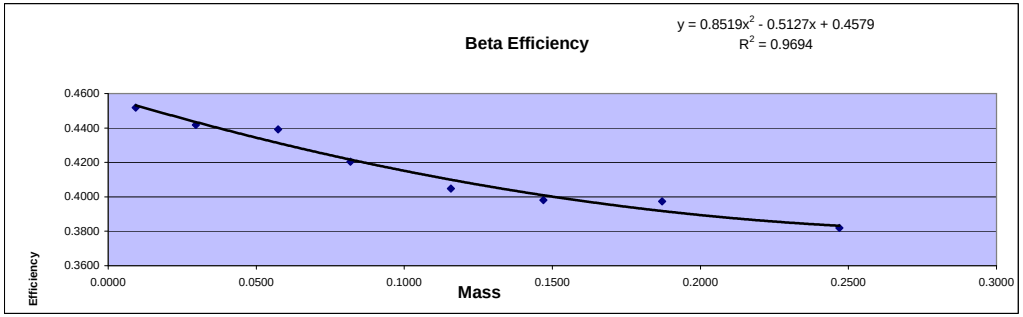
Purple 13

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41749.3966 CPM	Sr-90 Eff	Standard Aliquot
13	B1	11/26/2012 18:36	0.0093	5	94303	18860.600	0.4518	1mL
13	B2	11/26/2012 20:47	0.0296	5	92235	18447.000	0.4419	1mL
13	B3	11/26/2012 20:39	0.0574	5	91681	18336.200	0.4392	1mL
13	B4	11/26/2012 20:28	0.0818	5	87769	17553.800	0.4205	1mL
13	B5	11/26/2012 20:17	0.1157	5	84512	16902.400	0.4049	1mL
13	B6	11/26/2012 20:11	0.1470	5	83096	16619.200	0.3981	1mL
13	B7	11/26/2012 20:05	0.1871	5	82948	16589.600	0.3974	1mL
13	B8	11/26/2012 19:59	0.2469	5	79714	15942.800	0.3819	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4518	0.4532	-0.32%
0.0296	0.4419	0.4435	-0.37%
0.0574	0.4392	0.4313	1.84%
0.0818	0.4205	0.4217	-0.29%
0.1157	0.4049	0.4100	-1.25%
0.1470	0.3981	0.4009	-0.72%
0.1871	0.3974	0.3918	1.42%
0.2469	0.3819	0.3832	-0.36%



Mass	Efficiency
0.0093	0.4518
0.0296	0.4419
0.0574	0.4392
0.0818	0.4205
0.1157	0.4049
0.1470	0.3981
0.1871	0.3974
0.2469	0.3819



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

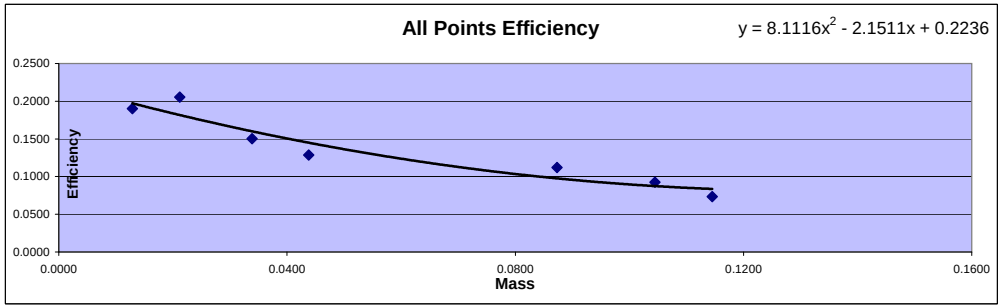
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	11/26/2012	
Elapsed Time:	1166.000	days
Half Life:	10409.625	days
Exponential Term:	0.925296911	
Corrected Activity:	20874.69832	dpm/mL
Decay Activity (Sr/Y-90)	41749.39663	dpm

Curve is for Gross Alpha

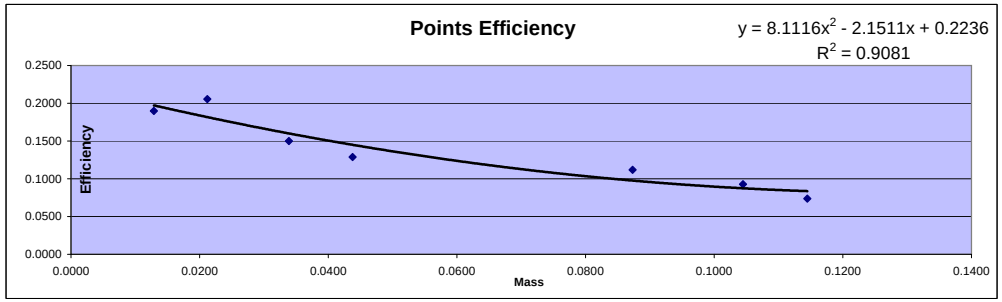
Purple 13

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
13	ICABT-51465;A1	1/17/2016 21:41	40	18046	451.150	2374.5	0.1900	1mL	0.0129
13	ICABT-51465;A2	1/17/2016 20:45	40	19532	488.300	2374.5	0.2056	1mL	0.0212
13	ICABT-51465;A3	1/17/2016 19:57	40	14266	356.650	2374.5	0.1502	1mL	0.0339
13	ICABT-51465;A4	1/17/2016 19:03	40	12223	305.575	2374.5	0.1287	1mL	0.0438
13	ICABT-51465;A6	1/17/2016 17:25	40	21259	531.475	4749.0	0.1119	2mL	0.0873
13	ICABT-51465;A7	1/17/2016 23:37	40	17596	439.900	4749.0	0.0926	2mL	0.1045
13	ICABT-51465;A8	1/17/2016 22:54	40	13973	349.325	4749.0	0.0736	2mL	0.1145

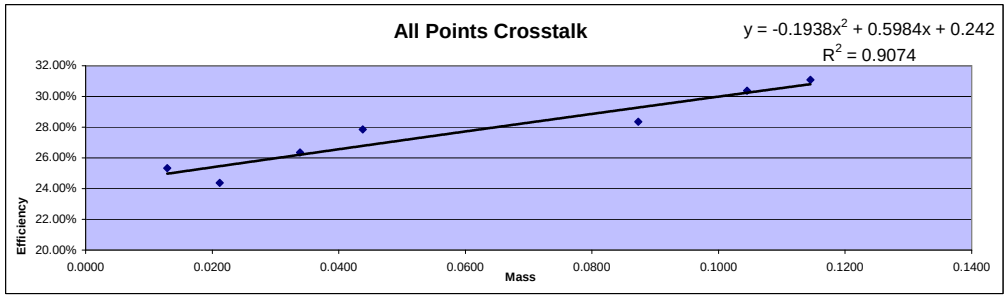
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1900	0.1972	-3.65%
0.0212	0.2056	0.1816	13.21%
0.0339	0.1502	0.1600	-6.12%
0.0438	0.1287	0.1449	-11.21%
0.0873	0.1119	0.0976	14.63%
0.1045	0.0926	0.0874	6.00%
0.1145	0.0736	0.0836	-12.06%



Mass	Efficiency
0.0129	0.1900
0.0212	0.2056
0.0339	0.1502
0.0438	0.1287
0.0873	0.1119
0.1045	0.0926
0.1145	0.0736



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
13	ICABT-51465;A1	0.0129	40.00	18046	6125	451.15	153.13	25.34%	Min
13	ICABT-51465;A2	0.0212	40.00	19532	6294	488.30	157.35	24.37%	24.37%
13	ICABT-51465;A3	0.0339	40.00	14266	5106	356.65	127.65	26.36%	
13	ICABT-51465;A4	0.0438	40.00	12223	4721	305.58	118.03	27.86%	Max
13	ICABT-51465;A6	0.0873	40.00	21259	8410	531.48	210.25	28.35%	
13	ICABT-51465;A7	0.1045	40.00	17596	7678	439.90	191.95	30.38%	Mean
13	ICABT-51465;A8	0.1145	40.00	13973	6304	349.33	157.60	31.09%	27.68%



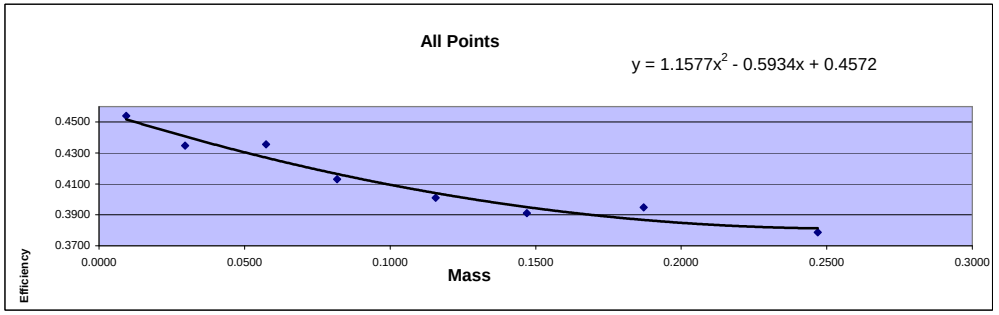
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

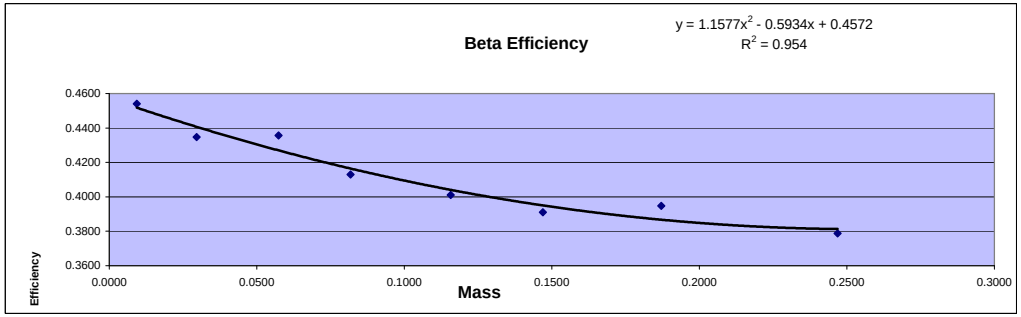
Purple 14

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41558.018 CPM	Sr-90 Eff	Standard Aliquot
14	B1	2/3/2013 18:32	0.0093	5	94341	18868.200	0.4540	1mL
14	B2	2/3/2013 18:20	0.0296	5	90347	18069.400	0.4348	1mL
14	B3	2/3/2013 18:07	0.0574	5	90513	18102.600	0.4356	1mL
14	B4	2/3/2013 17:51	0.0818	5	85815	17163.000	0.4130	1mL
14	B5	2/3/2013 17:43	0.1157	5	83321	16664.200	0.4010	1mL
14	B6	2/3/2013 17:29	0.1470	5	81270	16254.000	0.3911	1mL
14	B7	2/3/2013 17:22	0.1871	5	82021	16404.200	0.3947	1mL
14	B8	2/3/2013 18:51	0.2469	5	78698	15739.600	0.3787	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4540	0.4518	0.50%
0.0296	0.4348	0.4406	-1.33%
0.0574	0.4356	0.4270	2.02%
0.0818	0.4130	0.4164	-0.82%
0.1157	0.4010	0.4040	-0.76%
0.1470	0.3911	0.3950	-0.98%
0.1871	0.3947	0.3867	2.08%
0.2469	0.3787	0.3813	-0.66%



Mass	Efficiency
0.0093	0.4540
0.0296	0.4348
0.0574	0.4356
0.0818	0.4130
0.1157	0.4010
0.1470	0.3911
0.1871	0.3947
0.2469	0.3787



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

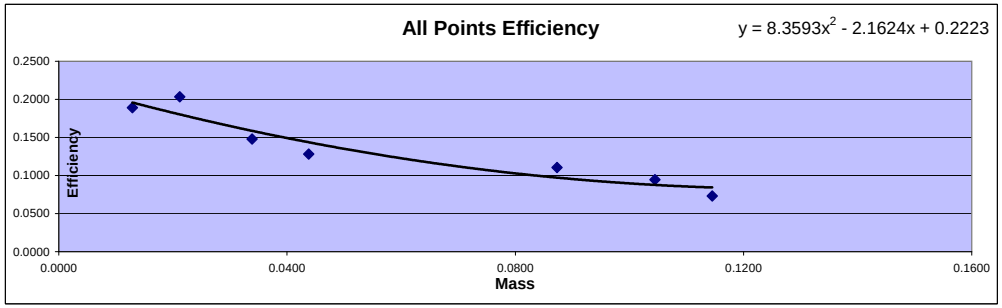
Initial Activity:	22560 dpm/mL
Reference Date:	9/17/2009
Count Date:	2/3/2013
Elapsed Time:	1235.000 days
Half Life:	10409.625 days
Exponential Term:	0.921055374
Corrected Activity:	20779.00924 dpm/mL
Decay Activity (Sr/Y-90)	41558.01848 dpm

Curve is for Gross Alpha

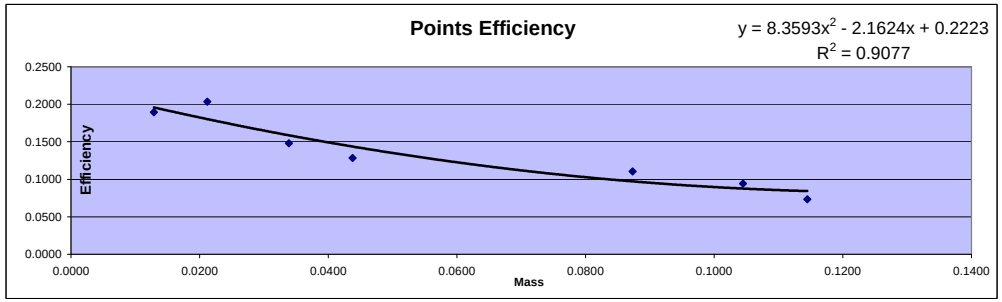
Purple 14

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
14	ICABT-51465;A1	1/17/2016 22:53	40	17971	449.275	2374.5	0.1892	1mL	0.0129
14	ICABT-51465;A2	1/17/2016 21:41	40	19335	483.375	2374.5	0.2036	1mL	0.0212
14	ICABT-51465;A3	1/17/2016 20:45	40	14060	351.500	2374.5	0.1480	1mL	0.0339
14	ICABT-51465;A4	1/17/2016 19:57	40	12186	304.650	2374.5	0.1283	1mL	0.0438
14	ICABT-51465;A6	1/17/2016 18:10	40	21021	525.525	4749.0	0.1107	2mL	0.0873
14	ICABT-51465;A7	1/17/2016 17:25	40	17940	448.500	4749.0	0.0944	2mL	0.1045
14	ICABT-51465;A8	1/17/2016 23:37	40	13925	348.125	4749.0	0.0733	2mL	0.1145

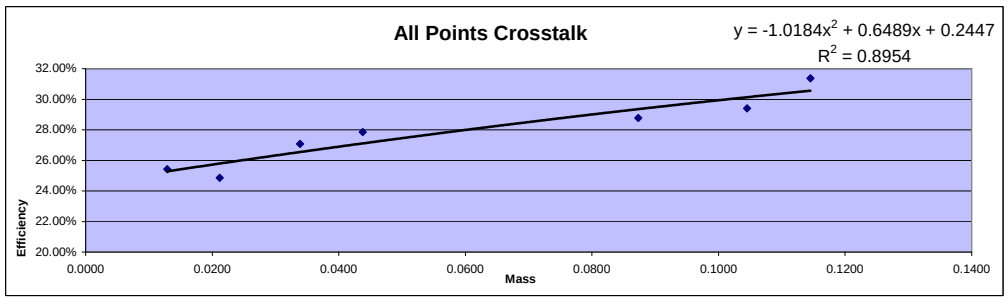
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1892	0.1958	-3.36%
0.0212	0.2036	0.1802	12.96%
0.0339	0.1480	0.1586	-6.66%
0.0438	0.1283	0.1436	-10.67%
0.0873	0.1107	0.0972	13.81%
0.1045	0.0944	0.0876	7.79%
0.1145	0.0733	0.0843	-13.04%



Mass	Efficiency
0.0129	0.1892
0.0212	0.2036
0.0339	0.1480
0.0438	0.1283
0.0873	0.1107
0.1045	0.0944
0.1145	0.0733



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
14	ICABT-51465;A1	0.0129	40.00	17971	6124	449.28	153.10	25.42%	Min
14	ICABT-51465;A2	0.0212	40.00	19335	6399	483.38	159.98	24.87%	24.87%
14	ICABT-51465;A3	0.0339	40.00	14060	5223	351.50	130.58	27.09%	
14	ICABT-51465;A4	0.0438	40.00	12186	4707	304.65	117.68	27.86%	Max
14	ICABT-51465;A6	0.0873	40.00	21021	8494	525.53	212.35	28.78%	
14	ICABT-51465;A7	0.1045	40.00	17940	7474	448.50	186.85	29.41%	Mean
14	ICABT-51465;A8	0.1145	40.00	13925	6366	348.13	159.15	31.37%	27.83%



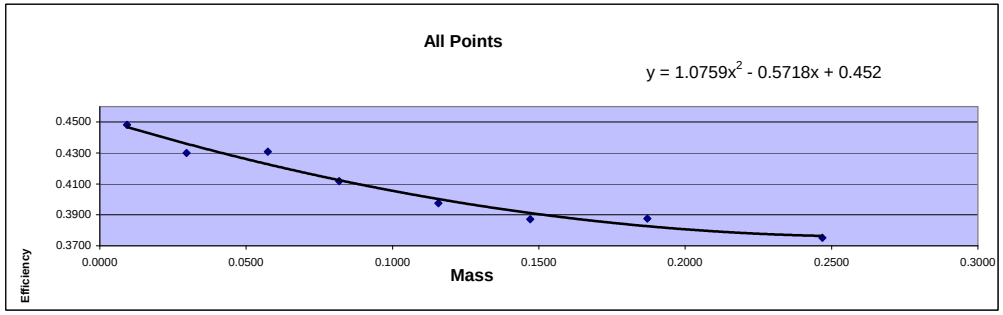
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Curve is for Gross Beta
Strontium 90
and
Total Strontium

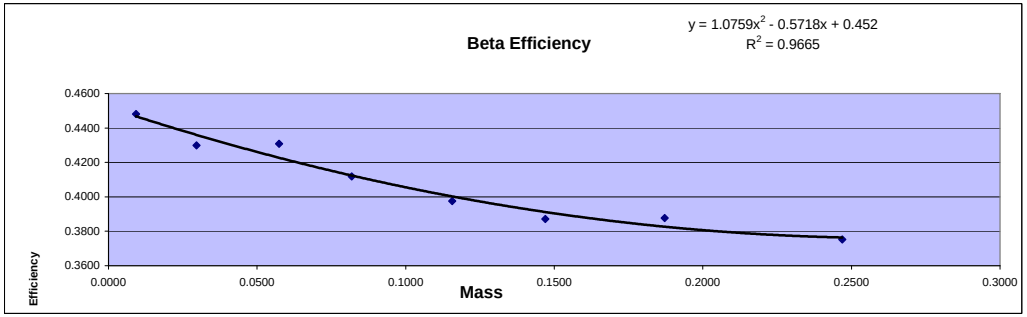
Purple 15

Detector ID	Std ID	Count Date	Sample Wt	Count Time	Beta Counts	DPM 41558.018 CPM	Sr-90 Eff	Standard Aliquot
15	B1	2/3/2013 18:51	0.0093	5	93123	18624.600	0.4482	1mL
15	B2	2/3/2013 18:32	0.0296	5	89332	17866.400	0.4299	1mL
15	B3	2/3/2013 18:20	0.0574	5	89532	17906.400	0.4309	1mL
15	B4	2/3/2013 18:07	0.0818	5	85577	17115.400	0.4118	1mL
15	B5	2/3/2013 17:52	0.1157	5	82599	16519.800	0.3975	1mL
15	B6	2/3/2013 17:43	0.1470	5	80437	16087.400	0.3871	1mL
15	B7	2/3/2013 17:29	0.1871	5	80553	16110.600	0.3877	1mL
15	B8	2/3/2013 17:22	0.2469	5	77978	15595.600	0.3753	1mL

Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0093	0.4482	0.4468	0.31%
0.0296	0.4299	0.4360	-1.40%
0.0574	0.4309	0.4227	1.93%
0.0818	0.4118	0.4124	-0.14%
0.1157	0.3975	0.4002	-0.68%
0.1470	0.3871	0.3912	-1.04%
0.1871	0.3877	0.3827	1.30%
0.2469	0.3753	0.3764	-0.30%



Mass	Efficiency
0.0093	0.4482
0.0296	0.4299
0.0574	0.4309
0.0818	0.4118
0.1157	0.3975
0.1470	0.3871
0.1871	0.3877
0.2469	0.3753



Standard ID
Strontium 90
Sr-90_00004 #6322
Cert# 80573-334 Ref. date 9/172009

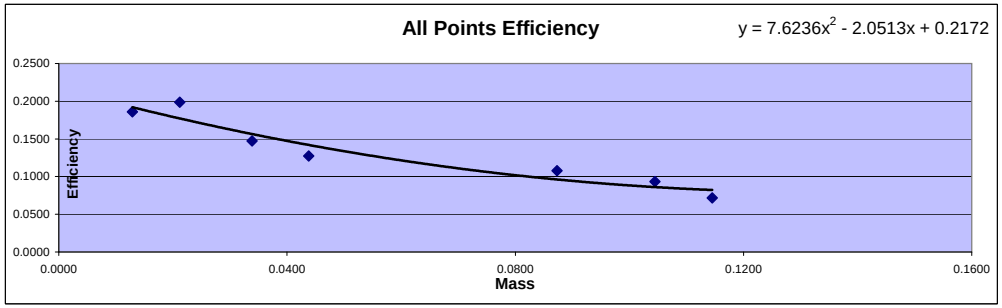
Initial Activity:	22560	dpm/mL
Reference Date:	9/17/2009	
Count Date:	2/3/2013	
Elapsed Time:	1235.000	days
Half Life:	10409.625	days
Exponential Term:	0.921055374	
Corrected Activity:	20779.00924	dpm/mL
Decay Activity (Sr/Y-90)	41558.01848	dpm

Curve is for Gross Alpha

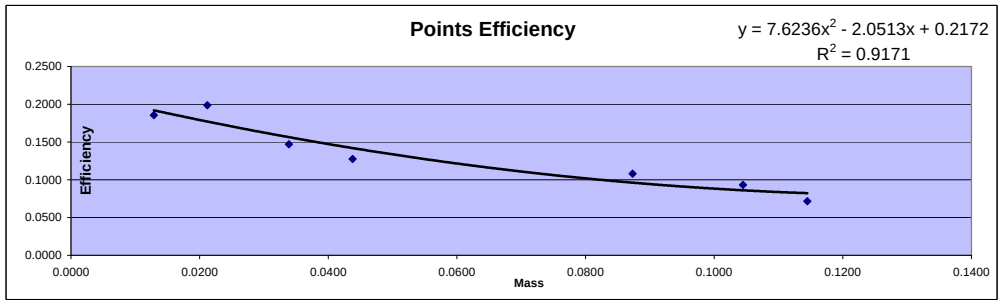
Purple 15

Detector ID	Sample ID	Count Date	Count Time	Alpha Counts	Net CPM	DPM	Th-230 Efficiency	Standard Aliquot	Mass
15	ICABT-51465;A1	1/17/2016 23:36	40	17638	440.950	2374.5	0.1857	1mL	0.0129
15	ICABT-51465;A2	1/17/2016 22:53	40	18870	471.750	2374.5	0.1987	1mL	0.0212
15	ICABT-51465;A3	1/17/2016 21:41	40	13982	349.550	2374.5	0.1472	1mL	0.0339
15	ICABT-51465;A4	1/17/2016 20:45	40	12111	302.775	2374.5	0.1275	1mL	0.0438
15	ICABT-51465;A6	1/17/2016 19:03	40	20515	512.875	4749.0	0.1080	2mL	0.0873
15	ICABT-51465;A7	1/17/2016 18:10	40	17727	443.175	4749.0	0.0933	2mL	0.1045
15	ICABT-51465;A8	1/17/2016 17:26	40	13611	340.275	4749.0	0.0717	2mL	0.1145

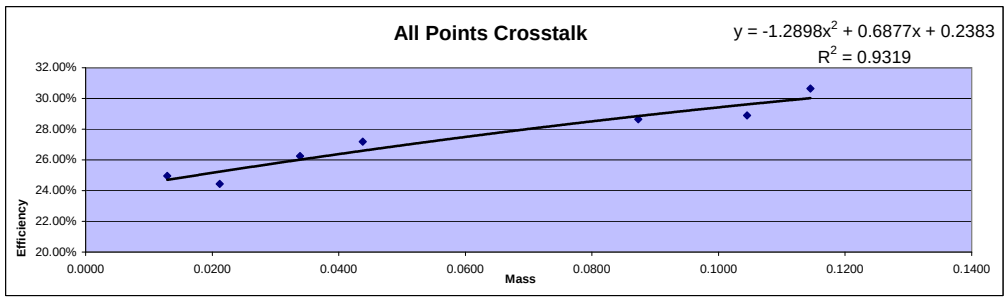
Mass	Measured Efficiency	Theoretical Efficiency	Percent Δ Efficiency
0.0129	0.1857	0.1920	-3.28%
0.0212	0.1987	0.1771	12.16%
0.0339	0.1472	0.1564	-5.89%
0.0438	0.1275	0.1420	-10.19%
0.0873	0.1080	0.0962	12.24%
0.1045	0.0933	0.0861	8.40%
0.1145	0.0717	0.0823	-12.91%



Mass	Efficiency
0.0129	0.1857
0.0212	0.1987
0.0339	0.1472
0.0438	0.1275
0.0873	0.1080
0.1045	0.0933
0.1145	0.0717



Detector ID	Sample ID	Mass	Count Time	Alpha Counts	Beta Counts	Alpha CPM	Beta CPM	% α into β	
15	ICABT-51465;A1	0.0129	40.00	17638	5867	440.95	146.68	24.96%	Min
15	ICABT-51465;A2	0.0212	40.00	18870	6103	471.75	152.58	24.44%	24.44%
15	ICABT-51465;A3	0.0339	40.00	13982	4975	349.55	124.38	26.24%	
15	ICABT-51465;A4	0.0438	40.00	12111	4524	302.78	113.10	27.20%	Max
15	ICABT-51465;A6	0.0873	40.00	20515	8238	512.88	205.95	28.65%	
15	ICABT-51465;A7	0.1045	40.00	17727	7203	443.18	180.08	28.89%	Mean
15	ICABT-51465;A8	0.1145	40.00	13611	6016	340.28	150.40	30.65%	27.29%



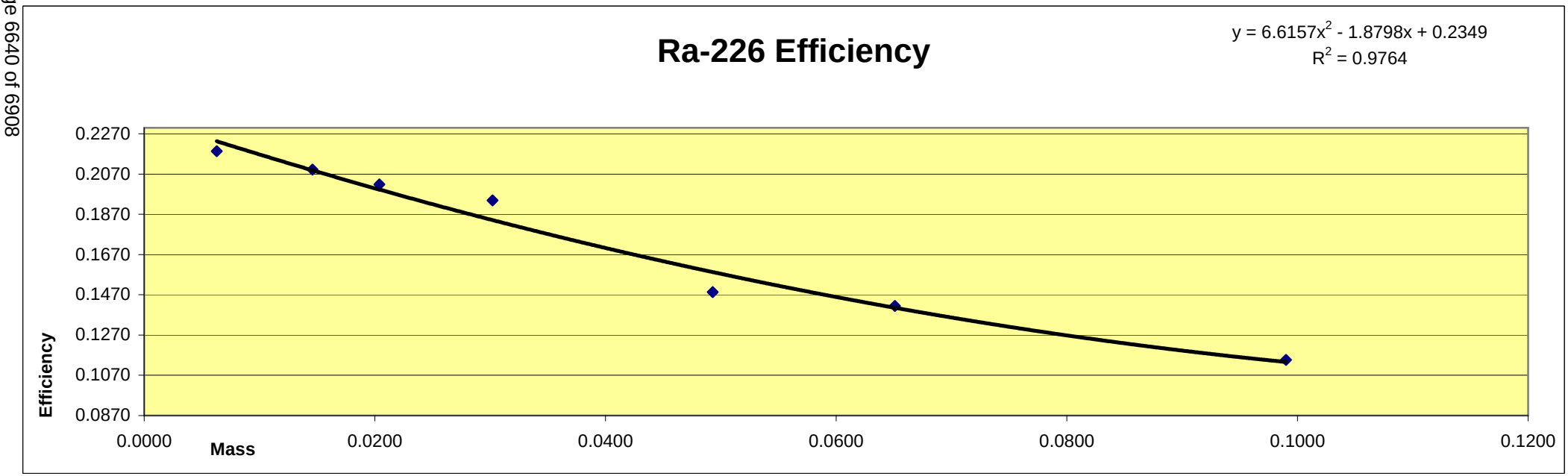
Standard ID
Thorium-230
Th-230_00016
Container#: 51465
Cert #: 92523 Ref. date 11/29/2012
Activity 2374.5 dpm/mL

Ra-226 Calibrations

Ra-226 Calibration 2017

Protean 10

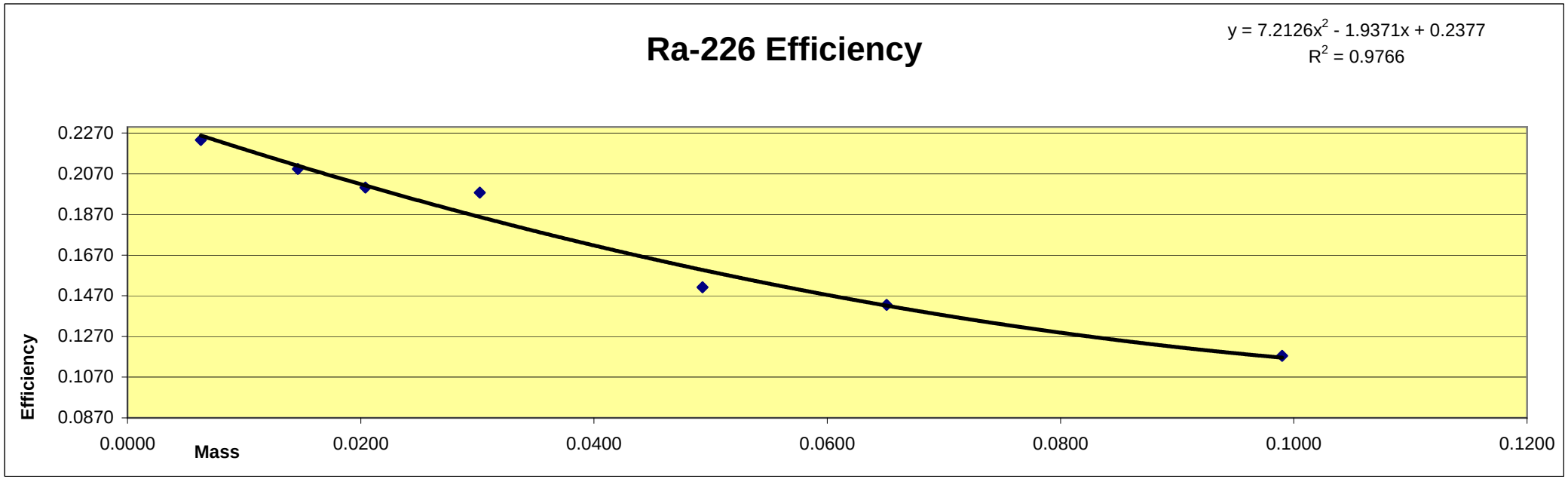
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	20.00	2/13/2017 22:15	17605	880.2500	2/13/2017 13:30	1.1921	0.4487	1645.5921	7534.6	0.2184
R3	0.0146	20.00	2/13/2017 21:52	25884	1294.2000	2/13/2017 13:30	1.1839	0.6933	1576.8103	7534.6	0.2093
R4	0.0204	20.00	2/14/2017 0:42	27488	1374.4000	2/13/2017 13:30	1.2435	0.7265	1521.3894	7534.6	0.2019
R5	0.0302	20.00	2/14/2017 0:18	31058	1552.9000	2/13/2017 13:30	1.2352	0.8604	1461.1609	7534.6	0.1939
R6	0.0493	20.00	2/13/2017 23:50	25657	1282.8500	2/13/2017 13:30	1.2252	0.9364	1118.1692	7534.6	0.1484
R7	0.0651	20.00	2/13/2017 23:22	24032	1201.6000	2/13/2017 13:30	1.2155	0.9274	1065.9840	7534.6	0.1415
R8	0.0990	20.00	2/13/2017 23:00	19621	981.0500	2/13/2017 13:30	1.2078	0.9402	863.9591	7534.6	0.1147



Ra-226 Calibration 2017

Protean 11

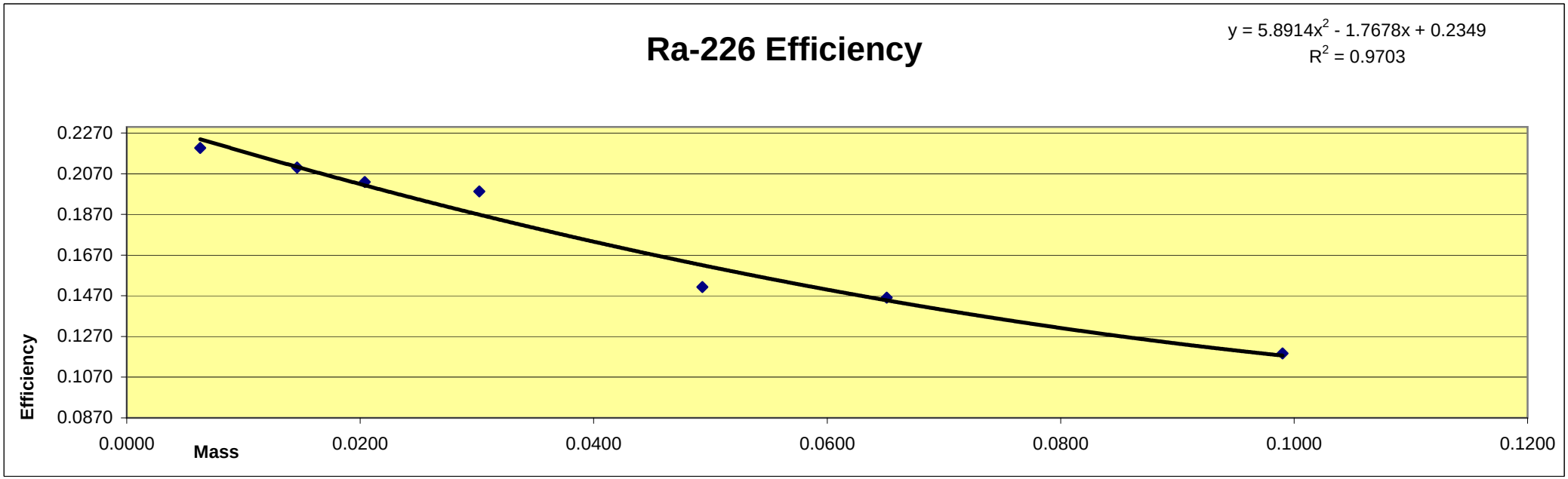
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	20.00	2/13/2017 22:37	18138	906.9000	2/13/2017 13:30	1.1997	0.4487	1684.6223	7534.6	0.2236
R3	0.0146	20.00	2/13/2017 22:15	26079	1303.9500	2/13/2017 13:30	1.1921	0.6933	1577.7927	7534.6	0.2094
R4	0.0204	20.00	2/13/2017 21:52	25947	1297.3500	2/13/2017 13:30	1.1840	0.7265	1508.2901	7534.6	0.2002
R5	0.0302	20.00	2/14/2017 0:42	31879	1593.9500	2/13/2017 13:30	1.2435	0.8604	1489.8107	7534.6	0.1977
R6	0.0493	20.00	2/14/2017 0:18	26361	1318.0500	2/13/2017 13:30	1.2352	0.9364	1139.5550	7534.6	0.1512
R7	0.0651	20.00	2/13/2017 23:50	24397	1219.8500	2/13/2017 13:30	1.2253	0.9274	1073.5832	7534.6	0.1425
R8	0.0990	20.00	2/13/2017 23:22	20243	1012.1500	2/13/2017 13:30	1.2155	0.9402	885.6592	7534.6	0.1175



Ra-226 Calibration 2017

Protean 13

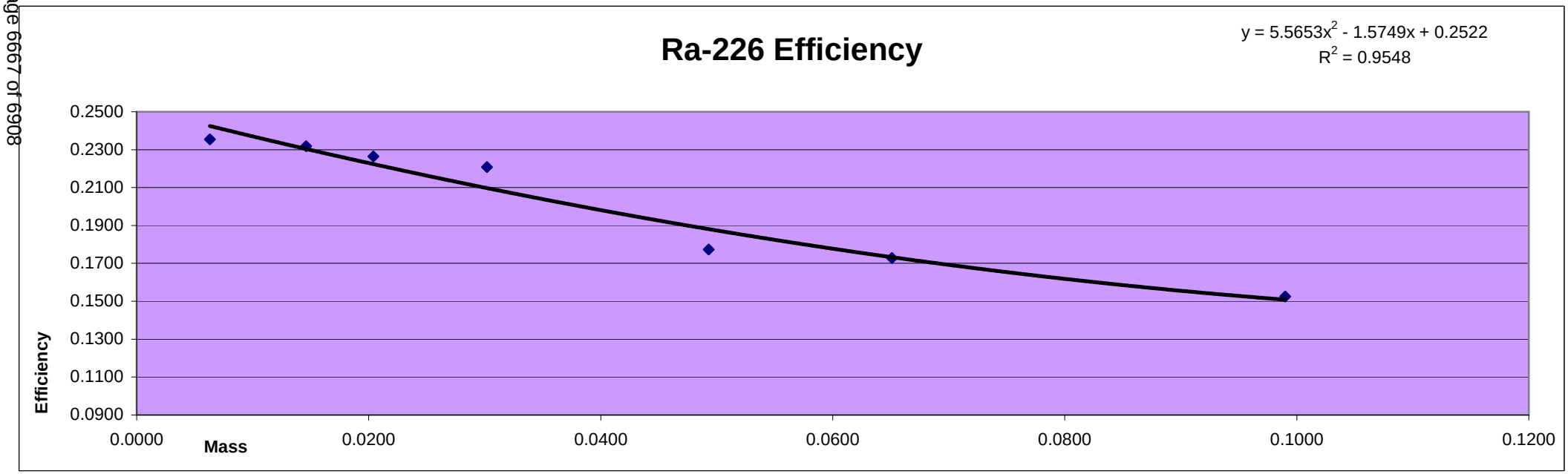
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	20.00	2/13/2017 23:21	18052	902.6000	2/13/2017 13:30	1.2154	0.4487	1655.0404	7534.6	0.2197
R3	0.0146	20.00	2/13/2017 22:59	26507	1325.3500	2/13/2017 13:30	1.2077	0.6933	1582.9841	7534.6	0.2101
R4	0.0204	20.00	2/13/2017 22:37	26656	1332.8000	2/13/2017 13:30	1.1998	0.7265	1529.0900	7534.6	0.2029
R5	0.0302	20.00	2/13/2017 22:15	30649	1532.4500	2/13/2017 13:30	1.1922	0.8604	1494.0113	7534.6	0.1983
R6	0.0493	20.00	2/13/2017 21:52	25286	1264.3000	2/13/2017 13:30	1.1840	0.9364	1140.3832	7534.6	0.1514
R7	0.0651	20.00	2/14/2017 0:42	25380	1269.0000	2/13/2017 13:30	1.2435	0.9274	1100.4305	7534.6	0.1461
R8	0.0990	20.00	2/14/2017 0:18	20763	1038.1500	2/13/2017 13:30	1.2353	0.9402	893.9071	7534.6	0.1186



Ra-226 Calibration 2017

Purple 0

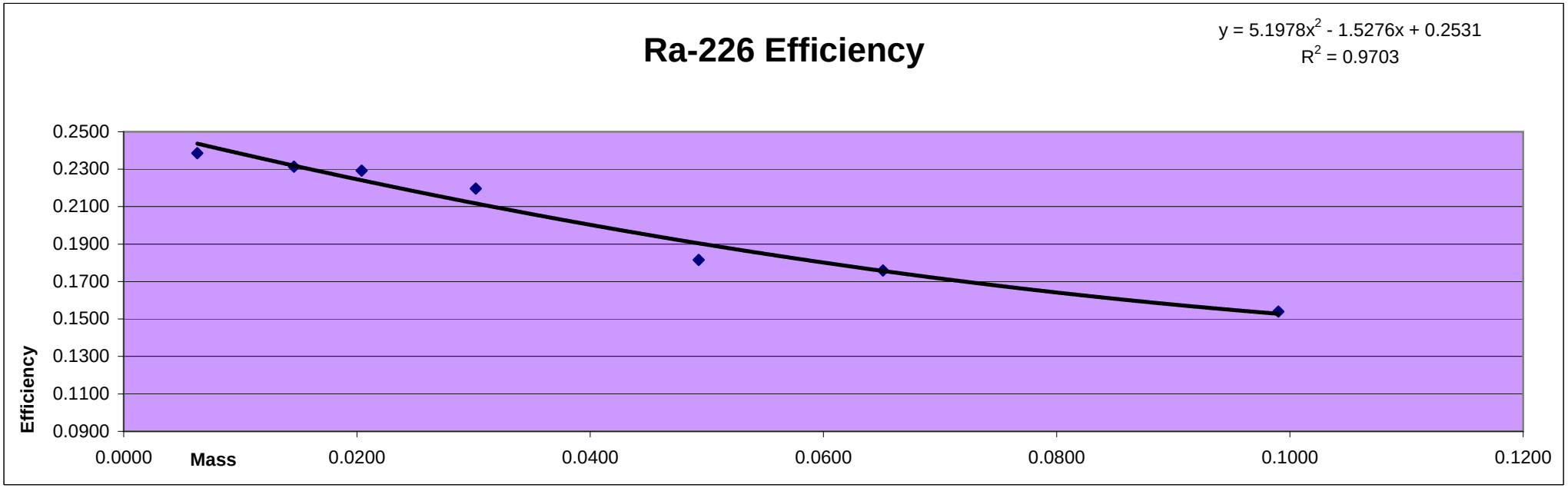
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 1:15	28735	1915.6667	2/13/2017 13:30	2.4064	0.4487	1774.0852	7534.6	0.2355
R3	0.0146	15.00	2/17/2017 3:21	44155	2943.6667	2/13/2017 13:30	2.4314	0.6933	1746.3557	7534.6	0.2318
R4	0.0204	15.00	2/17/2017 3:04	45140	3009.3333	2/13/2017 13:30	2.4280	0.7265	1706.0163	7534.6	0.2264
R5	0.0302	15.00	2/17/2017 2:46	52073	3471.5333	2/13/2017 13:30	2.4245	0.8604	1664.1494	7534.6	0.2209
R6	0.0493	15.00	2/17/2017 2:29	45436	3029.0667	2/13/2017 13:30	2.4212	0.9364	1336.1015	7534.6	0.1773
R7	0.0651	15.00	2/17/2017 2:12	43806	2920.4000	2/13/2017 13:30	2.4178	0.9274	1302.5167	7534.6	0.1729
R8	0.0990	15.00	2/17/2017 1:55	39113	2607.5333	2/13/2017 13:30	2.4144	0.9402	1148.7426	7534.6	0.1525



Ra-226 Calibration 2017

Purple 1

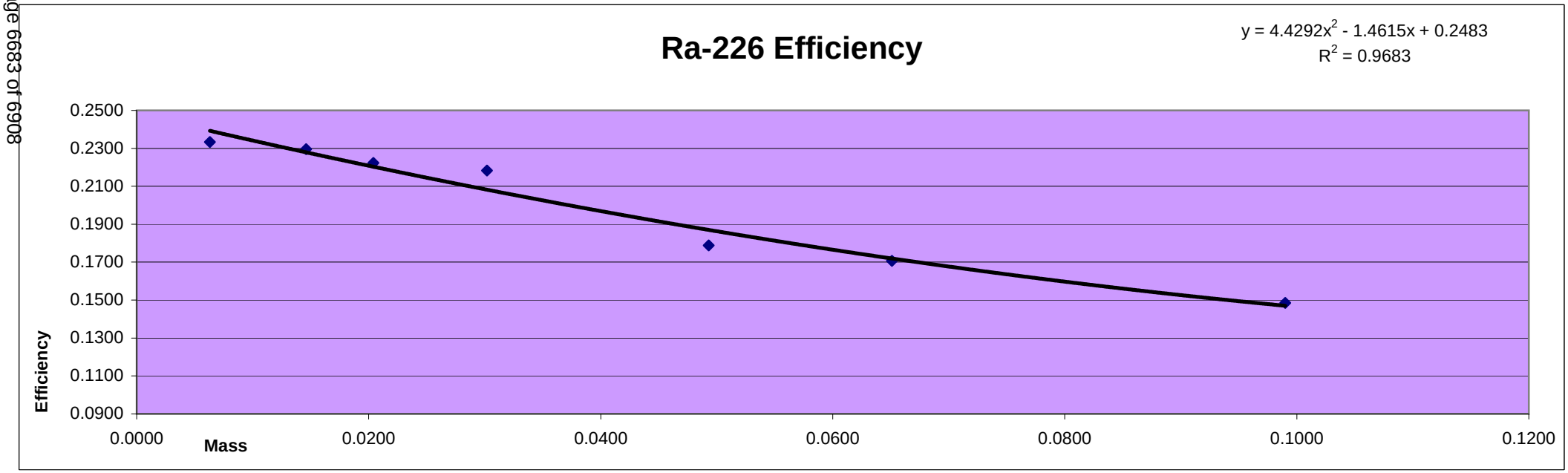
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 1:32	29149	1943.2667	2/13/2017 13:30	2.4098	0.4487	1797.0914	7534.6	0.2385
R3	0.0146	15.00	2/17/2017 1:15	43631	2908.7333	2/13/2017 13:30	2.4064	0.6933	1743.5487	7534.6	0.2314
R4	0.0204	15.00	2/17/2017 3:21	45777	3051.8000	2/13/2017 13:30	2.4314	0.7265	1727.6601	7534.6	0.2293
R5	0.0302	15.00	2/17/2017 3:04	51860	3457.3333	2/13/2017 13:30	2.4280	0.8604	1654.9625	7534.6	0.2196
R6	0.0493	15.00	2/17/2017 2:46	46596	3106.4000	2/13/2017 13:30	2.4245	0.9364	1368.2942	7534.6	0.1816
R7	0.0651	15.00	2/17/2017 2:29	44635	2975.6667	2/13/2017 13:30	2.4212	0.9274	1325.3083	7534.6	0.1759
R8	0.0990	15.00	2/17/2017 2:12	39561	2637.4000	2/13/2017 13:30	2.4178	0.9402	1160.2523	7534.6	0.1540



Ra-226 Calibration 2017

Purple 2

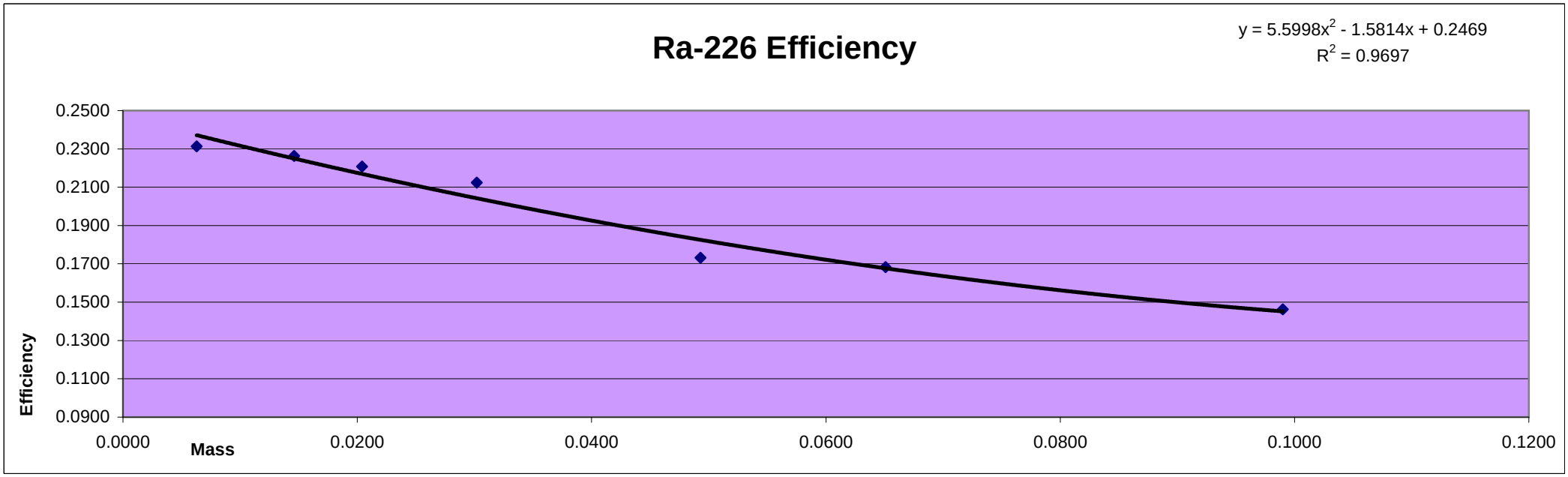
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 1:55	28571	1904.7333	2/13/2017 13:30	2.4143	0.4487	1758.2118	7534.6	0.2334
R3	0.0146	15.00	2/17/2017 1:32	43359	2890.6000	2/13/2017 13:30	2.4098	0.6933	1730.2277	7534.6	0.2296
R4	0.0204	15.00	2/17/2017 1:15	43935	2929.0000	2/13/2017 13:30	2.4064	0.7265	1675.3605	7534.6	0.2224
R5	0.0302	15.00	2/17/2017 3:21	51606	3440.4000	2/13/2017 13:30	2.4314	0.8604	1644.5407	7534.6	0.2183
R6	0.0493	15.00	2/17/2017 3:04	45937	3062.4667	2/13/2017 13:30	2.4280	0.9364	1347.0038	7534.6	0.1788
R7	0.0651	15.00	2/17/2017 2:46	43380	2892.0000	2/13/2017 13:30	2.4246	0.9274	1286.2412	7534.6	0.1707
R8	0.0990	15.00	2/17/2017 2:29	38217	2547.8000	2/13/2017 13:30	2.4212	0.9402	1119.2665	7534.6	0.1486



Ra-226 Calibration 2017

Purple 3

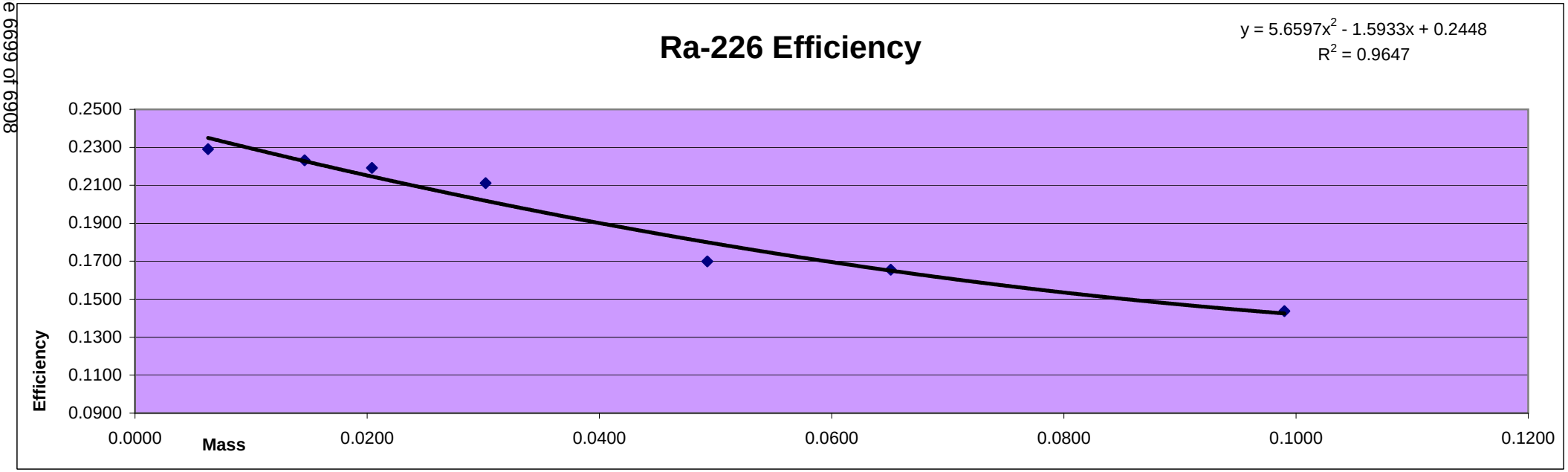
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 2:12	28364	1890.9333	2/13/2017 13:30	2.4177	0.4487	1742.9902	7534.6	0.2313
R3	0.0146	15.00	2/17/2017 1:55	42818	2854.5333	2/13/2017 13:30	2.4143	0.6933	1705.4941	7534.6	0.2264
R4	0.0204	15.00	2/17/2017 1:32	43697	2913.1333	2/13/2017 13:30	2.4099	0.7265	1663.9273	7534.6	0.2208
R5	0.0302	15.00	2/17/2017 1:15	49702	3313.4667	2/13/2017 13:30	2.4064	0.8604	1600.3151	7534.6	0.2124
R6	0.0493	15.00	2/17/2017 3:21	44561	2970.7333	2/13/2017 13:30	2.4314	0.9364	1304.8215	7534.6	0.1732
R7	0.0651	15.00	2/17/2017 3:04	42836	2855.7333	2/13/2017 13:30	2.4280	0.9274	1268.2876	7534.6	0.1683
R8	0.0990	15.00	2/17/2017 2:46	37694	2512.9333	2/13/2017 13:30	2.4246	0.9402	1102.4036	7534.6	0.1463



Ra-226 Calibration 2017

Purple 4

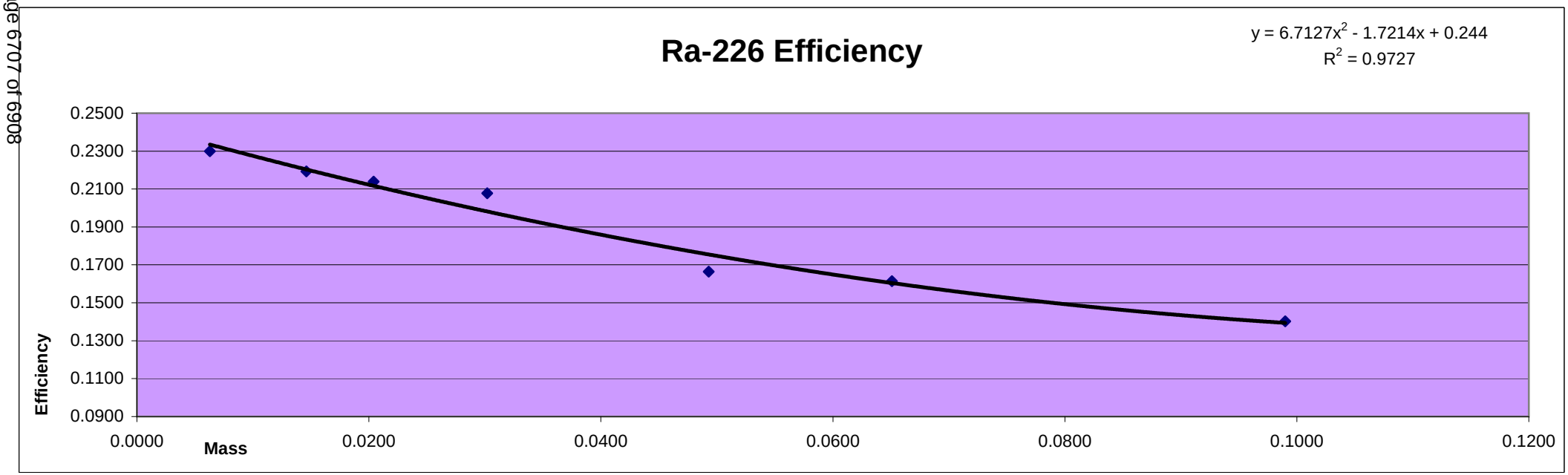
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 2:29	28129	1875.2667	2/13/2017 13:30	2.4211	0.4487	1726.1274	7534.6	0.2291
R3	0.0146	15.00	2/17/2017 2:12	42276	2818.4000	2/13/2017 13:30	2.4177	0.6933	1681.5054	7534.6	0.2232
R4	0.0204	15.00	2/17/2017 1:55	43445	2896.3333	2/13/2017 13:30	2.4143	0.7265	1651.2885	7534.6	0.2192
R5	0.0302	15.00	2/17/2017 1:32	49478	3298.5333	2/13/2017 13:30	2.4099	0.8604	1590.8465	7534.6	0.2111
R6	0.0493	15.00	2/17/2017 1:15	43282	2885.4667	2/13/2017 13:30	2.4065	0.9364	1280.5309	7534.6	0.1700
R7	0.0651	15.00	2/17/2017 3:21	42177	2811.8000	2/13/2017 13:30	2.4315	0.9274	1247.0214	7534.6	0.1655
R8	0.0990	15.00	2/17/2017 3:04	37097	2473.1333	2/13/2017 13:30	2.4281	0.9402	1083.3858	7534.6	0.1438



Ra-226 Calibration 2017

Purple 5

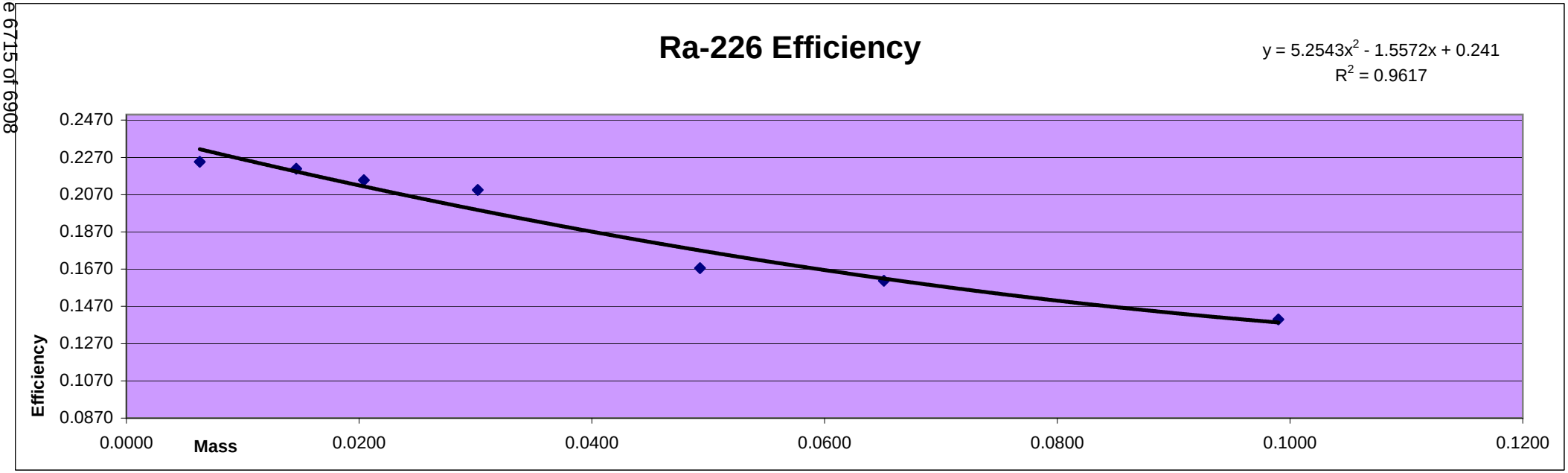
Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/17/2017 2:46	28275	1885.0000	2/13/2017 13:30	2.4245	0.4487	1732.6760	7534.6	0.2300
R3	0.0146	15.00	2/17/2017 2:29	41597	2773.1333	2/13/2017 13:30	2.4211	0.6933	1652.1827	7534.6	0.2193
R4	0.0204	15.00	2/17/2017 2:12	42455	2830.3333	2/13/2017 13:30	2.4177	0.7265	1611.3599	7534.6	0.2139
R5	0.0302	15.00	2/17/2017 1:55	48792	3252.8000	2/13/2017 13:30	2.4143	0.8604	1565.9042	7534.6	0.2078
R6	0.0493	15.00	2/17/2017 1:33	42429	2828.6000	2/13/2017 13:30	2.4099	0.9364	1253.5164	7534.6	0.1664
R7	0.0651	15.00	2/17/2017 1:16	40712	2714.1333	2/13/2017 13:30	2.4065	0.9274	1216.2028	7534.6	0.1614
R8	0.0990	15.00	2/17/2017 3:21	36246	2416.4000	2/13/2017 13:30	2.4315	0.9402	1057.0459	7534.6	0.1403



Ra-226 Calibration 2017

Purple 23

Std #	Mass	Count Time	Sample Time	Alpha Counts	CPM	Sep Time	Ingrowth	Recovery	Adj CPM	DPM	Efficiency
R2	0.0063	15.00	2/16/2017 22:07	26981	1798.7333	2/13/2017 13:30	2.3683	0.4487	1692.6218	7534.6	0.2246
R3	0.0146	15.00	2/16/2017 21:37	40900	2726.6667	2/13/2017 13:30	2.3621	0.6933	1665.0913	7534.6	0.2210
R4	0.0204	15.00	2/16/2017 21:20	41605	2773.6667	2/13/2017 13:30	2.3586	0.7265	1618.6906	7534.6	0.2148
R5	0.0302	15.00	2/16/2017 13:00	45876	3058.4000	2/13/2017 13:30	2.2520	0.8604	1578.4554	7534.6	0.2095
R6	0.0493	15.00	2/16/2017 12:12	39743	2649.5333	2/13/2017 13:30	2.2412	0.9364	1262.5281	7534.6	0.1676
R7	0.0651	15.00	2/16/2017 11:52	37698	2513.2000	2/13/2017 13:30	2.2370	0.9274	1211.5088	7534.6	0.1608
R8	0.0990	15.00	2/16/2017 11:30	33215	2214.3333	2/13/2017 13:30	2.2320	0.9402	1055.2095	7534.6	0.1400



Alpha Beta Calibration Verifications

ICV is for Gross Alpha

Blue - Alpha ICV 2017				
	Low Mass	Medium Mass	High Mass	Mean
Detector	Recovery	Recovery	Recovery	Recovery
0	107.30%	103.06%	102.84%	102.24%

Standard ID

Thorium-230
Th-230_00019
Container#: 181198
Ref. date 08/08/2013
Activity: 5.0185 pCi/mL

Prep Batch: 281207

	Low Mass	Medium Mass	High Mass
	0.0161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
0	5.39E+00	5.17E+00	5.16E+00

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Blue - Beta ICV 2017				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
0	98.34%	96.97%	97.96%	97.76%

Beta Activity 1815.077 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Count Date:	3/31/2017		(or date at which you wish to determine activity)
Elapsed Time:	1583.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.899957764		
Corrected Activity:	2014.735445	dpm	
Decay Activity (Sr/Y-90)	4029.47089	dpm	1815.077 pCi

Prep Batch: 239589

Detector	Beta 1	Activity	Units
0	Low Mass	1.785E+03	pCi/mL

Beta 2	Activity	Units
Medium Mass	1.760E+03	pCi/mL

Beta 3	Activity	Units
High Mass	1.778E+03	pCi/mL

ICV is for Gross Alpha

Protean Alpha ICV - 2015				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
3	102.50%	86.14%	87.36%	92.00%

Standard ID

Thorium-230

Th-230_00019 #181198

Cert # 92776 Ref. date 08/08/2013

Activity 5.0185 pCi/mL

Prep Batch: M153001

	Low Mass	Medium Mass	High Mass
	0.142g	0.0512g	0.0747g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
3	5.144	4.323	4.384

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Protean Beta ICV - 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
3	99.35%	97.05%	99.74%	98.72%

Beta Activity 2000.929 pCi

Beta Activity 2000.263 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	3/28/2013		(or date at which you wish to determine activity)
Elapsed Time:	119.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.992107441		
Corrected Activity:	2221.030929	dpm	
Decay Activity (Sr/Y-90)	4442.061857	dpm	2000.929 pCi

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	4/2/2013		(or date at which you wish to determine activity)
Elapsed Time:	124.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.991777188		
Corrected Activity:	2220.291591	dpm	
Decay Activity (Sr/Y-90)	4440.583182	dpm	2000.263 pCi

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Purple Beta ICV 2013						
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery	Beta Activity	2007.869 pCi
14	98.41%	97.72%	98.96%	98.36%		

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	2/4/2013		(or date at which you wish to determine activity)
Elapsed Time:	67.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.995548598		
Corrected Activity:	2228.734647	dpm	
Decay Activity (Sr/Y-90)	4457.469295	dpm	2007.869 pCi

ICV is for Gross Alpha

Purple Alpha ICV 2016				
	Low Mass	Medium Mass	High Mass	Mean
Detector	Recovery	Recovery	Recovery	Recovery
14	95.94%	96.25%	97.88%	102.24%

Standard ID

Thorium-230
Th-230_00019
Container#: 181198
Ref. date 08/08/2013
Activity: 5.0185 pCi/mL

Prep Batch: M163021
Date counted: 1/19/16

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
14	5.23E+00	5.21E+00	5.13E+00

ICV is for Gross Beta
Strontium 90
and
Total Strontium

Purple Beta ICV 2013				
Detector	Low Mass Recovery	Medium Mass Recovery	High Mass Recovery	Mean Recovery
15	97.86%	99.96%	98.76%	98.86%

Beta Activity 2007.869 pCi

Standard ID

Strontium 90
Sr-90_00018 #51512
Cert# 92352 Ref. date 11/29/12

Initial Activity:	2238.7	dpm	
Reference Date:	11/29/2012		
Current Date:	2/4/2013		(or date at which you wish to determine activity)
Elapsed Time:	67.000	days	
Half Life:	10409.625	days	
Exponential Term:	0.995548598		
Corrected Activity:	2228.734647	dpm	
Decay Activity (Sr/Y-90)	4457.469295	dpm	2007.869 pCi

ICV is for Gross Alpha

Purple Alpha ICV 2016				
	Low Mass	Medium Mass	High Mass	Mean
Detector	Recovery	Recovery	Recovery	Recovery
15	97.83%	97.24%	99.93%	102.24%

Standard ID

Thorium-230
Th-230_00019
Container#: 181198
Ref. date 08/08/2013
Activity: 5.0185 pCi/mL

Prep Batch: M163021
Date counted: 1/19/16

	Low Mass	Medium Mass	High Mass
	0.161g	0.0552g	0.0777g
Detector	Activity (pCi/mL)	Activity (pCi/mL)	Activity (pCi/mL)
15	5.13E+00	5.16E+00	5.02E+00

Ra-226 Calibration Verifications

Ra226 ICV

Protean Ra-226 ICV - 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
13	92.00%	102.37%	92.89%	95.75%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
13	Low Mass (0.0133g)	3.485E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.878E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.519E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
2	87.27%	96.09%	87.98%	90.45%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
2	Low Mass (0.0133g)	3.306E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.640E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.333E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
3	85.92%	95.72%	88.17%	89.94%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
3	Low Mass (0.0133g)	3.255E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.626E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.340E+03	pCi/mL

Ra-226 ICV

Purple Ra-226 ICV 2017				
	Low	Medium	High	Mean
	Mass	Mass	Mass	Recovery
Detector	Recovery	Recovery	Recovery	
4	85.77%	94.90%	88.01%	89.56%

Standard ID

Ra-226
Ra-226_00025 #1063071
Cert # 104858
Added: 1mL
Activity 3788.19152 pCi/mL

Prep Batch: 291970

Detector	1	Activity	Units
4	Low Mass (0.0133g)	3.249E+03	pCi/mL

2	Activity	Units
Medium Mass (0.0276g)	3.595E+03	pCi/mL

3	Activity	Units
High Mass (0.0487g)	3.334E+03	pCi/mL

VOA Calibration Calculations:

Initial Calibration 6/15/2018
Instrument A3UX11

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
1	34562	889482	10	0.3886	0.3886
2	68537	912909	10	0.3754	0.3754
5	166368	904600	10	0.3678	0.3678
10	328819	951416	10	0.3456	0.3456
20	723721	983097	10	0.3681	0.3681
40	1493589	1049146	10	0.3559	0.3559
			Average	0.3669	0.3669
			Standard Deviation	0.0150	
			RSD	0.0407	
			%RSD	4.0748	4.1

Continuing Calibration 07/19/2018@ 10:48
Instrument A3UX11

Trichloroethene

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
10	217074	683737	10	0.3175	-13.469	0.3175	-13.5

MSA
SDG 240-98038-1

SAMPLE IDENTIFICATION	DMW-5S-071018
COMPOUND	Trichloroethene
COMPOUND AREA	402525
INTERNAL STANDARD AMOUNT (ng)	10
DILUTION FACTOR	1000
INTERNAL STANDARD AREA	582475
AVERAGE RRF	0.3669
VOLUME OF SAMPLE (ml)	5
VOLUME EXTRACT (ml)	5

CONCENTRATION = 18835.10 ug/L

SVOA Calibration Calculations:

Initial Calibration 7/9/2018
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	Reported RRF
50	4338	119502	400	0.2904	0.2904
100	9009	130745	400	0.2756	0.2756
200	19439	129205	400	0.3009	0.3009
500	38430	131749	400	0.2334	0.2334
1000	84579	134836	400	0.2509	0.2509
1500	122610	126068	400	0.2594	0.2594
2000	219917	134240	400	0.3276	0.3276
2500	278716	136711	400	0.3262	0.3262
			Average	0.28305	0.283
			Standard Deviation	0.0345	
			RSD	0.1220	
			%RSD	12.19690	12.2

Continuing Calibration 07/11/2018 @ 6:52
Instrument A4AG2

1,4-Dioxane

Analyte Concentration	Analyte Response	Internal Standard Response	Internal Standard Amount	RRF	%D	Reported RRF	Reported %D
1000	65275	114901	400	0.2272	-19.7035	0.2272	-19.7

MSA
SDG 240-98038-1

Sample Identification	MSA-MW-53I-070218	
Compound	1,4-Dioxane	
Compound Area	80307	
Internal Standard Amount (ng)	400	
Dilution Factor	10	
Internal Standard Area	94280	
Average RRF	0.283	
Volume of Sample (ml)	250	
Volume Extract (ml)	5	
Concentration	240.79	ug/L

RSK175 Calibration Calculations:

Initial Calibration	6/18/2018
Instrument	ZPID

Methane

Analyte Concentration	Analyte Response	RRF	Reported RRF
0.285	2077	7287.7193	7282.2
2	12478	6239.0000	6249.9
9.98	58789	5890.6814	5889.1
99.8	576004	5771.5832	5770.1
428	2378625	5557.5350	5561.5
4277	23578965	5512.9682	5513
	Average	6043.2478	6044.29415
	Standard Deviation	663.5088	
	RSD	0.1098	
	%RSD	10.9793	10.9

Calculation RSK175	**Sample**		
	MSA-MW-18I-070918		
Target Analyte	Methane		
Analyte Response	2214682		
Slope/QR A	6044.29415		
Dilution Factor (DF)	1		
Final Volume	23		
Initial Volume	23		
	on column amount	366.4087063	
		366.41	ug/L

Calculation DRO	**Sample**		
	MSA-MW-39S-070218		
Target Analyte	C10-C28		
Analyte Response	87182578		
TPH Response	850533.076	ug/l	
Dilution Factor (DF)	1		
Volume Sample	0.25	ml	
Final Volume	5	ml	
	on column amount	102.503454	
		2050.07	ug/L

Sample Report

Sample Table

Sample Name	240-98135-v-3-a
Data File Name	172SMPL.d
Data Path Name	D:\Analytical Runs\I10071618A.b
Acq Date Time	2018-07-16T22:04:31-04:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	002CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

SAMPLE DMW-17I-070518

ARSENIC 19 ug/L

QC Analyte Table

Name	Mass	ISTD Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Li	7	45	2	NoGas	2.352	2.352	5.17	234410	0.00	10000	
Be	9	45	2	NoGas	0.730	0.730	2.75	4553	0.02	2000	
B	11	45	2	NoGas	6.105	6.105	4.09	36432	0.02	300	
Na	23	45	1	He	7726.408	7726.408	1.94	7854266	0.10	500000	
Mg	24	45	1	He	1186.935	1186.935	1.04	637168	0.19	500000	
Al	27	45	1	He	11.286	11.286	16.64	7168	0.16	200000	
K	39	45	1	He	702.201	702.201	0.08	586902	0.12	500000	
Ca	44	45	1	He	4095.479	4095.479	0.90	73633	5.56	500000	
Ti	47	45	1	He	0.253	0.253	13.10	73	0.34	2500	
V	51	45	1	He	0.929	0.929	5.04	4960	0.02	10000	
Cr	52	45	1	He	0.459	0.459	3.36	3846	0.01	10000	
Mn	55	45	1	He	58.440	58.440	0.80	237296	0.02	10000	
Fe	56	45	1	He	6165.710	6165.710	1.23	27555498	0.02	200000	
Co	59	45	1	He	28.227	28.227	0.52	207869	0.01	5000	
Ni	60	45	1	He	34.699	34.699	0.67	65606	0.05	10000	
Cu	63	103	1	He	2.288	2.288	4.06	14956	0.02	10000	
Zn	66	45	1	He	38.320	38.320	1.15	41239	0.09	10000	
As	75	45	1	He	19.295	19.295	1.02	17266	0.11	10000	
Se	78	45	1	He	0.520	0.520	20.04	185	0.28	10000	
Sr	88	45	1	He	20.931	20.931	0.91	110731	0.02	10000	
Mo	95	103	1	He	0.285	0.285	3.47	847	0.03	2000	
Ag	107	103	1	He	0.015	0.015	39.29	140	0.01	100	
Cd	111	115	1	He	0.186	0.186	25.27	252	0.07	4000	
Sn	118	115	1	He	1.984	1.984	15.54	7248	0.03	2000	
Sb	123	115	1	He	0.402	0.402	1.84	1467	0.03	200	
Ba	137	115	1	He	15.121	15.121	1.75	19991	0.08	10000	
W	182	159	1	He	0.324	0.324	9.27	2075	0.02	2500	
Tl	205	165	1	He	0.167	0.167	14.53	1847	0.01	2000	
Pb	208	165	1	He	0.520	0.520	7.48	8477	0.01	4000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	2	NoGas	2151114	2.12	3429356	62.73	60	120	
Sc	45	1	He	1506630	0.44	2652026	56.81	60	120	ISTD warning
Sc	45	2	NoGas	13199282	1.32	21678428	60.89	60	120	
Rh	103	1	He	3331486	1.76	4849902	68.69	60	120	
In	115	1	He	2112222	1.19	3075954	68.67	60	120	
Tb	159	1	He	3922611	0.98	5275196	74.36	60	120	
Ho	165	1	He	3615184	2.14	4692470	77.04	60	120	
Bi	209	1	He	2377750	2.28	3138470	75.76	60	120	

SAMPLE DMW-16S-070218

240-98038-j-4-a 7/9/2018 8:29:49 PM QC Status: PASS (Initial: PASS) NICKEL 20 ug/L

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B
		ppb	ppb	ppb
x		T 105.626%	0.391	M 402.400
%RSD		T 24.097	4.817	M 1.506
Run	**Time**	**23Na**	**25Mg**	**27Al**
		ppb	ppb	ppb
x		TM 245000.000	M 68640.000	50.220
%RSD		TM 1.062	M 1.559	2.752
Run	**Time**	**35Cl**	**39K**	**43Ca**
		ppb	ppb	ppb
x		T 0.000	T 23460.000	M 97330.000
%RSD		T 0.000	T 0.774	M 1.143
Run	**Time**	**45Sc**	**45Sc CCT**	**47Ti**
		ppb	ppb	ppb
x		T 65.070%	73.269%	0.674
%RSD		T 0.642	1.633	45.560
Run	**Time**	**51V**	**52Cr**	**53Cl O**
		ppb	ppb	ppb
x		2.028	2.938	13.040
%RSD		13.420	1.587	4.202
Run	**Time**	**55Mn**	**56Fe**	**59Co**
		ppb	ppb	ppb
x		TM 3055.000	T 24300.000	17.550
%RSD		TM 1.038	T 1.633	1.113
Run	**Time**	**60Ni**	**65Cu**	**66Zn**
		ppb	ppb	ppb
x		20.390	1.294	1.428
%RSD		3.610	6.280	2.914
Run	**Time**	**72Ge**	**75As**	**77Ar Cl**
		ppb	ppb	ppb
x		62.872%	1.733	-0.482
%RSD		0.890	9.185	1.230
Run	**Time**	**78Se**	**88Sr**	**95Mo**
		ppb	ppb	ppb
x		0.567	M 547.000	0.014
%RSD		8.026	M 1.519	139.400
Run	**Time**	**105Pd**	**107Ag**	**108Mo O**
		ppb	ppb	ppb
x		0.000	0.006	-2.067
%RSD		0.000	52.530	45.310
Run	**Time**	**111Cd**	**115In**	**118Sn**
		ppb	ppb	ppb
x		0.005	57.336%	0.036
%RSD		101.100	1.458	94.500
Run	**Time**	**121Sb**	**137Ba**	**159Tb**
		ppb	ppb	ppb
x		0.039	43.660	0.000
%RSD		27.180	2.575	0.000
Run	**Time**	**165Ho**	**182W**	**205Tl**
		ppb	ppb	ppb
x		58.672%	-0.118	-0.050
%RSD		1.075	3.256	8.689
Run	**Time**	**208Pb**	**209Bi**	
		ppb	ppb	
x		0.031	0.000	
%RSD		14.350	0.000	

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 3, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
SAMPLE DELIVERY GROUPS (SDGs) TLG-013, TLG-015, & TLG-016

SAMPLES: 6/Aqueous/Hexavalent Chromium

SDG TLG-013

MSA-MW-15D-052518 MSA-MW-33I-052518

SDG TLG-015

MSA-MW-54I-052918 MSA-MW-54S-052918

SDG TLG-016

DMW-1A-053018 DMW-1S-053018

Overview

The sample set for LMC – MSA SDGs TLG-013, TLG-015, & TLG-016 consisted of six (6) aqueous environmental samples. All six (6) aqueous samples were analyzed for hexavalent chromium. No field duplicate pairs were included in the SDGs.

The samples were collected by Tetra Tech, Inc. on May 25, 29, & 30, 2018 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times and sample preservation, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, matrix spike/matrix spike duplicate results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The detected result reported above the Method Detection Limit (MDL) but below the Reporting Limit (RL) in sample MSA-MW-15D-052518 was qualified as estimated, (J).

Notes

All samples were properly preserved to a pH of 9.0 – 9.5 and analyzed within 24 hours of sample

receipt. The non-detected results were reported to the Method Detection Limit (MDL).

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: The detected result below the LOQ was estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Michelle L. Woeber

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-MW-15D-052518			MSA-MW-33I-052518		
SDG: TLG-013	LAB_ID	2317028002			2317028001		
FRACTION: MISC	SAMP_DATE	5/25/2018			5/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.23	J	P	0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-54I-052918			MSA-MW-54S-052918		
SDG: TLG-015	LAB_ID	2317390001			2317390002		
FRACTION: MISC	SAMP_DATE	5/29/2018			5/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	DMW-1A-053018			DMW-1S-053018		
SDG: TLG-016	LAB_ID	2317602002			2317602001		
FRACTION: MISC	SAMP_DATE	5/30/2018			5/30/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U	

Appendix B

Results as Reported by the Laboratory

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2317028 TLG013|112IC08424

Lab ID: **2317028001** Date Collected: 5/25/2018 09:51 Matrix: Water

Sample ID: **MSA-MW-33I-052518** Date Received: 5/25/2018 19:04

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		5/26/18 08:45	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2317028 TLG013|112IC08424

Lab ID: **2317028002** Date Collected: 5/25/2018 13:36 Matrix: Water

Sample ID: **MSA-MW-15D-052518** Date Received: 5/25/2018 19:04

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	0.23J	J	ug/L	0.25	0.047	EPA 218.6		5/26/18 09:13	MBW	A

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ANALYTICAL RESULTS

Workorder: 2317390 TLG015|112ICO8424

Lab ID: **2317390001** Date Collected: 5/29/2018 10:35 Matrix: Water

Sample ID: **MSA-MW-54I-052918** Date Received: 5/29/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		5/30/18 05:23	MBW	A

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ANALYTICAL RESULTS

Workorder: 2317390 TLG015|112ICO8424

Lab ID: **2317390002** Date Collected: 5/29/2018 11:46 Matrix: Water

Sample ID: **MSA-MW-54S-052918** Date Received: 5/29/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		5/30/18 05:32	MBW	A

Vanessa N. Badman

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ANALYTICAL RESULTS

Workorder: 2317602 TLG016|1122CO8424

Lab ID: **2317602001** Date Collected: 5/30/2018 09:21 Matrix: Water
Sample ID: **DMW-1S-053018** Date Received: 5/30/2018 22:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		5/31/18 03:47	MBW	A

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ANALYTICAL RESULTS

Workorder: 2317602 TLG016|1122CO8424

Lab ID: **2317602002** Date Collected: 5/30/2018 10:51 Matrix: Water

Sample ID: **DMW-1A-053018** Date Received: 5/30/2018 22:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		5/31/18 03:56	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Appendix C

Support Documentation

ALS Environmental
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Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

* 2 3 1 7 0 2 8 *

Co. Name: Tetra Tech Inc
Contact (Report to): Tony Apanavage
Phone: 301 528-3021
Address: 20251 Century Blvd.
Germantown MD, 20874

Bill to (if different than Report to): Same
PO#:
Project Name/#: 112IC08424
ALS Quote #:
TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:
Email? -Y
Fax? -Y No.:

***Container Type	P
***Container Size	125
*** Preservative	CR6

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)
1	MSA-MW-33I-052518		5/25/18	0951	G	GW	1
2	MSA-MW-15D-052518		↓	1336	↓	↓	1
3							
4							
5							
6							
7							
8							

(completed by Sample Receiving)
Performed by: KM
Cooler Temp: 3°C
Therm. ID: 402
No. of Coolers:
Notes:

Custody seals Present?	(If present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y

Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Circle appropriate Y or N.

SAMPLED BY (Please Print): Walt Payor
Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Walt Pa	5/25/18	1340	2 [signature]	5/25	1340
3 [signature]	5/25	1800	4 [signature] ACS	5/25/18	1800
5 [signature] ACS	5/25/18	1904	6 [signature]	5/25/18	1904
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:
SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐
Other
Enter PWSID No.
DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-013

Sample Management

This report contains the results of the analysis of two (2) ground water samples collected on May 25, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on May 25, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Two (2) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were analyzed within the 24-hour holding period established for the method.

Calibration. A calibration was properly established. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit in the blanks.

Laboratory Control Samples. Laboratory control sample identified as 2747259 was analyzed initially and every 20 samples. The recoveries were within the QC limits.

Spikes. Matrix spike and matrix spike duplicate analyses identified as 2747336 and 2747337 were performed on sample 2317028001 (MSA-MW33I-052518). The spike recoveries and the relative percent difference between the spikes were all within the QC limits.

TETRA TECH ISG
TtNUS Information Systems Group

Completion Ticket

On 5/30/2018 at 9:47 AM the following files were submitted to Tetra Tech:

2317028-A1.txt, 2317028-A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2018530_2343180055_ledd_ALS

You may print this page by clicking on the "Print This Page" button

Thank you for using the Data Checker, to upload more files click the "Upload/Check Files" link on navigation menu.

Print this Page | Back To Upload

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2317028 TLG013|112IC08424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2317028001	MSA-MW-33I-052518	Water	5/25/2018 09:51	5/25/2018 19:04	Collected by Client
2317028002	MSA-MW-15D-052518	Water	5/25/2018 13:36	5/25/2018 19:04	Collected by Client

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SAMPLE SUMMARY

Workorder: 2317028 TLG013|112IC08424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2317028 TLG013|112IC08424

Lab ID	Sample ID	Analysis Method	Prep Method
2317028001	MSA-MW-33I-052518	EPA 218.6	
2317028002	MSA-MW-15D-052518	EPA 218.6	

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QUALITY CONTROL DATA

Workorder: 2317028 TLG013|112IC08424

QC Batch: WETC/205040 **Analysis Method:** EPA 218.6

QC Batch Method: EPA 218.6

Associated Lab Samples: 2317028001, 2317028002

LABORATORY CONTROL SAMPLE: 2747261

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Hexavalent Chromium	99.3	ug/L	10	9.9	90 - 110

MATRIX SPIKE: 2747262 DUPLICATE: 2747263 ORIGINAL: 2316388001 sample not in SDG

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Hexavalent Chromium	.33	ug/L	5	5.489	5.494	103	103	90 - 110	.09	20

METHOD BLANK: 2747265

Parameter	Blank Result	Units	Reporting Limit
Hexavalent Chromium	ND	ug/L	0.25

MATRIX SPIKE: 2747336 DUPLICATE: 2747337 ORIGINAL: 2317028001

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Hexavalent Chromium	0	ug/L	5	5.161	5.248	103	105	90 - 110	1.67	20

METHOD BLANK: 2747339

Parameter	Blank Result	Units	Reporting Limit
Hexavalent Chromium	ND	ug/L	0.25

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2317028 TLG013|112IC08424

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2317028001	MSA-MW-33I-052518			EPA 218.6	WETC/205040
2317028002	MSA-MW-15D-052518			EPA 218.6	WETC/205040

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2315743001	none	X	field
2315744001	none	X	field
2316276002	none	X	field
2316276004	none	X	field
2316322001	none	X	field
2316388001	none	X	field
2316388002	none	X	field
2316389001	none	X	field
2316610003	none	X	field
2317028001	none	X	field
2317028002	none	X	field
2317050001	none	X	field

MBW 5/26/18

Date:	5.26.18 2:10
Tech:	MBW

Queue:	WETC
Batch:	205040

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	CHW
Reviewed date:	5/26/18

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:205040|_D:5.26.18 2:10

Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		052618	052618	finished
2	Cal Std 2	1	CAL		IC-4		052618	052618	finished
3	Cal Std 3	1	CAL		IC-4		052618	052618	finished
4	Cal Std 4	1	CAL		IC-4		052618	052618	finished
5	Cal Std 5	1	CAL		IC-4		052618	052618	finished
6	Cal Std 6	1	CAL		IC-4		052618	052618	finished
7	2747258	1	MB	LRB	IC-4	205040	052618	052618	finished
8	2747259	1	MRL	MRL	IC-4	205040	052618	052618	finished
9	2747260	1	CCVL	LFB	IC-4	205040	052618	052618	finished
10	2747261	1	LCS	QCS	IC-4	205040	052618	052618	finished
11	2315743001	1	SAMPLE		IC-4	205040	052618	052618	finished
12	2315744001	1	SAMPLE		IC-4	205040	052618	052618	finished
13	2316276002	1	SAMPLE		IC-4	205040	052618	052618	finished
14	2316276004	1	SAMPLE		IC-4	205040	052618	052618	finished
15	2316322001	1	SAMPLE		IC-4	205040	052618	052618	finished
16	2316388001	1	SAMPLE		IC-4	205040	052618	052618	finished
17	2747262	1	MS		IC-4	205040	052618	052618	finished
18	2747263	1	MSD		IC-4	205040	052618	052618	finished
19	2316388002	1	SAMPLE		IC-4	205040	052618	052618	finished
20	2316389001	1	SAMPLE		IC-4	205040	052618	052618	finished
21	2316610003	1	SAMPLE		IC-4	205040	052618	052618	finished
22	2747264	1	CCVH		IC-4	205040	052618	052618	finished
23	2747265	1	MB		IC-4	205040	052618	052618	finished
24	2307028001	1	SAMPLE		IC-4	205040	052618	052618	finished
25	2747336	1	MS		IC-4	205040	052618	052618	finished
26	2747337	1	MSD		IC-4	205040	052618	052618	finished
27	2317028002	1	SAMPLE		IC-4	205040	052618	052618	finished
28	2317050001	1	SAMPLE		IC-4	205040	052618	052618	finished
29	2747338	1	CCVL		IC-4	205040	052618	052618	finished
30	2747339	1	MB		IC-4	205040	052618	052618	finished
31	SHUTDOWN		MISC		IC-4	205040	052618	052618	finished

2317028001 is correct ID

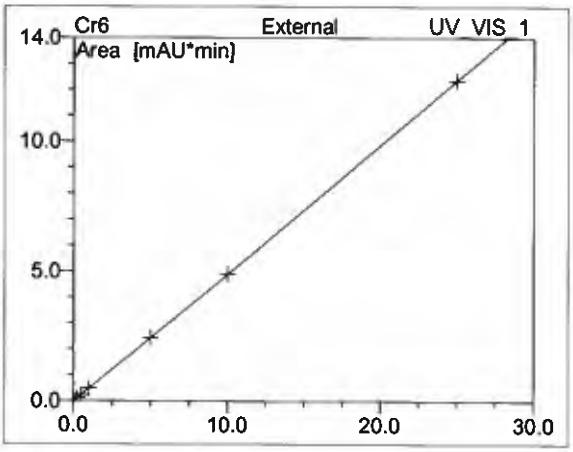
ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2747258	05/26/18 05:33	MBW	1	205040	IC-4	n.a.
8	2747259	05/26/18 05:42	MBW	1	205040	IC-4	0.256
9	2747260	05/26/18 05:52	MBW	1	205040	IC-4	5.052
10	2747261	05/26/18 06:01	MBW	1	205040	IC-4	9.931
11	2315743001	05/26/18 06:11	MBW	1	205040	IC-4	n.a.
12	2315744001	05/26/18 06:20	MBW	1	205040	IC-4	n.a.
13	2316276002	05/26/18 06:29	MBW	1	205040	IC-4	n.a.
14	2316276004	05/26/18 06:39	MBW	1	205040	IC-4	n.a.
15	2316322001	05/26/18 06:48	MBW	1	205040	IC-4	n.a.
16	2316388001	05/26/18 06:57	MBW	1	205040	IC-4	0.330
17	2747262	05/26/18 07:38	MBW	1	205040	IC-4	5.489
18	2747263	05/26/18 07:48	MBW	1	205040	IC-4	5.494
19	2316388002	05/26/18 07:57	MBW	1	205040	IC-4	n.a.
20	2316389001	05/26/18 08:06	MBW	1	205040	IC-4	2.041
21	2316610003	05/26/18 08:17	MBW	1	205040	IC-4	n.a.
22	2747264	05/26/18 08:26	MBW	1	205040	IC-4	19.758
23	2747265	05/26/18 08:36	MBW	1	205040	IC-4	n.a.
24	2307028001	05/26/18 08:45	MBW	1	205040	IC-4	n.a.
25	2747336	05/26/18 08:55	MBW	1	205040	IC-4	5.161
26	2747337	05/26/18 09:04	MBW	1	205040	IC-4	5.248
27	2317028002	05/26/18 09:13	MBW	1	205040	IC-4	0.232
28	2317050001	05/26/18 09:23	MBW	1	205040	IC-4	0.040
29	2747338	05/26/18 09:32	MBW	1	205040	IC-4	5.034
30	2747339	05/26/18 09:42	MBW	1	205040	IC-4	n.a.
31	SHUTDOWN	05/26/18 09:51	MBW		205040	IC-4	n.a.

2317028001 is correct ID

Calibration Batch Report

Sequence:	4-052618	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	052618
Ini. Date/Time:	05/26/18 05:42	Method:	218_6_052618



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.32	Cr6	0QOff	6	-0.008	0.486	0.000	99.9999
AVERAGE:					-0.0081	0.4864	0.0003	99.9999

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG013

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2747260	Hexavalent Chromium	CCVL	05/26/2018 05:52	5	5.1	101		90 - 110
2747264	Hexavalent Chromium	CCVH	05/26/2018 08:26	20	19.8	98.8		90 - 110
2747338	Hexavalent Chromium	CCVL	05/26/2018 09:32	5	5.0	101		90 - 110

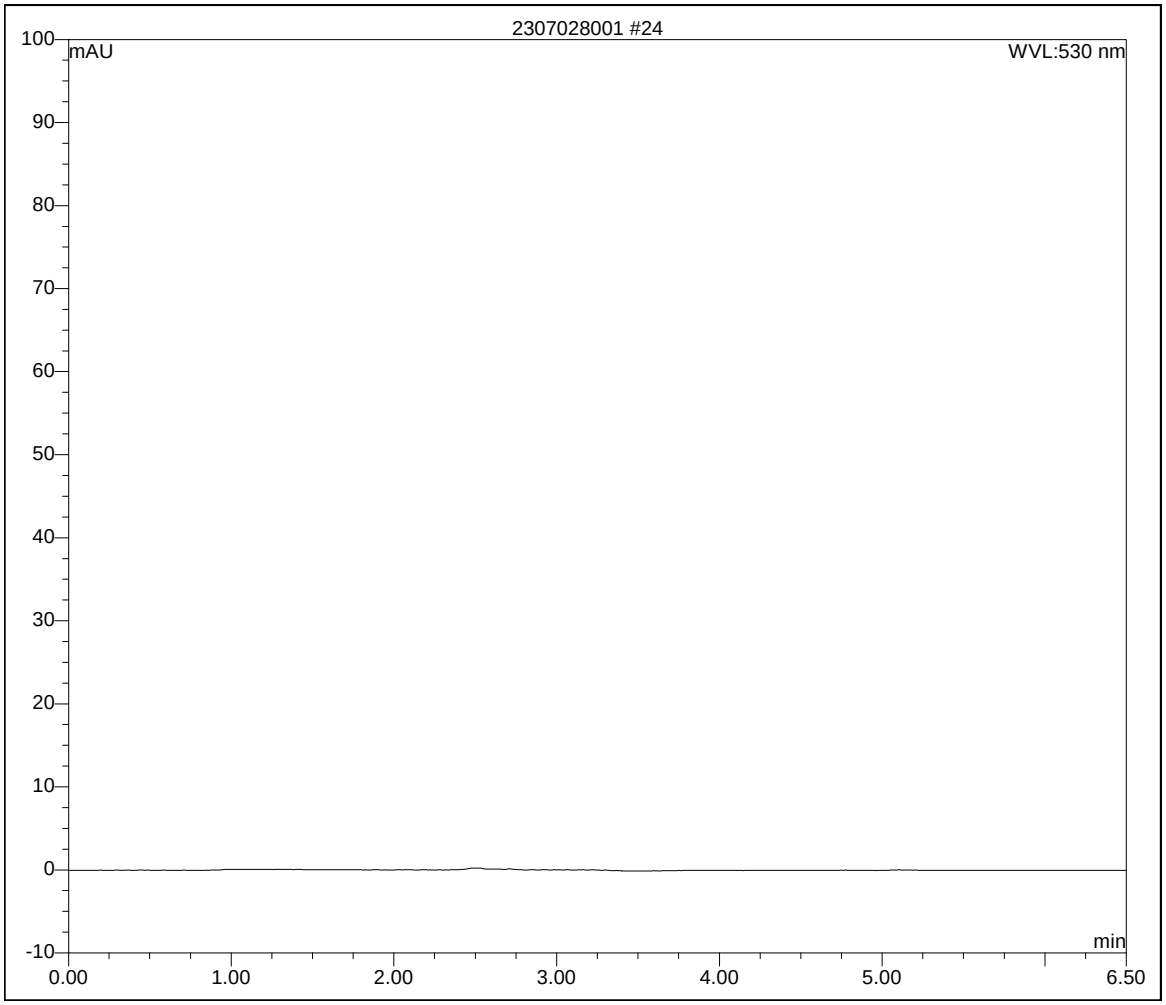
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2307028001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/26/18 08:45**	*Batch:*	**205040**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**052618**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

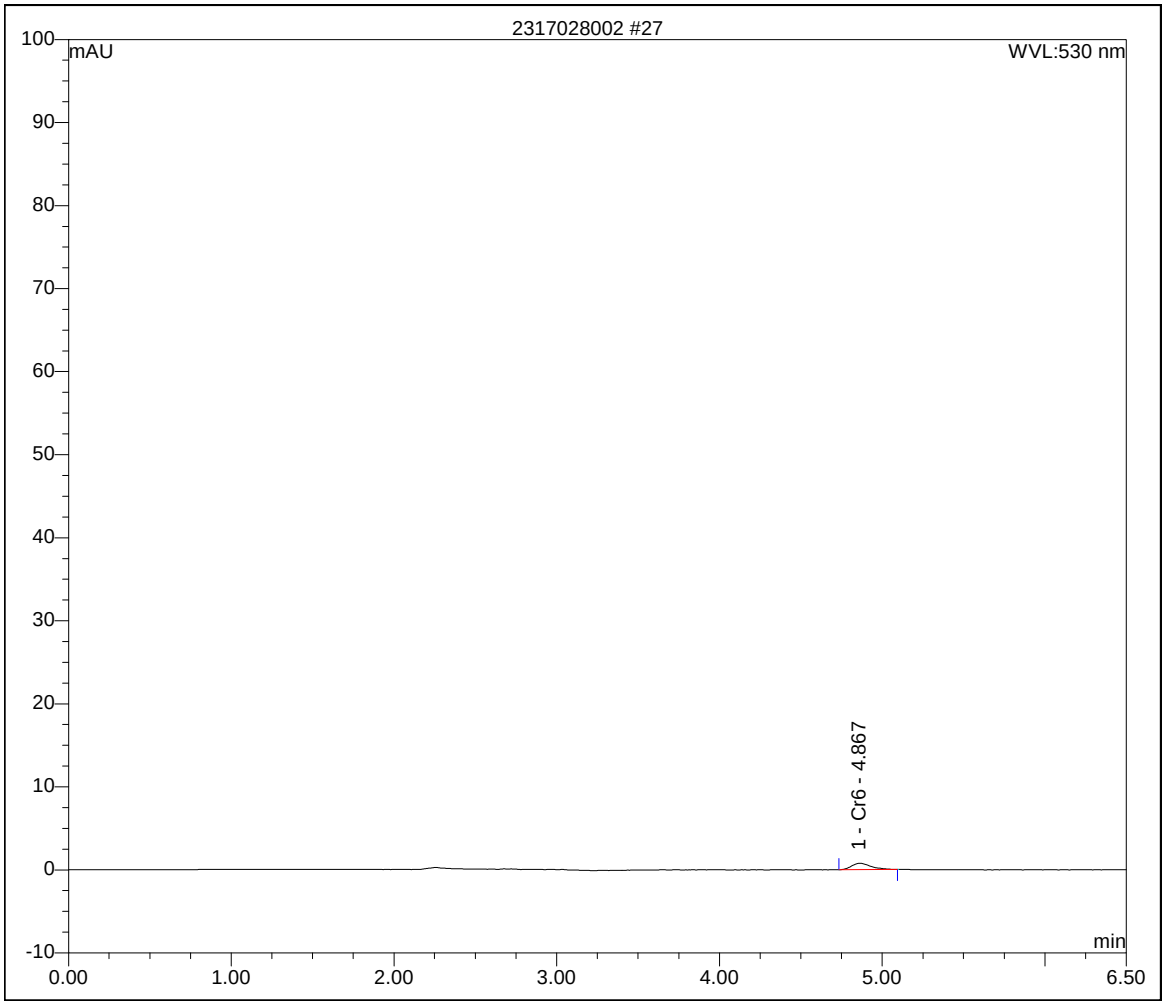
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2317028002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/26/18 09:13**	*Batch:*	**205040**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**052618**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.87	Cr6	0.105	0.761	0.23
		TOTAL:	0.10	0.76	0.23



ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

2317390

Co. Name: Tetra Tech INC

Contact (Report to): Tony Apanavage Phone: 301 528-3021

Address: 20251 Century Blvd. STE 200
Germantown MD 20874

Bill to (if different than Report to): ~~Tetra~~ Same PO#:

Project Name/#: 112IC08424 ALS Quote #:

TAT: Normal-Standard TAT is 10-12 business days. Date Required:
Rush-Subject to ALS approval and surcharges. Approved By:

Email? Y
Fax? Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)	Enter Number of Containers Per Analysis
1	MSA-MW-54I-052918		5/29/18	1035	G	GW	1	
2	MSA-MW-54S-052918		↓	1146	G	GW	1	
3								
4								
5								
6								
7								
8								

***Container Type: P
***Container Size: 125mL
***Preservative: Cool

ANALYSES/METHOD REQUESTED

Cooler Temp: 2°C
Therm. ID: 402
No. of Coolers:
Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	Y	Y	Y	N	
	N	N	N	N	N
	Y	Y	Y	Y	Y

	Custody seals Present?	(if present) Seals intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?

SAMPLED BY (Please Print): Walt Payson

Project Comments: Filtered in field 24 hr TAT

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Payson	5/29/18	1630	2		5/29	1630
3		5/29		4		5/29	1940
5		5/29	2140	6	ALS	5/29/18	2140
7				8			
9				10			

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; other

EDDs Required? If yes, format type:

DOD Criteria Required?

SDWA Forms? yes yes yes yes

State Samples Collected In? ND NJ NY PA

Other

PWS ID No.

ALS FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

* G=Grab; C=Composite

**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-015

Sample Management

This report contains the results of the analysis of two (2) ground water samples collected on May 29, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on May 29, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Two (2) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC4 on 05/26/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2748522 and 2748524 were analyzed initially and every 20 samples. Recoveries were within method control limits.

Spikes. Matrix spike and matrix spike duplicate analyses were not performed on any samples from this data deliverable.

TETRA TECH ISG
TtNUS Information Systems Group

Completion Ticket

On 6/1/2018 at 8:37 AM the following files were submitted to Tetra Tech by charles.blair@alsglobal.com with ALS:

2317390-A1.txt, 2317390-A3.txt

If you need to identify this session at a later date refer to Ticket Key:

201861_3849093112_ledd_ALS

You may print this page by clicking on the "Print This Page" button

Thank you for using the Data Checker, to upload more files click the "Upload/Check Files" link on navigation menu.

Print this Page | Back To Upload

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ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2317390 TLG015|112ICO8424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2317390001	MSA-MW-54I-052918	Water	5/29/2018 10:35	5/29/2018 21:40	Collected by Client
2317390002	MSA-MW-54S-052918	Water	5/29/2018 11:46	5/29/2018 21:40	Collected by Client

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SAMPLE SUMMARY

Workorder: 2317390 TLG015|112ICO8424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2317390 TLG015|112ICO8424

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2317390001	MSA-MW-54I-052918			EPA 218.6	WETC/205133
2317390002	MSA-MW-54S-052918			EPA 218.6	WETC/205133

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

QUALITY CONTROL DATA

Workorder: 2317390 TLG015|112ICO8424

QC Batch: WETC/205133 **Analysis Method:** EPA 218.6

QC Batch Method: EPA 218.6

Associated Lab Samples: 2317390001, 2317390002

METHOD BLANK: 2748521

Parameter	Blank Result	Units	Reporting Limit
Hexavalent Chromium	ND	ug/L	0.25

LABORATORY CONTROL SAMPLE: 2748524

Parameter	LCS % Rec	Units	Spike Conc.	LCS Result	% Rec Limit
Hexavalent Chromium	96.7	ug/L	10	9.7	90 - 110

MATRIX SPIKE: 2748525 DUPLICATE: 2748526 ORIGINAL: 2317389001 sample not in SDG

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Parameter	Original Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Hexavalent Chromium	0	ug/L	5	1.918	1.18	38.4*	23.6*	90 - 110	47.6	20

METHOD BLANK: 2748528

Parameter	Blank Result	Units	Reporting Limit
Hexavalent Chromium	ND	ug/L	0.25

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2317390 TLG015|112ICO8424

Lab ID	Sample ID	Analysis Method	Prep Method
2317390001	MSA-MW-54I-052918	EPA 218.6	
2317390002	MSA-MW-54S-052918	EPA 218.6	

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2317389001	none	X	field
2317389002	none	X	field
2317390001	none	X	field
2317390002	none	X	field

MBW 5/30/18

Date:	5.30.18 2:40
Tech:	MBW

Queue:	WETC
Batch:	205133

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	CHW
Reviewed date:	5/31/18

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:205133|_D:5.30.18 2:40

Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		052618	052618	finished
2	Cal Std 2	1	CAL		IC-4		052618	052618	finished
3	Cal Std 3	1	CAL		IC-4		052618	052618	finished
4	Cal Std 4	1	CAL		IC-4		052618	052618	finished
5	Cal Std 5	1	CAL		IC-4		052618	052618	finished
6	Cal Std 6	1	CAL		IC-4		052618	052618	finished
1	2748521	1	MB	LRB	IC-4	205133	053018	052618	finished
2	2748522	1	MRL	MRL	IC-4	205133	053018	052618	finished
3	2748523	1	CCVL	LFB	IC-4	205133	053018	052618	finished
4	2748524	1	LCS	QCS	IC-4	205133	053018	052618	finished
5	2317389001	1	SAMPLE		IC-4	205133	053018	052618	finished
6	2748525	1	MS		IC-4	205133	053018	052618	finished
7	2748526	1	MSD		IC-4	205133	053018	052618	finished
8	2317389002	1	SAMPLE		IC-4	205133	053018	052618	finished
9	2314390001	1	SAMPLE		IC-4	205133	053018	052618	finished
10	2314390002	1	SAMPLE		IC-4	205133	053018	052618	finished
11	2748527	1	CCVH		IC-4	205133	053018	052618	finished
12	2748528	1	MB		IC-4	205133	053018	052618	finished
13	SHUTDOWN		MISC		IC-4	205133	053018	052618	finished

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2748521	05/30/18 03:57	MBW	1	205133	IC-4	[redacted]
8	2748522	05/30/18 04:06	MBW	1	205133	IC-4	[redacted]
9	2748523	05/30/18 04:16	MBW	1	205133	IC-4	[redacted]
10	2748524	05/30/18 04:25	MBW	1	205133	IC-4	[redacted]
11	2317389001	05/30/18 04:45	MBW	1	205133	IC-4	[redacted]
12	2748525	05/30/18 04:55	MBW	1	205133	IC-4	[redacted]
13	2748526	05/30/18 05:04	MBW	1	205133	IC-4	[redacted]
14	2317389002	05/30/18 05:14	MBW	1	205133	IC-4	[redacted]
15	2314390001	05/30/18 05:23	MBW	1	205133	IC-4	[redacted]
16	2314390002	05/30/18 05:32	MBW	1	205133	IC-4	[redacted]
17	2748527	05/30/18 05:42	MBW	1	205133	IC-4	[redacted]
18	2748528	05/30/18 05:51	MBW	1	205133	IC-4	[redacted]
19	SHUTDOWN	05/30/18 06:01	MBW		205133	IC-4	n.a.

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG015

Instrument ID: IC-4 Units: ug/L

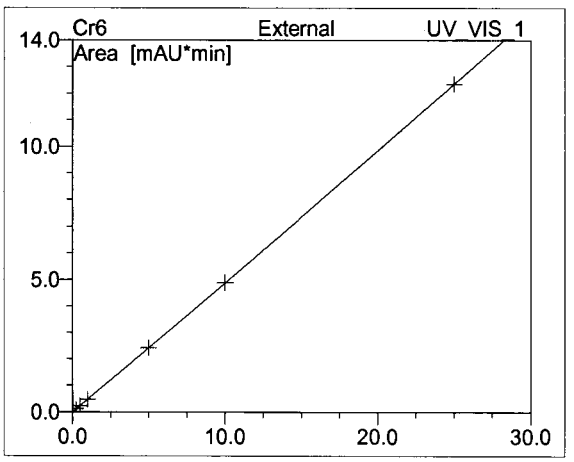
Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2748523	Hexavalent Chromium	CCVL	05/30/2018 04:16	5	5.0	99.4		90 - 110
2748527	Hexavalent Chromium	CCVH	05/30/2018 05:42	20	18.2	91.1		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Calibration Batch Report

Sequence:	**4-052618**	Instrument:	**IC-4**
Instrument Method:	**cr+6**	InitialCal:	**052618**
Ini. Date/Time:	**05/26/18 05:42**	Method:	**218_6_052618**

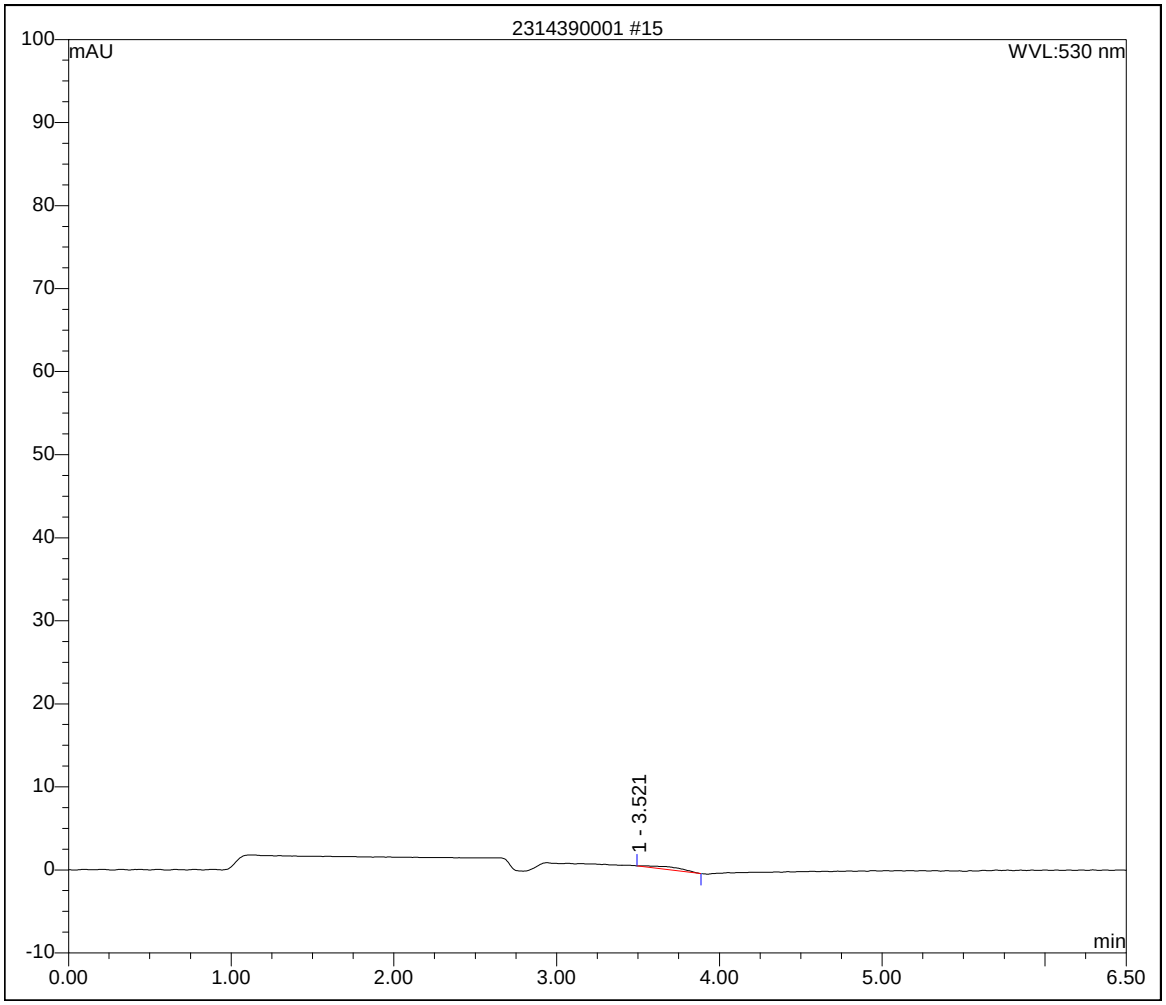


No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.32	Cr6	0QOff	6	-0.008	0.486	0.000	99.9999
AVERAGE:					-0.0081	0.4864	0.0003	99.9999

Peak Integration Report

Sample Name:	**2314390001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/30/18 05:23**	*Batch:*	**205133**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**053018**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

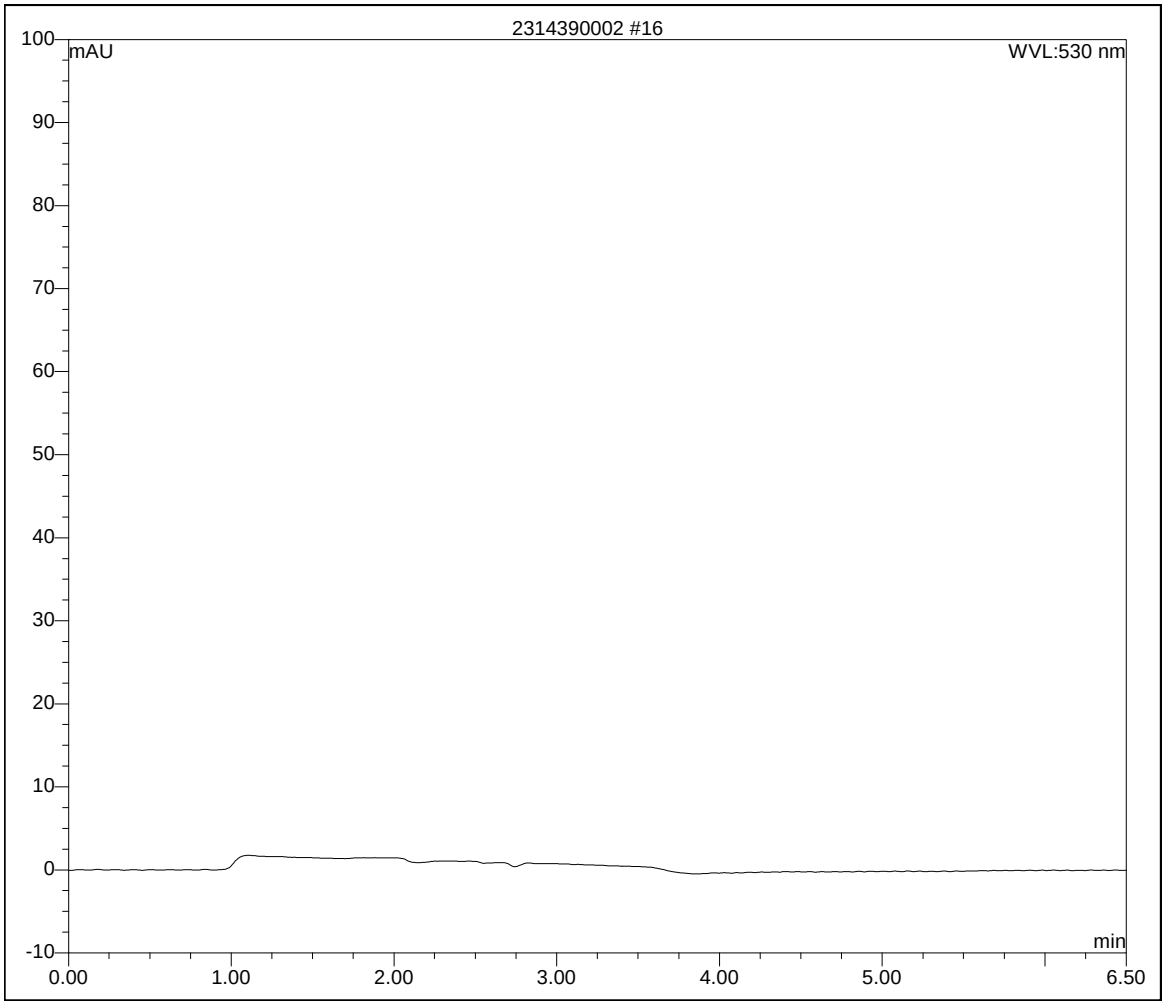
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2314390002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/30/18 05:32**	*Batch:*	**205133**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**053018**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

2317602

Co. Name: Tetra Tech INC

Contact (Report to): Tony Apanavage

Phone: 301 528-3021

Address: 20251 Century Blvd STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same

PO#:

Project Name/#: 112BC08424

ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? ☐ -Y

Fax? ☐ -Y No.:

***Container Type	P														
***Container Size	125														
*** Preservative	Cr6														

ANALYSES/METHOD REQUESTED

Hex Chrom (218.6)

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)									
1	DMW-1S-053018		5/30/18	0921	G	GW	1									
2	DMW-1A-053018		↓	1051	G	GW	1									
3																
4																
5																
6																
7																
8																

Receipt Information (completed by Sample Receiving)

Performed by: [signature]

Cooler Temp: 2°C

Therm. ID: 402

No. of Coolers:

Notes:

Sample Description/Location	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1 DMW-1S-053018	5/30/18	0921	G	GW	1	Y	Y	Y	Y	
2 DMW-1A-053018	↓	1051	G	GW	1	Y	Y	Y	Y	
3						Y	Y	Y	Y	
4						Y	Y	Y	Y	
5						Y	Y	Y	Y	
6						Y	Y	Y	Y	
7						Y	Y	Y	Y	
8						Y	Y	Y	Y	

Custody seals Present? (If present) Seals intact? Received on ice? COC/Labels complete/accurate? Container in good condition?

SAMPLED BY (Please Print): Walt Payne

Project Comments: Filtered in field 24hr TAT

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	5/30/18	1450	2	[signature] WAW	5/30	1450
3	[signature]	5/30		4	[signature]	5/30	1520
5	[signature]	5/30	2230	6	[signature]	5/30/18	2230
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ ____ (other)

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐

State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐

EDDs Required? ☐ If yes, format type:

Other

Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-016

Sample Management

This report contains the results of the analysis of two (2) ground water samples collected on May 30, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on May 30, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Two (2) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were analyzed within the 24-hour holding period established for the method.

Calibration. A calibration was properly established. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2749442 and 2749444 were analyzed initially and every 20 samples. The recoveries were within the QC limits.

Matrix Spikes. A matrix spike/spike duplicate analysis was not performed on any samples from this data deliverable.

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2317602 TLG016|1122CO8424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2317602001	DMW-1S-053018	Water	5/30/2018 09:21	5/30/2018 22:30	Collected by Client
2317602002	DMW-1A-053018	Water	5/30/2018 10:51	5/30/2018 22:30	Collected by Client

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2317602 TLG016|1122CO8424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2317602 TLG016|1122CO8424

Lab ID	Sample ID	Analysis Method	Prep Method
2317602001	DMW-1S-053018	EPA 218.6	
2317602002	DMW-1A-053018	EPA 218.6	

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG016

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2749441	Hexavalent Chromium	MB	QC-Water	05/31/2018 02:22	0.25	U	ug/L
2749448	Hexavalent Chromium	MB	QC-Water	05/31/2018 04:15	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG016

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2749442	Hexavalent Chromium	MRL	05/31/2018 02:32	0.25	0.24	97.2		50 - 150
2749444	Hexavalent Chromium	LCS	05/31/2018 02:50	10	9.8	98.3		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

~~Cr+6 218.6 pH Filtration Prep~~

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2317466001	none	X	field
2317522001	none	X	field
2317576002	none	X	field
2317602001	none	X	field
2317602002	none	X	field

MBW 5/31/18

Date:	5.31.18 1:20
Tech:	MBW

Queue:	WETC
Batch:	205217

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	CHW
Reviewed date:	5/31/18

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:205217|_D:5.31.18 1:20

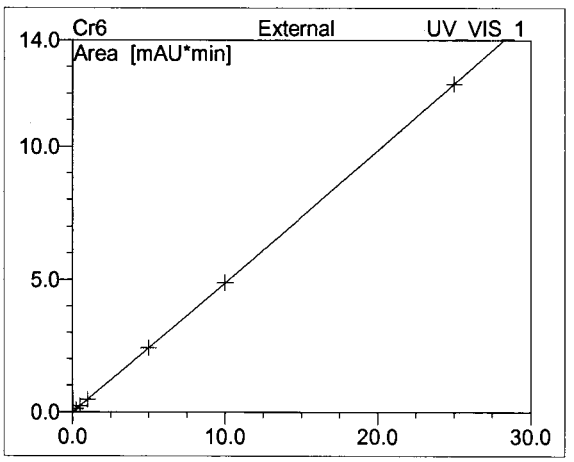
Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		052618	052618	finished
2	Cal Std 2	1	CAL		IC-4		052618	052618	finished
3	Cal Std 3	1	CAL		IC-4		052618	052618	finished
4	Cal Std 4	1	CAL		IC-4		052618	052618	finished
5	Cal Std 5	1	CAL		IC-4		052618	052618	finished
6	Cal Std 6	1	CAL		IC-4		052618	052618	finished
1	2749441	1	MB	LRB	IC-4	205217	053118	052618	finished
2	2749442	1	MRL	MRL	IC-4	205217	053118	052618	finished
3	2749443	1	CCVL	LFB	IC-4	205217	053118	052618	finished
4	2749444	1	LCS	QCS	IC-4	205217	053118	052618	finished
5	2317466001	1	SAMPLE		IC-4	205217	053118	052618	finished
6	2749445	1	MS		IC-4	205217	053118	052618	finished
7	2749446	1	MSD		IC-4	205217	053118	052618	finished
8	2317522001	1	SAMPLE		IC-4	205217	053118	052618	finished
9	2317576002	1	SAMPLE		IC-4	205217	053118	052618	finished
10	2317602001	1	SAMPLE		IC-4	205217	053118	052618	finished
11	2317602002	1	SAMPLE		IC-4	205217	053118	052618	finished
12	2749447	1	CCVH		IC-4	205217	053118	052618	finished
13	2749448	1	MB		IC-4	205217	053118	052618	finished
14	SHUTDOWN		MISC		IC-4	205217	053118	052618	finished

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2749441	05/31/18 02:22	MBW	1	205217	IC-4	n.a.
8	2749442	05/31/18 02:32	MBW	1	205217	IC-4	0.243
9	2749443	05/31/18 02:41	MBW	1	205217	IC-4	4.807
10	2749444	05/31/18 02:50	MBW	1	205217	IC-4	9.832
11	2317466001	05/31/18 03:00	MBW	1	205217	IC-4	n.a.
12	2749445	05/31/18 03:09	MBW	1	205217	IC-4	5.107
13	2749446	05/31/18 03:18	MBW	1	205217	IC-4	4.911
14	2317522001	05/31/18 03:28	MBW	1	205217	IC-4	n.a.
15	2317576002	05/31/18 03:37	MBW	1	205217	IC-4	n.a.
16	2317602001	05/31/18 03:47	MBW	1	205217	IC-4	n.a.
17	2317602002	05/31/18 03:56	MBW	1	205217	IC-4	n.a.
18	2749447	05/31/18 04:05	MBW	1	205217	IC-4	18.151
19	2749448	05/31/18 04:15	MBW	1	205217	IC-4	n.a.
20	SHUTDOWN	05/31/18 04:24	MBW		205217	IC-4	n.a.

Calibration Batch Report

Sequence:	4-052618	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	052618
Ini. Date/Time:	05/26/18 05:42	Method:	218_6_052618



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.32	Cr6	0QOff	6	-0.008	0.486	0.000	99.9999
AVERAGE:					-0.0081	0.4864	0.0003	99.9999

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG016

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2749443	Hexavalent Chromium	CCVL	05/31/2018 02:41	5	4.8	96.1		90 - 110
2749447	Hexavalent Chromium	CCVH	05/31/2018 04:05	20	18.2	90.8		90 - 110

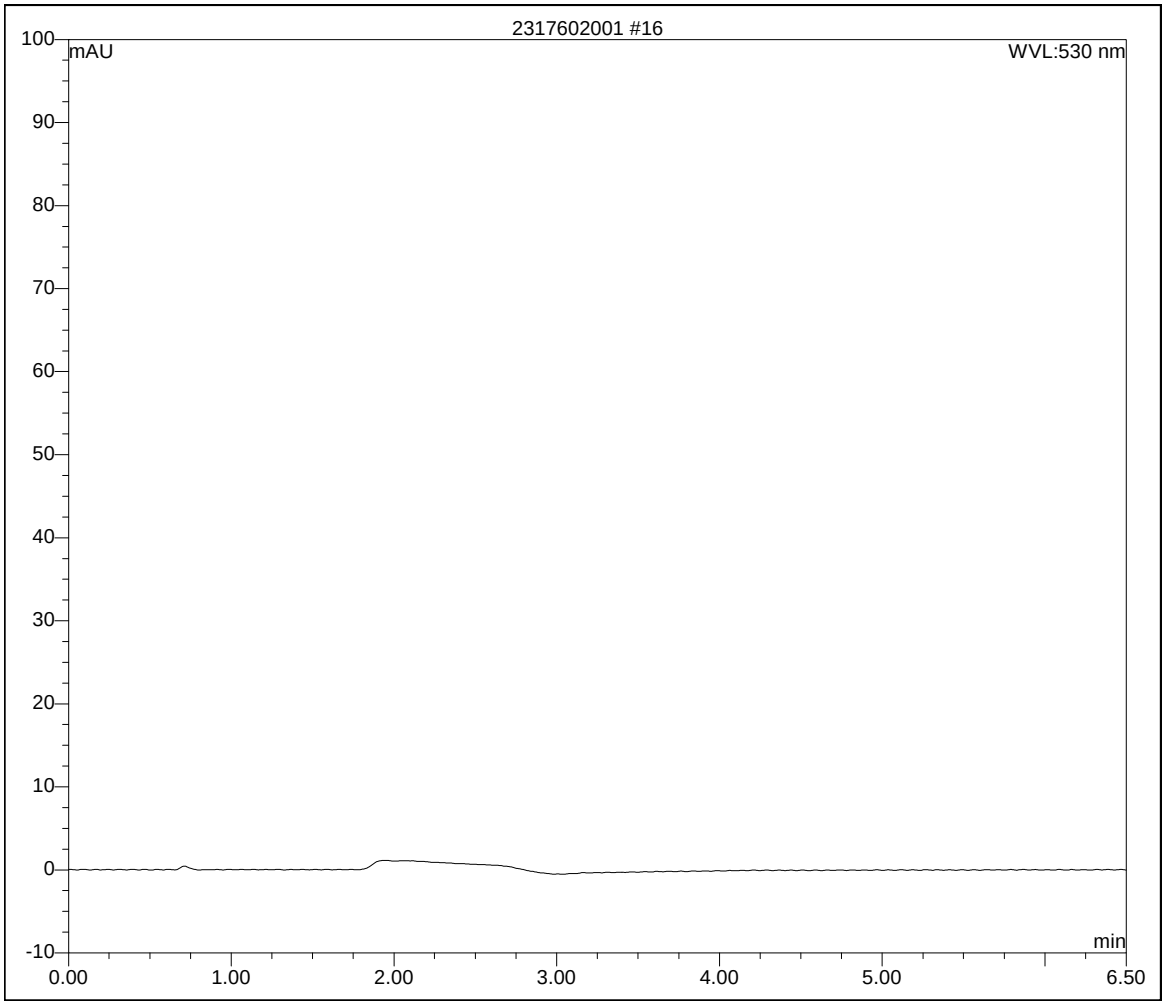
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2317602001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/31/18 03:47**	*Batch:*	**205217**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**053118**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

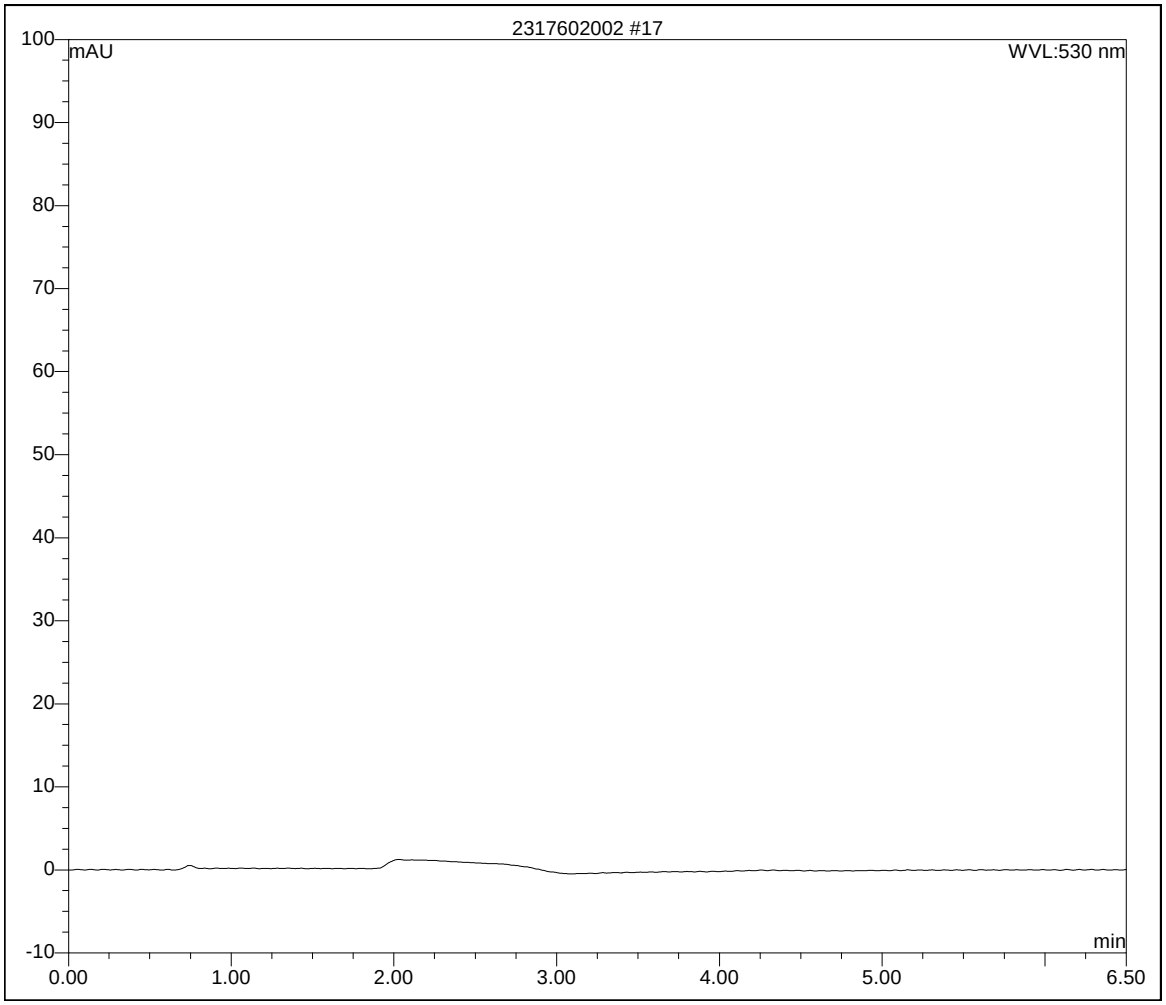
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2317602002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**05/31/18 03:56**	*Batch:*	**205217**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**053118**	*InitialCal:*	**052618**
Sequence2:		*Method:*	**218_6_052618**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 17, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK
SAMPLE DELIVERY GROUP (SDG) TLG-017

SAMPLES: 36/Aqueous/Hexavalent Chromium

MSA-SW37A-060718	MSA-SW37B-060718	MSA-SW37C-060718
MSA-SW37D-060718	MSA-SW38A-060718	MSA-SW38B-060718
MSA-SW38C-060718	MSA-SW38D-060718	MSA-SW39A-060718
MSA-SW39B-060718	MSA-SW39C-060718	MSA-SW39D-060718
MSA-SW40A-060718	MSA-SW40B-060718	MSA-SW40C-060718
MSA-SW40D-060718	MSA-SW41A-060718	MSA-SW41B-060718
MSA-SW41C-060718	MSA-SW41D-060718	MSA-SW42A-060718
MSA-SW42B-060718	MSA-SW42C-060718	MSA-SW42D-060718
MSA-SW43A-060718	MSA-SW43B-060718	MSA-SW43C-060718
MSA-SW43D-060718	MSA-SW44A-060718	MSA-SW44B-060718
MSA-SW44C-060718	MSA-SW44D-060718	MSA-SW45A-060718
MSA-SW45B-060718	MSA-SW45C-060718	MSA-SW45D-060718

Overview

The sample set for LMC – MSA Frog Mortar Creek, SDG TLG-017 consisted of thirty-six (36) aqueous environmental samples. All thirty-six (36) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech, Inc. on June 7, 2018 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times and sample preservation, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, matrix spike/matrix spike duplicate results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses performed on samples MSA-SW39A-060718 and MSA-SW43C-060718 had Percent Recoveries (%Rs) for hexavalent chromium below the lower quality control limit. The MS/MSD analyses performed on MSA-SW37A-060718 had acceptable %Rs. The non-detected results reported for samples MSA-SW39A-060718 and MSA-SW43C-060718 were qualified as estimated, (UJ). The remaining samples were not qualified because not all MS/MSD %Rs were outside the quality control limits.

Notes

The sample Chain of Custodies (COCs) did not have the full sample identifications. The sample identifications were corrected in the database.

All samples were properly preserved to a pH of 9.0 – 9.5 and analyzed within 24 hours of sample receipt.

The non-detected results were reported to the Method Detection Limit (MDL).

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Michelle L. Woeber

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	MSA-SW37A-060718			MSA-SW37B-060718			MSA-SW37C-060718			MSA-SW37D-060718		
SDG: TLG-017	LAB_ID	2319228021			2319228022			2319228023			2319228024		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW38A-060718			MSA-SW38B-060718			MSA-SW38C-060718			MSA-SW38D-060718		
SDG: TLG-017	LAB_ID	2319228013			2319228014			2319228015			2319228016		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW39A-060718			MSA-SW39B-060718			MSA-SW39C-060718			MSA-SW39D-060718		
SDG: TLG-017	LAB_ID	2319228001			2319228002			2319228003			2319228004		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	UJ	D	0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW40A-060718			MSA-SW40B-060718			MSA-SW40C-060718			MSA-SW40D-060718		
SDG: TLG-017	LAB_ID	2319228017			2319228018			2319228019			2319228020		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW41A-060718			MSA-SW41B-060718			MSA-SW41C-060718			MSA-SW41D-060718		
SDG: TLG-017	LAB_ID	2319228025			2319228026			2319228027			2319228028		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW42A-060718			MSA-SW42B-060718			MSA-SW42C-060718			MSA-SW42D-060718		
SDG: TLG-017	LAB_ID	2319228033			2319228034			2319228035			2319228036		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW43A-060718			MSA-SW43B-060718			MSA-SW43C-060718			MSA-SW43D-060718		
SDG: TLG-017	LAB_ID	2319228009			2319228010			2319228011			2319228012		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	UJ	D	0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW44A-060718			MSA-SW44B-060718			MSA-SW44C-060718			MSA-SW44D-060718		
SDG: TLG-017	LAB_ID	2319228005			2319228006			2319228007			2319228008		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-SW45A-060718			MSA-SW45B-060718			MSA-SW45C-060718			MSA-SW45D-060718		
SDG: TLG-017	LAB_ID	2319228029			2319228030			2319228031			2319228032		
FRACTION: MISC	SAMP_DATE	6/7/2018			6/7/2018			6/7/2018			6/7/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

Appendix B

Results as Reported by the Laboratory

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228001** Date Collected: 6/7/2018 09:43 Matrix: Water
Sample ID: **SW39A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND	1	ug/L	0.25	0.047	EPA 218.6		6/8/18 06:49	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228002** Date Collected: 6/7/2018 09:48 Matrix: Water
Sample ID: **SW39B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 07:20	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228003** Date Collected: 6/7/2018 09:52 Matrix: Water
Sample ID: **SW39C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 07:30	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228004** Date Collected: 6/7/2018 09:56 Matrix: Water
Sample ID: **SW39D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 07:41	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228005** Date Collected: 6/7/2018 10:19 Matrix: Water
Sample ID: **SW44A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 07:51	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228006** Date Collected: 6/7/2018 10:22 Matrix: Water
Sample ID: **SW44B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 08:02	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228007** Date Collected: 6/7/2018 10:26 Matrix: Water
Sample ID: **SW44C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 08:12	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228008** Date Collected: 6/7/2018 10:29 Matrix: Water
Sample ID: **SW44D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 08:22	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228009** Date Collected: 6/7/2018 10:35 Matrix: Water
Sample ID: **SW43A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 08:33	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228010** Date Collected: 6/7/2018 10:38 Matrix: Water
Sample ID: **SW43B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 08:43	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228011** Date Collected: 6/7/2018 10:41 Matrix: Water
Sample ID: **SW43C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND	1	ug/L	0.25	0.047	EPA 218.6		6/8/18 09:14	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228012** Date Collected: 6/7/2018 10:44 Matrix: Water
Sample ID: **SW43D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 09:46	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228013** Date Collected: 6/7/2018 11:14 Matrix: Water
Sample ID: **SW38A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 09:56	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228014** Date Collected: 6/7/2018 11:18 Matrix: Water
Sample ID: **SW38B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:06	MBW	A

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ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228015** Date Collected: 6/7/2018 11:21 Matrix: Water
Sample ID: **SW38C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:17	MBW	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228016** Date Collected: 6/7/2018 11:25 Matrix: Water
Sample ID: **SW38D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:27	MBW	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228017** Date Collected: 6/7/2018 11:33 Matrix: Water
Sample ID: **SW40A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:38	MBW	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228018** Date Collected: 6/7/2018 11:37 Matrix: Water
Sample ID: **SW40B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:48	MBW	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228019** Date Collected: 6/7/2018 11:40 Matrix: Water
Sample ID: **SW40C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 10:58	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228020** Date Collected: 6/7/2018 11:43 Matrix: Water
Sample ID: **SW40D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/8/18 11:09	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228021** Date Collected: 6/7/2018 12:09 Matrix: Water
Sample ID: **SW37A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 05:54	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228022** Date Collected: 6/7/2018 12:12 Matrix: Water
Sample ID: **SW37B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 06:25	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228023** Date Collected: 6/7/2018 12:15 Matrix: Water

Sample ID: **SW37C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 06:35	MBW	A

Vanessa N. Badman

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228024** Date Collected: 6/7/2018 12:19 Matrix: Water
Sample ID: **SW37D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 06:46	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228025** Date Collected: 6/7/2018 10:53 Matrix: Water
Sample ID: **SW41A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 06:56	MBW	A

Vanessa N. Badman

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Project Coordinator

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228026** Date Collected: 6/7/2018 10:57 Matrix: Water

Sample ID: **SW41B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 07:06	MBW	A

Vanessa N. Badman

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228027** Date Collected: 6/7/2018 11:01 Matrix: Water
Sample ID: **SW41C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 07:17	MBW	A

Vanessa N. Badman
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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228028** Date Collected: 6/7/2018 11:05 Matrix: Water

Sample ID: **SW41D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 07:27	MBW	A

Vanessa N. Badman

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228029** Date Collected: 6/7/2018 10:02 Matrix: Water
Sample ID: **SW45A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 07:38	MBW	A

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228030** Date Collected: 6/7/2018 10:06 Matrix: Water
Sample ID: **SW45B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 07:48	MBW	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228031** Date Collected: 6/7/2018 10:10 Matrix: Water
Sample ID: **SW45C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 08:19	MBW	A

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228032** Date Collected: 6/7/2018 10:13 Matrix: Water
Sample ID: **SW45D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 08:50	MBW	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228033** Date Collected: 6/7/2018 11:50 Matrix: Water
Sample ID: **SW42A** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 09:00	MBW	A

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ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228034** Date Collected: 6/7/2018 11:54 Matrix: Water
Sample ID: **SW42B** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 09:10	MBW	A

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ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228035** Date Collected: 6/7/2018 12:00 Matrix: Water
Sample ID: **SW42C** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 09:20	MBW	A

Vanessa N. Badman
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ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID: **2319228036** Date Collected: 6/7/2018 12:04 Matrix: Water
Sample ID: **SW42D** Date Received: 6/7/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/9/18 09:30	MBW	A

Vanessa N. Badman
Mrs. Vanessa N Badman
Project Coordinator

Appendix C

Support Documentation

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier:
Tracking #:

231928

Co. Name:
Contact (Report to): TONY APANAVAGE Phone:
Address: TETRATECH
GERMANTOWN, MD
Tony.Apanavage@tetratech.com

Bill to (if different than Report to): PO#:

Project Name/#: ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. Date Required:
☐ Rush-Subject to ALS approval and surcharges. Approved By:

Email? ☐ -Y
Fax? ☐ -Y No:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	HEXACHROME 218.6	Enter Number of Containers Per Analysis
1 SW39A		6/7/18	0943	G	W	1	
2 SW39B		6/7/18	0948	G	W	1	
3 SW39C		6/7/18	0952	G	W	1	
4 SW39D		6/7/18	0956	G	W	1	
5 SW44A		6/7/18	1019	G	W	1	
6 SW44B		6/7/18	1022	G	W	1	
7 SW44C		6/7/18	1026	G	W	1	
8 SW44D		6/7/18	1029	G	W	1	

***Container Type: PL
***Container Size: 250ml
***Preservative: CR6

ANALYSES/METHOD REQUESTED

Performed by:
Cooler Temp: 1.2
Therm. ID: 402
No. of Coolers:
Notes:

Circle appropriate Y or N.	Container in good condition?	COC/Labels complete/accurate?	Received on ice?	(if present) Seals intact?	Custody seals Present?
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N
Y	Y	Y	Y	N	N

Correct container? Y
Correct sample volume? Y
Correct preservation? Y
Headspace/Notation? N

SAMPLED BY (Please Print):

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	6/7/18	1515	2	6/7	1515
3	6/7/18	1612	4	6/7	1529
5	6/7	2.QL	6	6/7/18	2210
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐ Other
State Samples Collected in? MD ☐ NJ ☐ NY ☐ PA ☐
Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES
☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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Rev 01-2013

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
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F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier:
Tracking #:

9228

Co. Name:
Contact (Report to): TONY APANAVAGE TETRA TECH
Phone:
Address: GERMANTOWN, MD
Tony.Apanavage@tetratech.com

Bill to (If different than Report to):
PO#:

Project Name/#:
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ Y
Fax? ☐ Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	HEX CHROME 218.6									
***Container Type						PL									
***Container Size						250ml									
Preservative						CR6									
						ANALYSES/METHOD REQUESTED									
1 SW43A		6/7/18	1635	G	W	1									
2 SW43B		6/7/18	1038	G	W	1									
3 SW43C		6/7/18	1041	G	W	1									
4 SW43D		6/7/18	1044	G	W	1									
5 SW38A		6/7/18	1114	G	W	1									
6 SW38B		6/7/18	1118	G	W	1									
7 SW38C		6/7/18	1121	G	W	1									
8 SW38D		6/7/18	1125	G	W	1									
						Enter Number of Containers Per Analysis									

Receipt Information (completed by Sample Receiving)
Performed by: KMM
Cooler Temp: 1 °C
Therm. ID: 407
No. of Coolers:
Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	Y	Y	Y	Y	
	N	N	N	N	N
	Y	Y	Y	Y	Y
	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?

SAMPLED BY (Please Print):

Project Comments:

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ new
EDDs Required? ☐ If yes, format type:
SDWA Forms? ⇒ yes ☐ yes ☐ yes ☐
State Samples Collected In? ND ☐ NJ ☐ NY ☐ PA ☐
Other
⇒ Enter PWSID No.
DOD Criteria Required?

ALS FIELD SERVICES
☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	06/07/18	1515	2	6/7	1515
3	6/7/18	1612	4	6/7	1612
5	6/7	2260	6	6/7/18	2210
7			8		
9			10		

* G=Grab; C=Composite
** Matrix: A=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
*** Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY
Rev 01-2013

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Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier:
Tracking #:

COC#

Co. Name: TONY APANAVAGE, TETRA TECH
Contact (Report to): GERMANTOWN, MD
Phone:
Address: Tony.Apanavage@tetratech.com

Bill to (if different than Report to):
PO#:
Project Name/#:
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

***Container Type	PL
***Container Size	250
Preservative	CR6

ANALYSES/METHOD REQUESTED

HEX CHROME 218.6

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	HEX CHROME 218.6
1	SW40A		06-07	1133	G	W	1 ✓
2	SW40B		06-07	1137	G	W	1 ✓
3	SW40C		06-07	1140	G	W	1 ✓
4	SW40D		06-07	1143	G	W	1 ✓
5	SW37A		06-07	1209	G	W	1 ✓
6	SW37B		06-07	1212	G	W	1 ✓
7	SW37C		06-07	1215	G	W	1 ✓
8	SW37D		06-07	1219	G	W	1 ✓

Receipt Information (completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 1°C
Therm. ID: 402
No. of Coolers:
Notes:

Sample	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	N	N	N	N	N
5	Y	Y	Y	Y	Y
6	N	N	N	N	N
7	Y	Y	Y	Y	Y
8	N	N	N	N	N

Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Circle appropriate Y or N.

SAMPLED BY (Please Print):
Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	06/07/18	1515	2 [signature]	6/7	1515
3 [signature]	6/7/18	1612	4 [signature]	6/7	1555
5 [signature] ALC	6/7	2020	6 [signature]	6/7/18	2210
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:
DOD Criteria Required?

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐
Other
⇒ Enter PWSID No.

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier:
Tracking #:

COC#

Co. Name: TONY APANAVAGE ; TETRA TECH
Contact (Report to): GERMANTOWN, MD
Phone:
Address: Tony.Apanavage@tetratech.com

Bill to (if different than Report to):
PO#:
Project Name/#:
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

***Container Type	PL
***Container Size	250
*** Preservative	CRG

ANALYSES/METHOD REQUESTED: HEX CHROME 218.6

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	HEX CHROME 218.6
1	SW41A ~~B~~ CB 06-07-18		1057	06-07	G	W	1 ✓
2	SW41B		1057	06-07	G	W	1 ✓
3	SW41C		1101	06-07	G	W	1 ✓
4	SW41D		1105	06-07	G	W	1 ✓
5	SW45A		1002	06-07	G	W	1 ✓
6	SW45B		1006	06-07	G	W	1 ✓
7	SW45C		1010	06-07	G	W	1 ✓
8	SW45D		1013	06-07	G	W	1 ✓

Receipt Information (completed by Sample Receiving)
Performed by: [illegible]
Cooler Temp: 1°C
Therm. ID: 402
No. of Coolers:
Notes:

Sample	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	N	N	N	N	N
5	N	N	N	N	N
6	N	N	N	N	N
7	N	N	N	N	N
8	N	N	N	N	N

Correct containers? Y N
Correct sample volume? Y N
Correct preservation? Y N
Headspace/Volatiles? Y N
Circle appropriate Y or N.

SAMPLED BY (Please Print):
Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	06/07/18	1515	2 [signature]	6/7	1515
3 [signature]	6/7/18	1612	4 [signature]	6/7	1524
5 [signature]	6/7	2210	6 [signature]	6/7/18	2210
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:
SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐ Other
Enter PWSID No.
OOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier:
Tracking #:

9228

Co. Name:
Contact (Report to): TONY APANAVAGE
Address: TETRA TECH
GERMANTOWN, MD
Tony.Apanavage@tetratech.com
Phone:

Bill to (if different than Report to):
PO#:

Project Name/#:
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

***Container Type	PL
***Container Size	250 mL
*** Preservative	CR6

ANALYSES/METHOD REQUESTED

HEXA CHROME 218.6

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	HEXA CHROME 218.6
1	SW42A		6/7/18	1150	G	W	1
2	SW42B		6/7/18	1154	G	W	1
3	SW42C		6/7/18	1200	G	W	1
4	SW42D		6/7/18	1204	G	W	1
5							
6							
7							
8							

Receipt Information (completed by Sample Receiving)
Performed by: [illegible]
Cooler Temp: 1 °C
Therm. ID: 402
No. of Coolers:
Notes:

Circle appropriate Y or N.	Y	Y	Y	Y	Y
Correct containers?	Y	Y	Y	Y	Y
Correct sample volume?	Y	Y	Y	Y	Y
Correct preservation?	Y	Y	Y	Y	Y
Headspace/Volatiles?	Y	Y	Y	Y	Y
Custody seals Present?	Y	Y	Y	Y	Y
(if present) Seals intact?	Y	Y	Y	Y	Y
Received on Ice?	Y	Y	Y	Y	Y
COC/Labels complete/accurate?	Y	Y	Y	Y	Y
Container in good condition?	Y	Y	Y	Y	Y

SAMPLED BY (Please Print):

Project Comments:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	06/07/18	1515	2	[signature]	6/7	1515
3	[signature]	6/7	1612	4	[signature]	6/7	1525
5	[signature]	6/7	2200	6	[signature]	6/7/18	2210
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ (other)
EDDs Required? ☐ If yes, format type:
DOD Criteria Required?

SOWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MO ☐ NJ ☐ NY ☐ PA ☐
Other
⇨ Enter PWSID No.

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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SAMPLE SUMMARY

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2319228001	SW39A	Water	6/7/2018 09:43	6/7/2018 22:10	Collected by Client
2319228002	SW39B	Water	6/7/2018 09:48	6/7/2018 22:10	Collected by Client
2319228003	SW39C	Water	6/7/2018 09:52	6/7/2018 22:10	Collected by Client
2319228004	SW39D	Water	6/7/2018 09:56	6/7/2018 22:10	Collected by Client
2319228005	SW44A	Water	6/7/2018 10:19	6/7/2018 22:10	Collected by Client
2319228006	SW44B	Water	6/7/2018 10:22	6/7/2018 22:10	Collected by Client
2319228007	SW44C	Water	6/7/2018 10:26	6/7/2018 22:10	Collected by Client
2319228008	SW44D	Water	6/7/2018 10:29	6/7/2018 22:10	Collected by Client
2319228009	SW43A	Water	6/7/2018 10:35	6/7/2018 22:10	Collected by Client
2319228010	SW43B	Water	6/7/2018 10:38	6/7/2018 22:10	Collected by Client
2319228011	SW43C	Water	6/7/2018 10:41	6/7/2018 22:10	Collected by Client
2319228012	SW43D	Water	6/7/2018 10:44	6/7/2018 22:10	Collected by Client
2319228013	SW38A	Water	6/7/2018 11:14	6/7/2018 22:10	Collected by Client
2319228014	SW38B	Water	6/7/2018 11:18	6/7/2018 22:10	Collected by Client
2319228015	SW38C	Water	6/7/2018 11:21	6/7/2018 22:10	Collected by Client
2319228016	SW38D	Water	6/7/2018 11:25	6/7/2018 22:10	Collected by Client
2319228017	SW40A	Water	6/7/2018 11:33	6/7/2018 22:10	Collected by Client
2319228018	SW40B	Water	6/7/2018 11:37	6/7/2018 22:10	Collected by Client
2319228019	SW40C	Water	6/7/2018 11:40	6/7/2018 22:10	Collected by Client
2319228020	SW40D	Water	6/7/2018 11:43	6/7/2018 22:10	Collected by Client
2319228021	SW37A	Water	6/7/2018 12:09	6/7/2018 22:10	Collected by Client
2319228022	SW37B	Water	6/7/2018 12:12	6/7/2018 22:10	Collected by Client
2319228023	SW37C	Water	6/7/2018 12:15	6/7/2018 22:10	Collected by Client
2319228024	SW37D	Water	6/7/2018 12:19	6/7/2018 22:10	Collected by Client
2319228025	SW41A	Water	6/7/2018 10:53	6/7/2018 22:10	Collected by Client
2319228026	SW41B	Water	6/7/2018 10:57	6/7/2018 22:10	Collected by Client
2319228027	SW41C	Water	6/7/2018 11:01	6/7/2018 22:10	Collected by Client
2319228028	SW41D	Water	6/7/2018 11:05	6/7/2018 22:10	Collected by Client
2319228029	SW45A	Water	6/7/2018 10:02	6/7/2018 22:10	Collected by Client
2319228030	SW45B	Water	6/7/2018 10:06	6/7/2018 22:10	Collected by Client
2319228031	SW45C	Water	6/7/2018 10:10	6/7/2018 22:10	Collected by Client
2319228032	SW45D	Water	6/7/2018 10:13	6/7/2018 22:10	Collected by Client
2319228033	SW42A	Water	6/7/2018 11:50	6/7/2018 22:10	Collected by Client
2319228034	SW42B	Water	6/7/2018 11:54	6/7/2018 22:10	Collected by Client

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2319228035	SW42C	Water	6/7/2018 12:00	6/7/2018 22:10	Collected by Client
2319228036	SW42D	Water	6/7/2018 12:04	6/7/2018 22:10	Collected by Client

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2319228 TLG016| Lockheed Martin Middle

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2319228 TLG016| Lockheed Martin Middle

Lab ID	Sample ID	Analysis Method	Prep Method
2319228001	SW39A	EPA 218.6	
2319228002	SW39B	EPA 218.6	
2319228003	SW39C	EPA 218.6	
2319228004	SW39D	EPA 218.6	
2319228005	SW44A	EPA 218.6	
2319228006	SW44B	EPA 218.6	
2319228007	SW44C	EPA 218.6	
2319228008	SW44D	EPA 218.6	
2319228009	SW43A	EPA 218.6	
2319228010	SW43B	EPA 218.6	
2319228011	SW43C	EPA 218.6	
2319228012	SW43D	EPA 218.6	
2319228013	SW38A	EPA 218.6	
2319228014	SW38B	EPA 218.6	
2319228015	SW38C	EPA 218.6	
2319228016	SW38D	EPA 218.6	
2319228017	SW40A	EPA 218.6	
2319228018	SW40B	EPA 218.6	
2319228019	SW40C	EPA 218.6	
2319228020	SW40D	EPA 218.6	
2319228021	SW37A	EPA 218.6	
2319228022	SW37B	EPA 218.6	
2319228023	SW37C	EPA 218.6	
2319228024	SW37D	EPA 218.6	
2319228025	SW41A	EPA 218.6	
2319228026	SW41B	EPA 218.6	
2319228027	SW41C	EPA 218.6	
2319228028	SW41D	EPA 218.6	
2319228029	SW45A	EPA 218.6	
2319228030	SW45B	EPA 218.6	
2319228031	SW45C	EPA 218.6	
2319228032	SW45D	EPA 218.6	
2319228033	SW42A	EPA 218.6	
2319228034	SW42B	EPA 218.6	
2319228035	SW42C	EPA 218.6	
2319228036	SW42D	EPA 218.6	

Pos	Name	ilutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		060818	060818	finished
2	Cal Std 2	1	CAL		IC-4		060818	060818	finished
3	Cal Std 3	1	CAL		IC-4		060818	060818	finished
4	Cal Std 4	1	CAL		IC-4		060818	060818	finished
5	Cal Std 5	1	CAL		IC-4		060818	060818	finished
6	Cal Std 6	1	CAL		IC-4		060818	060818	finished
7	2754646	1	MB	LRB	IC-4	205668	060818	060818	finished
8	2754647	1	MRL	MRL	IC-4	205668	060818	060818	finished
9	2754648	1	CCVL	LFB	IC-4	205668	060818	060818	finished
10	2754649	1	LCS	QCS	IC-4	205668	060818	060818	finished
11	2319228001	1	SAMPLE		IC-4	205668	060818	060818	finished
12	2754650	1	MS		IC-4	205668	060818	060818	finished
13	2754651	1	MSD		IC-4	205668	060818	060818	finished
14	2319228002	1	SAMPLE		IC-4	205668	060818	060818	finished
15	2319228003	1	SAMPLE		IC-4	205668	060818	060818	finished
16	2319228004	1	SAMPLE		IC-4	205668	060818	060818	finished
17	2319228005	1	SAMPLE		IC-4	205668	060818	060818	finished
18	2319228006	1	SAMPLE		IC-4	205668	060818	060818	finished
19	2319228007	1	SAMPLE		IC-4	205668	060818	060818	finished
20	2319228008	1	SAMPLE		IC-4	205668	060818	060818	finished
21	2319228009	1	SAMPLE		IC-4	205668	060818	060818	finished
22	2319228010	1	SAMPLE		IC-4	205668	060818	060818	finished
23	2754652	1	CCVH		IC-4	205668	060818	060818	finished
24	2754653	1	MB		IC-4	205668	060818	060818	finished
25	2319228011	1	SAMPLE		IC-4	205668	060818	060818	finished
26	2754654	1	MS		IC-4	205668	060818	060818	finished
27	2754655	1	MSD		IC-4	205668	060818	060818	finished
28	2319228012	1	SAMPLE		IC-4	205668	060818	060818	finished
29	2319228013	1	SAMPLE		IC-4	205668	060818	060818	finished
30	2319228014	1	SAMPLE		IC-4	205668	060818	060818	finished
31	2319228015	1	SAMPLE		IC-4	205668	060818	060818	finished
32	2319228016	1	SAMPLE		IC-4	205668	060818	060818	finished
33	2319228017	1	SAMPLE		IC-4	205668	060818	060818	finished
34	2319228018	1	SAMPLE		IC-4	205668	060818	060818	finished
35	2319228019	1	SAMPLE		IC-4	205668	060818	060818	finished
36	2319228020	1	SAMPLE		IC-4	205668	060818	060818	finished
37	2754656	1	MB	LRB	IC-4	205669	060818	060818	finished
38	2754657	1	MRL	MRL	IC-4	205669	060818	060818	finished
39	2754658	1	CCVL	LFB	IC-4	205669	060818	060818	finished
40	2754659	1	LCS	QCS	IC-4	205669	060818	060818	finished
41	2319228021	1	SAMPLE		IC-4	205669	060818	060818	finished
42	2754660	1	MS		IC-4	205669	060818	060818	finished

43	2754661	1	MSD		IC-4	205669	060818	060818	finished
44	2319228022	1	SAMPLE		IC-4	205669	060818	060818	finished
45	2319228023	1	SAMPLE		IC-4	205669	060818	060818	finished
46	2319228024	1	SAMPLE		IC-4	205669	060818	060818	finished
47	2319228025	1	SAMPLE		IC-4	205669	060818	060818	finished
48	2319228026	1	SAMPLE		IC-4	205669	060818	060818	finished
49	2319228027	1	SAMPLE		IC-4	205669	060818	060818	finished
50	2319228028	1	SAMPLE		IC-4	205669	060818	060818	finished
1	2319228029	1	SAMPLE		IC-4	205669	060818	060818	finished
2	2319228030	1	SAMPLE		IC-4	205669	060818	060818	finished
3	2754662	1	CCVH		IC-4	205669	060818	060818	finished
4	2754663	1	MB		IC-4	205669	060818	060818	finished
5	2319228031	1	SAMPLE		IC-4	205669	060818	060818	finished
6	2754664	1	MS		IC-4	205669	060818	060818	finished
7	2754665	1	MSD		IC-4	205669	060818	060818	finished
8	2319228032	1	SAMPLE		IC-4	205669	060818	060818	finished
9	2319228033	1	SAMPLE		IC-4	205669	060818	060818	finished
10	2319228034	1	SAMPLE		IC-4	205669	060818	060818	finished
11	2319228035	1	SAMPLE		IC-4	205669	060818	060818	finished
12	2319228036	1	SAMPLE		IC-4	205669	060818	060818	finished
13	2319264001	1	SAMPLE		IC-4	205669	060818	060818	finished
14	2319265001	1	SAMPLE		IC-4	205669	060818	060818	finished
15	2319266001	1	SAMPLE		IC-4	205669	060818	060818	finished
16	2754666	1	MB	LRB	IC-4	205670	060818	060818	finished
17	2754667	1	MRL	MRL	IC-4	205670	060818	060818	finished
18	2754668	1	CCVL	LFB	IC-4	205670	060818	060818	finished
19	2754669	1	LCS	QCS	IC-4	205670	060818	060818	finished
20	2318858001	1	SAMPLE		IC-4	205670	060818	060818	finished
21	2754670	1	MS		IC-4	205670	060818	060818	finished
22	2754671	1	MSD		IC-4	205670	060818	060818	finished
23	2318861001	1	SAMPLE		IC-4	205670	060818	060818	finished
24	2318863001	1	SAMPLE		IC-4	205670	060818	060818	finished
25	2318863002	1	SAMPLE		IC-4	205670	060818	060818	finished
26	2318865001	1	SAMPLE		IC-4	205670	060818	060818	finished
27	2318917001	1	SAMPLE		IC-4	205670	060818	060818	finished
28	2318918001	1	SAMPLE		IC-4	205670	060818	060818	finished
29	2318918002	1	SAMPLE		IC-4	205670	060818	060818	finished
30	2754672	1	CCVH		IC-4	205670	060818	060818	finished
31	2754673	1	MB		IC-4	205670	060818	060818	finished
32	SHUTDOWN		MISC		IC-4	205670	060818	060818	finished

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2754646	06/08/18 05:03	MBW	1	205668	IC-4	[redacted]
8	2754647	06/08/18 05:49	MBW	1	205668	IC-4	[redacted]
9	2754648	06/08/18 06:39	MBW	1	205668	IC-4	[redacted]
10	2754649	06/08/18 05:31	MBW	1	205668	IC-4	[redacted]
11	2319228001	06/08/18 06:49	MBW	1	205668	IC-4	[redacted]
12	2754650	06/08/18 07:00	MBW	1	205668	IC-4	[redacted]
13	2754651	06/08/18 07:10	MBW	1	205668	IC-4	[redacted]
14	2319228002	06/08/18 07:20	MBW	1	205668	IC-4	[redacted]
15	2319228003	06/08/18 07:30	MBW	1	205668	IC-4	[redacted]
16	2319228004	06/08/18 07:41	MBW	1	205668	IC-4	[redacted]
17	2319228005	06/08/18 07:51	MBW	1	205668	IC-4	[redacted]
18	2319228006	06/08/18 08:02	MBW	1	205668	IC-4	[redacted]
19	2319228007	06/08/18 08:12	MBW	1	205668	IC-4	[redacted]
20	2319228008	06/08/18 08:22	MBW	1	205668	IC-4	[redacted]
21	2319228009	06/08/18 08:33	MBW	1	205668	IC-4	[redacted]
22	2319228010	06/08/18 08:43	MBW	1	205668	IC-4	[redacted]
23	2754652	06/08/18 08:54	MBW	1	205668	IC-4	[redacted]
24	2754653	06/08/18 09:04	MBW	1	205668	IC-4	[redacted]
25	2319228011	06/08/18 09:14	MBW	1	205668	IC-4	[redacted]
26	2754654	06/08/18 09:25	MBW	1	205668	IC-4	[redacted]
27	2754655	06/08/18 09:35	MBW	1	205668	IC-4	[redacted]
28	2319228012	06/08/18 09:46	MBW	1	205668	IC-4	[redacted]
29	2319228013	06/08/18 09:56	MBW	1	205668	IC-4	[redacted]
30	2319228014	06/08/18 10:06	MBW	1	205668	IC-4	[redacted]
31	2319228015	06/08/18 10:17	MBW	1	205668	IC-4	[redacted]
32	2319228016	06/08/18 10:27	MBW	1	205668	IC-4	[redacted]
33	2319228017	06/08/18 10:38	MBW	1	205668	IC-4	[redacted]
34	2319228018	06/08/18 10:48	MBW	1	205668	IC-4	[redacted]
35	2319228019	06/08/18 10:58	MBW	1	205668	IC-4	[redacted]
36	2319228020	06/08/18 11:09	MBW	1	205668	IC-4	[redacted]
37	2754656	06/09/18 04:32	MBW	1	205669	IC-4	[redacted]
38	2754657	06/09/18 04:42	MBW	1	205669	IC-4	[redacted]
39	2754658	06/09/18 05:34	MBW	1	205669	IC-4	[redacted]
40	2754659	06/09/18 05:44	MBW	1	205669	IC-4	[redacted]
41	2319228021	06/09/18 05:54	MBW	1	205669	IC-4	[redacted]
42	2754660	06/09/18 06:04	MBW	1	205669	IC-4	[redacted]
43	2754661	06/09/18 06:14	MBW	1	205669	IC-4	[redacted]
44	2319228022	06/09/18 06:25	MBW	1	205669	IC-4	[redacted]
45	2319228023	06/09/18 06:35	MBW	1	205669	IC-4	[redacted]
46	2319228024	06/09/18 06:46	MBW	1	205669	IC-4	[redacted]
47	2319228025	06/09/18 06:56	MBW	1	205669	IC-4	[redacted]
48	2319228026	06/09/18 07:06	MBW	1	205669	IC-4	[redacted]

49	2319228027	06/09/18 07:17	MBW	1	205669	IC-4	[redacted]
50	2319228028	06/09/18 07:27	MBW	1	205669	IC-4	
51	2319228029	06/09/18 07:38	MBW	1	205669	IC-4	
52	2319228030	06/09/18 07:48	MBW	1	205669	IC-4	
53	2754662	06/09/18 07:59	MBW	1	205669	IC-4	
54	2754663	06/09/18 08:09	MBW	1	205669	IC-4	
55	2319228031	06/09/18 08:19	MBW	1	205669	IC-4	
56	2754664	06/09/18 08:30	MBW	1	205669	IC-4	
57	2754665	06/09/18 08:40	MBW	1	205669	IC-4	
58	2319228032	06/09/18 08:50	MBW	1	205669	IC-4	
59	2319228033	06/09/18 09:00	MBW	1	205669	IC-4	
60	2319228034	06/09/18 09:10	MBW	1	205669	IC-4	
61	2319228035	06/09/18 09:20	MBW	1	205669	IC-4	
62	2319228036	06/09/18 09:30	MBW	1	205669	IC-4	
63	2319264001	06/09/18 09:40	MBW	1	205669	IC-4	
64	2319265001	06/09/18 09:49	MBW	1	205669	IC-4	
65	2319266001	06/09/18 09:59	MBW	1	205669	IC-4	
66	2754666	06/09/18 10:09	MBW	1	205670	IC-4	
67	2754667	06/09/18 10:19	MBW	1	205670	IC-4	
68	2754668	06/09/18 10:29	MBW	1	205670	IC-4	
69	2754669	06/09/18 10:39	MBW	1	205670	IC-4	
70	2318858001	06/09/18 10:49	MBW	1	205670	IC-4	
71	2754670	06/09/18 10:59	MBW	1	205670	IC-4	
72	2754671	06/09/18 11:09	MBW	1	205670	IC-4	
73	2318861001	06/09/18 11:18	MBW	1	205670	IC-4	
74	2318863001	06/09/18 11:28	MBW	1	205670	IC-4	
75	2318863002	06/09/18 11:38	MBW	1	205670	IC-4	
76	2318865001	06/09/18 11:48	MBW	1	205670	IC-4	
77	2318917001	06/09/18 11:58	MBW	1	205670	IC-4	
78	2318918001	06/09/18 12:08	MBW	1	205670	IC-4	
79	2318918002	06/09/18 12:18	MBW	1	205670	IC-4	
80	2754672	06/09/18 12:28	MBW	1	205670	IC-4	
81	2754673	06/09/18 12:38	MBW	1	205670	IC-4	
82	SHUTDOWN	06/09/18 12:48	MBW		205670	IC-4	n.a.

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No.: TLG017

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2754648	Hexavalent Chromium	CCVL	06/08/2018 06:39	5	4.6	92		85 - 115
2754652	Hexavalent Chromium	CCVH	06/08/2018 08:54	20	20.6	103		85 - 115
2754658	Hexavalent Chromium	CCVL	06/09/2018 05:34	5	4.5	91		85 - 115
2754662	Hexavalent Chromium	CCVH	06/09/2018 07:59	20	18.1	90.4		85 - 115
2754668	Hexavalent Chromium	CCVL	06/09/2018 10:29	5	4.6	91.2		85 - 115

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG017

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2754646	Hexavalent Chromium	MB	QC-Water	06/08/2018 05:03	0.25	U	ug/L
2754653	Hexavalent Chromium	MB	QC-Water	06/08/2018 09:04	0.25	U	ug/L
2754656	Hexavalent Chromium	MB	QC-Water	06/09/2018 04:32	0.25	U	ug/L
2754663	Hexavalent Chromium	MB	QC-Water	06/09/2018 08:09	0.25	U	ug/L
2754666	Hexavalent Chromium	MB	QC-Water	06/09/2018 10:09	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG017

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2754649	Hexavalent Chromium	LCS	06/08/2018 05:31	10	9.8	97.9		85 - 115
2754647	Hexavalent Chromium	MRL	06/08/2018 05:49	0.25	0.2	80.4		50 - 150
2754657	Hexavalent Chromium	MRL	06/09/2018 04:42	0.25	0.23	90.8		50 - 150
2754659	Hexavalent Chromium	LCS	06/09/2018 05:44	10	9.7	96.9		85 - 115
2754667	Hexavalent Chromium	MRL	06/09/2018 10:19	0.25	0.24	96.8		50 - 150
2754669	Hexavalent Chromium	LCS	06/09/2018 10:39	10	9.5	95.5		85 - 115

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Sample Description

SW39A

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG017
Units: ug/L
Lab Sample ID: 2319228001
Lab MS Sample ID: 2754650
Lab MSD Sample ID: 2754651

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	2.6	52.5	*	85 - 115

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.1	81.5	*	85 - 115	43.4	*	20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

SW43C

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG017
Units: ug/L
Lab Sample ID: 2319228011
Lab MS Sample ID: 2754654
Lab MSD Sample ID: 2754655

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	2.5	50.6	*	85 - 115

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.0	100		85 - 115	65.8	*	20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

SW37A

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG017
Units: ug/L
Lab Sample ID: 2319228021
Lab MS Sample ID: 2754660
Lab MSD Sample ID: 2754661

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	4.5	90.6		85 - 115

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.7	94.3		85 - 115	3.96		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Sample Description

SW45C

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG017
Units: ug/L
Lab Sample ID: 2319228031
Lab MS Sample ID: 2754664
Lab MSD Sample ID: 2754665

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	4.6	91.6		85 - 115

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.6	91.7		85 - 115	0.11		20

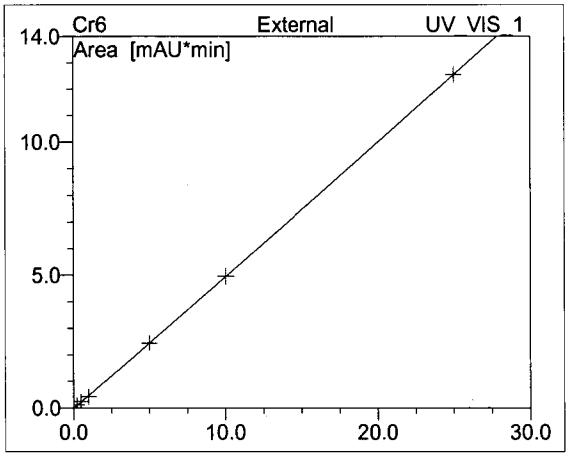
(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Calibration Batch Report

Sequence:	4-060818	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	060818
Ini. Date/Time:	06/08/18 05:49	Method:	218_6_060818



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.68	Cr6	0QOff	6	-0.022	0.495	0.000	99.9975
AVERAGE:					-0.0223	0.4945	0.0003	99.9975

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2319228001	ammonium hydroxide	X	lab
2319228002	ammonium hydroxide	X	lab
2319228003	ammonium hydroxide	X	lab
2319228004	ammonium hydroxide	X	lab
2319228005	ammonium hydroxide	X	lab
2319228006	ammonium hydroxide	X	lab
2319228007	ammonium hydroxide	X	lab
2319228008	ammonium hydroxide	X	lab
2319228009	ammonium hydroxide	X	lab
2319228010	ammonium hydroxide	X	lab
2319228011	ammonium hydroxide	X	lab
2319228012	ammonium hydroxide	X	lab
2319228013	ammonium hydroxide	X	lab
2319228014	ammonium hydroxide	X	lab
2319228015	ammonium hydroxide	X	lab
2319228016	ammonium hydroxide	X	lab
2319228017	ammonium hydroxide	X	lab
2319228018	ammonium hydroxide	X	lab
2319228019	ammonium hydroxide	X	lab
2319228020	ammonium hydroxide	X	lab
	MBW 6/9/18		

Date:	6.8.2018 2:25
Tech:	MBW

Queue:	WETC
Batch:	205668

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	CHW
Reviewed date:	6/12/18

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:205668|_D:6.8.2018 2:25

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2319228021	ammonium hydroxide	X	lab
2319228022	ammonium hydroxide	X	lab
2319228023	ammonium hydroxide	X	lab
2319228024	ammonium hydroxide	X	lab
2319228025	ammonium hydroxide	X	lab
2319228026	ammonium hydroxide	X	lab
2319228027	ammonium hydroxide	X	lab
2319228028	ammonium hydroxide	X	lab
2319228029	ammonium hydroxide	X	lab
2319228030	ammonium hydroxide	X	lab
2319228031	ammonium hydroxide	X	lab
2319228032	ammonium hydroxide	X	lab
2319228033	ammonium hydroxide	X	lab
2319228034	ammonium hydroxide	X	lab
2319228035	ammonium hydroxide	X	lab
2319228036	ammonium hydroxide	X	lab
	MBW	6/9/18	

Date:	6.8.2018 2:25
Tech:	MBW

Queue:	WETC
Batch:	205669

Reagent:	
Cr+6 Buffer:	N/A

Reviewed by:	
Reviewed date:	

Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC|_B:205669|_D:6.8.2018 2:25

TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **JULY 18, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
LOCKHEED MARTIN CORPORATION (LMC) – MARTIN STATE AIRPORT (MSA)
FROG MORTAR CREEK
SAMPLE DELIVERY GROUPS (SDGs) TLG-018 & TLG-019

SAMPLES: 4/Aqueous/Hexavalent Chromium

SDG TLG-018

DMW-8I-061918 MSA-MW-27D-061918

SDG TLG-019

DMW-6S-062018 MSA-MW-30D-062018

Overview

The sample set for LMC – MSA Frog Mortar Creek, SDGs TLG-018 & SDG TLG 019 consisted of four (4) aqueous environmental samples. All four (4) aqueous samples were analyzed for hexavalent chromium. No field duplicate pair was included in the SDGs.

The samples were collected by Tetra Tech, Inc. on June 19 & 20, 2018 and analyzed by ALS Environmental. All analyses were conducted in accordance with EPA Method 218.6 analytical and reporting protocols.

The data contained in these SDGs were validated with regard to the following parameters: data completeness, holding times and sample preservation, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, matrix spike/matrix spike duplicate results, chromatographic resolution, analyte quantitation, and detection limits. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The detected result reported for hexavalent chromium in sample MSA-MW-30D-062018 below the Reporting Limit (RL) but above the Method Detection Limit (MDL) was qualified as estimated, (J).

Notes

All samples were properly preserved to a pH of 9.0 – 9.5 and analyzed within 24 hours of sample receipt.

The non-detected results were reported to the Method Detection Limit (MDL).

Executive Summary

Laboratory Performance: None.

Other Factors Affecting Data Quality: A detected result below the RL was estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review" (January 2017). The text of this report has been formulated to address only those areas affecting data quality.

Tetra Tech, Inc.
Michelle L. Woeber
Chemist/Data Validator

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-8I-061918			MSA-MW-27D-061918		
SDG: TLG-018	LAB_ID	2321442002			2321442001		
FRACTION: MISC	SAMP_DATE	6/19/2018			6/19/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	DMW-6S-062018			MSA-MW-30D-062018		
SDG: TLG-019	LAB_ID	2321736001			2321736002		
FRACTION: MISC	SAMP_DATE	6/20/2018			6/20/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.21	J	P

Appendix B

Results as Reported by the Laboratory

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2321442 TLG018|112ICO8424

Lab ID: **2321442001** Date Collected: 6/19/2018 12:05 Matrix: Water

Sample ID: **MSA-MW-27D-061918** Date Received: 6/19/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/20/18 04:38	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2321442 TLG018|112ICO8424

Lab ID: **2321442002** Date Collected: 6/19/2018 10:45 Matrix: Water

Sample ID: **DMW-8I-061918** Date Received: 6/19/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/20/18 04:48	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2321736 TLG019|112ICO8424

Lab ID: **2321736001** Date Collected: 6/20/2018 12:35 Matrix: Water

Sample ID: **DMW-6S-062018** Date Received: 6/20/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/21/18 04:02	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2321736 TLG019|112ICO8424

Lab ID: **2321736002** Date Collected: 6/20/2018 14:32 Matrix: Water

Sample ID: **MSA-MW-30D-062018** Date Received: 6/20/2018 22:10

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	0.21J	J	ug/L	0.25	0.047	EPA 218.6		6/21/18 04:11	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Appendix C

Support Documentation

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

* 2 3 2 1 4 4 2 *

Co. Name: TEtra Tech Inc.

Contact (Report to): Tony Apanavage Phone:

Address: 20251 Century ~~Blvd~~ Blvd STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: 112IC08424 ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges. Date Required: Approved By:

Email? ☐ -Y

Fax? ☐ -Y No.:

***Container Type	P
***Container Size	125
*** Preservative	CR6

ANALYSES/METHOD REQUESTED

Hex Chrom

(completed by Sample Receiving)

Performed by: KM

Cooler Temp: 3 °C

Therm. ID: 408

No. of Coolers:

Notes:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis									Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1	~~DMW-2S-061918~~		6/19/18																	
2	MSA-MW-27D-061918		↓	1205	G	GW	1													
3	DMW-8I-061918		↓	1045	G	GW	1													
4																				
5																				
6																				
7																				
8																				

Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
Y	Y	Y	Y	Y
N	N	N	N	N
Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Walt Pryor

Project Comments: * 24 TAT *

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Pryor	6/19/18	1600	2	[signature]	6/19	1600
3	[signature]	6/19	1803	4	[signature]	6/19	1800
5	[signature]	6/19	2140	6	[signature]	6/19/18	2140
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ ____ new

EDDs Required? ☐ If yes, format type:

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐

State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐ Other

→Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-018

Sample Management

This report contains the results of the analysis of two (2) ground water samples collected on June 19, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 19, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Two (2) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/20/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2760817 and 2760819 were analyzed with the samples. Recoveries were within QC limits.

Spikes. Matrix spike and matrix spike duplicate analyses were not performed on any samples from this data deliverable.

TETRA TECH ISG
TtNUS Information Systems Group

Completion Ticket

On 6/22/2018 at 4:20 AM the following files were submitted to Tetra Tech by charles.blair@alsglobal.com with ALS:

2321442-A1.txt, 2321442-A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2018622_4373017232_ledd_ALS

You may print this page by clicking on the "Print This Page" button

Thank you for using the Data Checker, to upload more files click the "Upload/Check Files" link on navigation menu.

Print this Page | Back To Upload

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ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2321442 TLG018|112ICO8424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2321442 TLG018|112ICO8424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2321442001	MSA-MW-27D-061918	Water	6/19/2018 12:05	6/19/2018 21:40	Collected by Client
2321442002	DMW-8I-061918	Water	6/19/2018 10:45	6/19/2018 21:40	Collected by Client

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2321442 TLG018|112ICO8424

Lab ID	Sample ID	Analysis Method	Prep Method
2321442001	MSA-MW-27D-061918	EPA 218.6	
2321442002	DMW-8I-061918	EPA 218.6	

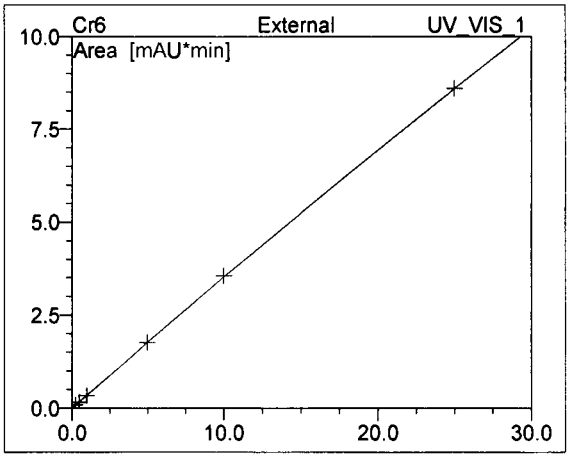
Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4		062018	062018	single
2	Cal Std 2	1	CAL		IC-4		062018	062018	single
3	Cal Std 3	1	CAL		IC-4		062018	062018	single
4	Cal Std 4	1	CAL		IC-4		062018	062018	single
5	Cal Std 5	1	CAL		IC-4		062018	062018	single
6	Cal Std 6	1	CAL		IC-4		062018	062018	single
7	2760816	1	MB	LRB	IC-4	206219	062018	062018	single
8	2760817	1	MRL	MRL	IC-4	206219	062018	062018	single
9	2760818	1	CCVL	LFB	IC-4	206219	062018	062018	single
10	2760819	1	LCS	QCS	IC-4	206219	062018	062018	single
11	2321295001	1	SAMPLE		IC-4	206219	062018	062018	single
12	2760820	1	MS		IC-4	206219	062018	062018	single
13	2760821	1	MSD		IC-4	206219	062018	062018	single
14	2321442001	1	SAMPLE		IC-4	206219	062018	062018	single
15	2321442002	1	SAMPLE		IC-4	206219	062018	062018	single
16	2760822	1	CCVH		IC-4	206219	062018	062018	single
17	2760823	1	MB		IC-4	206219	062018	062018	single
18	SHUTDOWN		MISC		IC-4	206219	062018	062018	single

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2760816	06/20/18 03:32	MBW	1	206219	IC-4	[redacted]
8	2760817	06/20/18 03:42	MBW	1	206219	IC-4	[redacted]
9	2760818	06/20/18 03:51	MBW	1	206219	IC-4	[redacted]
10	2760819	06/20/18 04:01	MBW	1	206219	IC-4	[redacted]
11	2321295001	06/20/18 04:10	MBW	1	206219	IC-4	[redacted]
12	2760820	06/20/18 04:19	MBW	1	206219	IC-4	[redacted]
13	2760821	06/20/18 04:29	MBW	1	206219	IC-4	[redacted]
14	2321442001	06/20/18 04:38	MBW	1	206219	IC-4	[redacted]
15	2321442002	06/20/18 04:48	MBW	1	206219	IC-4	[redacted]
16	2760822	06/20/18 04:57	MBW	1	206219	IC-4	[redacted]
17	2760823	06/20/18 05:06	MBW	1	206219	IC-4	[redacted]
18	SHUTDOWN	n.a.	MBW		206219	IC-4	n.a.

Calibration Batch Report

Sequence:	4-062018	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	062018
Inj. Date/Time:	06/20/18 03:42	Method:	218_6_062018



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.43	Cr6	0QOff	6	-0.016	0.361	-0.001	99.9982
AVERAGE:					-0.0161	0.3609	-0.0006	99.9982

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No.: TLG018

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2760818	Hexavalent Chromium	CCVL	06/20/2018 03:51	5	5.5	109		85 - 115
2760822	Hexavalent Chromium	CCVH	06/20/2018 04:57	20	20.6	103		85 - 115

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG018

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2760816	Hexavalent Chromium	MB	QC-Water	06/20/2018 03:32	0.25	U	ug/L
2760823	Hexavalent Chromium	MB	QC-Water	06/20/2018 05:06	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG018

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2760817	Hexavalent Chromium	MRL	06/20/2018 03:42	0.25	0.27	106		50 - 150
2760819	Hexavalent Chromium	LCS	06/20/2018 04:01	10	10.4	104		85 - 115

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Cr+6 218.6 pH Filtration Prep

Sample	Adjusted With	Final pH 9-9.5, SI units	0.4 µm Filtered
2321295001	none	X	field
2321442001	ammonium hydroxide	X	field
2321442002	ammonium hydroxide	X	field

MBW 6/20/18

[illegible] 2018 2:10	
Tech:	MBW

Quote:	WETC
Batch:	206219

[illegible]	
Cr+6 Buffer:	N/A

Reviewed [illegible]	CHW
Reviewed	6/20/18

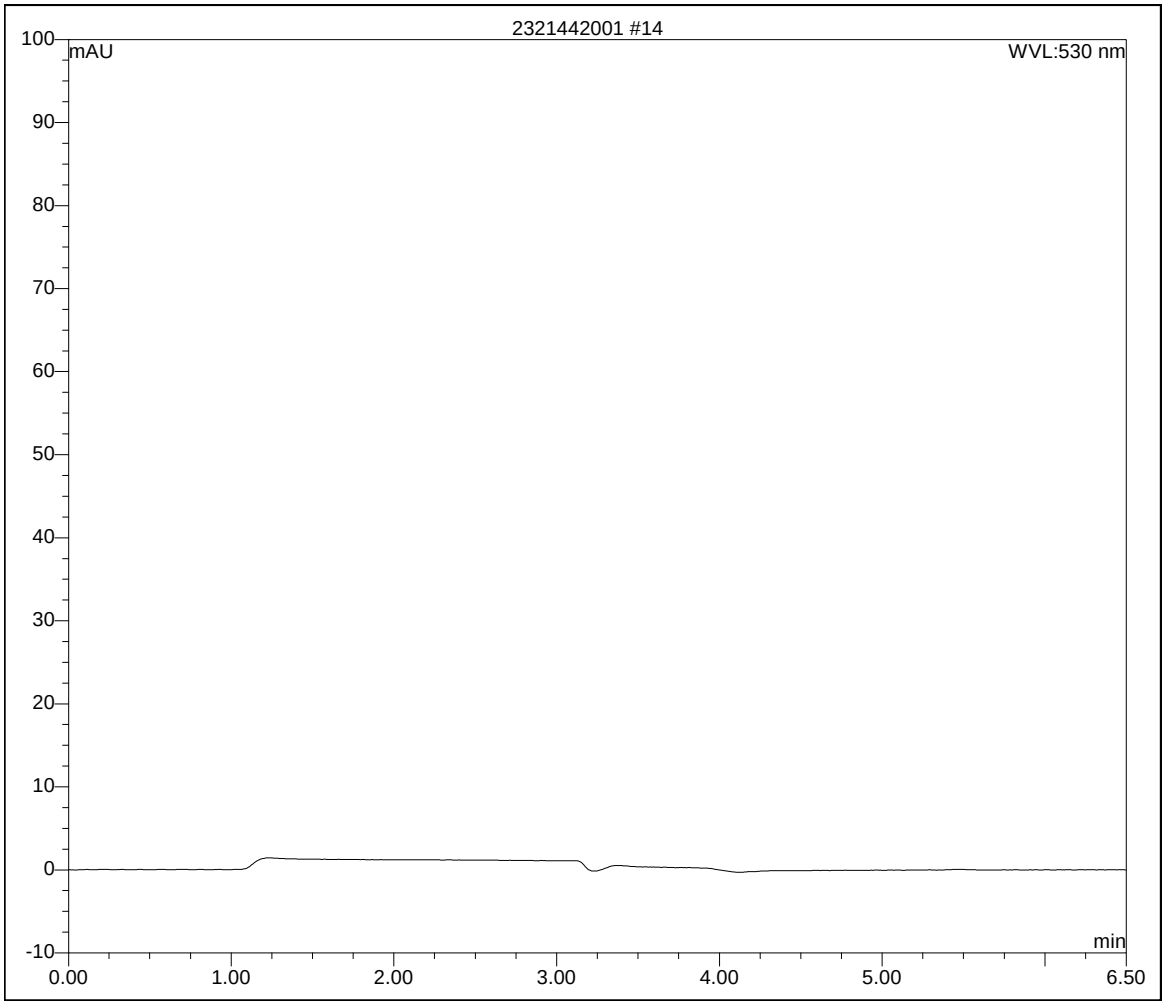
Comments:
An "X" in the Final pH column indicates that the sample pH is within this range.
Ammonium Hydroxide - 161014002

_Q:WETC_B:206[illegible] 2:10

Peak Integration Report

Sample Name:	**2321442001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/20/18 04:38**	*Batch:*	**206219**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062018**	*InitialCal:*	**062018**
Sequence2:		*Method:*	**218_6_062018**

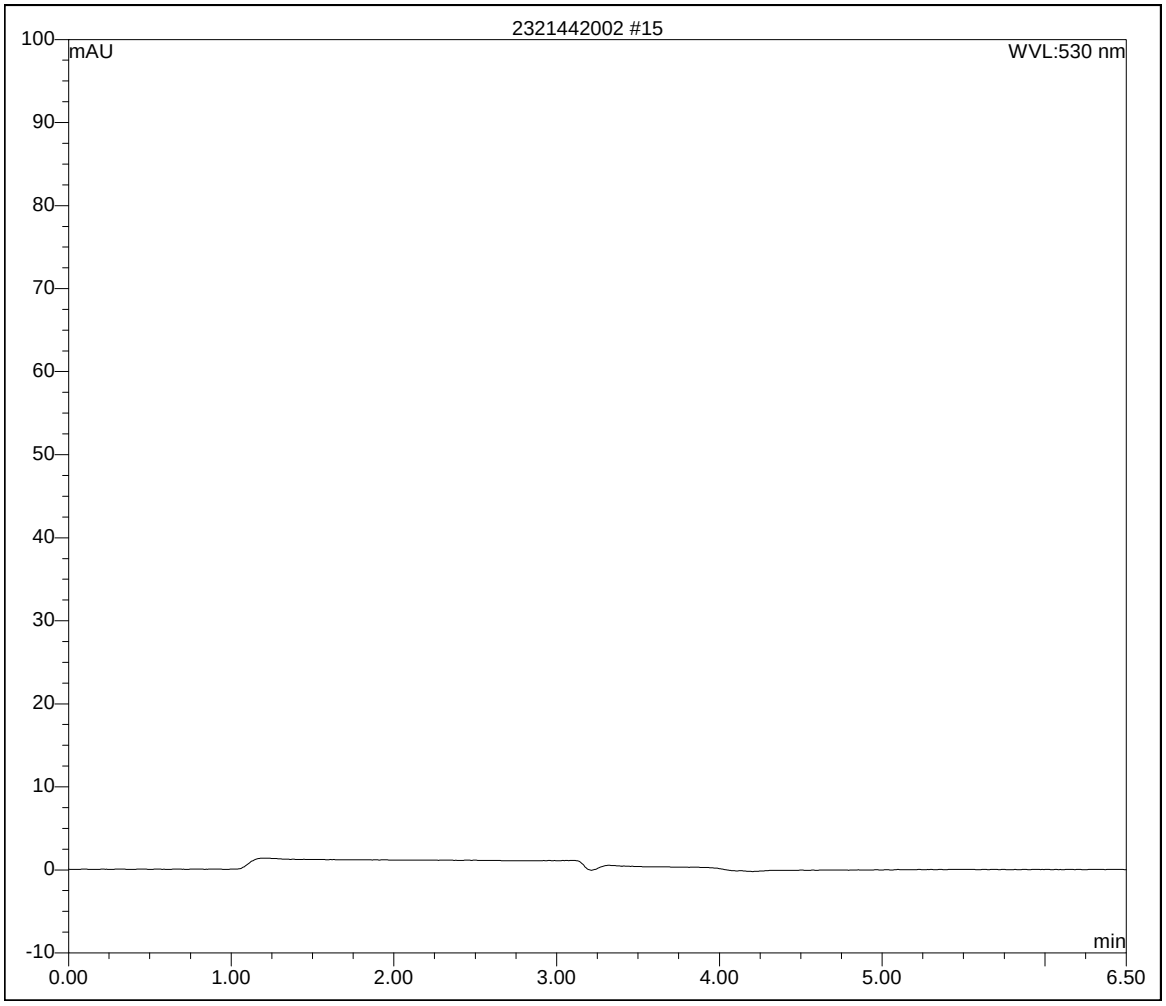
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2321442002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/20/18 04:48**	*Batch:*	**206219**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062018**	*InitialCal:*	**062018**
Sequence2:		*Method:*	**218_6_062018**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

2321736

Co. Name: Tetra Tech Inc

Contact (Report to): Tony Apanavage

Phone:

Address: 20251 Century Blvd. Germantown, MD 20874

Bill to (if different than Report to): Same

PO#:

Project Name/#: 112IC08424

ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? ☐ -Y

Fax? ☐ -Y No.:

***Container Type	P														
***Container Size	125														
*** Preservative	Cr6														
ANALYSES/METHOD REQUESTED															
						Hex Chrom (218.6)									
Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis									
1 DMW-6s-062018		6/20/18	1235	G	GW	1									
2 MSA-MW-30D-062018		↓	1432			1									
3															
4															
5															
6															
7															
8															

Receipt Information (completed by Sample Receiving)

Performed by: [signature]

Cooler Temp: 4°C

Therm. ID: 402

No. of Coolers:

Notes:

Sample Description/Location	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1 DMW-6s-062018	Y	Y	Y	Y	Y
2 MSA-MW-30D-062018	N	N	N	N	N
3	Y	Y	Y	Y	Y
4					
5					
6					
7					
8					

Correct containers? Y N

Correct sample volume? Y N

Correct preservation? Y N

Headspace/Volatiles? Y N

Circle appropriate Y or N.

SAMPLED BY (Please Print): Walt Pryon

Project Comments: * 24 hr TAT *

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	6/20/18	1520	2 [signature]	6/20	1520
3 [signature]	6/20	1700	4 [signature]	6-20	1800
5 [signature]	6-20	2210	6 [signature] ALS	6/20/18	2210
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other

EDDs Required? ☐ If yes, format type:

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐

State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐

Other

Enter PWSID No.

DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-019

Sample Management

This report contains the results of the analysis of two (2) ground water samples collected on June 20, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 20, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Two (2) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/20/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2761663 and 2761665 were analyzed with the samples. Recoveries were within QC limits.

Spikes. Matrix spike and matrix spike duplicate analyses identified as 2761666/2761667 were performed on sample 2321736002 (MSA-MW-30D-062018). All recoveries were within the QC limits of 85-115% with a calculated RPD of 20%.

TETRA TECH ISG
TtNUS, Information Systems Group

Completion Ticket

On 6/22/2018 at 4:26 AM the following files were submitted to Tetra Tech by charles.blair@alsglobal.com with ALS:

2321736-A1.txt, 2321736-A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2018622_73693464_ledd_ALS

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ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2321736 TLG019|112ICO8424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2321736001	DMW-6S-062018	Water	6/20/2018 12:35	6/20/2018 22:10	Collected by Client
2321736002	MSA-MW-30D-062018	Water	6/20/2018 14:32	6/20/2018 22:10	Collected by Client

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SAMPLE SUMMARY

Workorder: 2321736 TLG019|112ICO8424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2321736 TLG019|112ICO8424

Lab ID	Sample ID	Analysis Method	Prep Method
2321736001	DMW-6S-062018	EPA 218.6	
2321736002	MSA-MW-30D-062018	EPA 218.6	

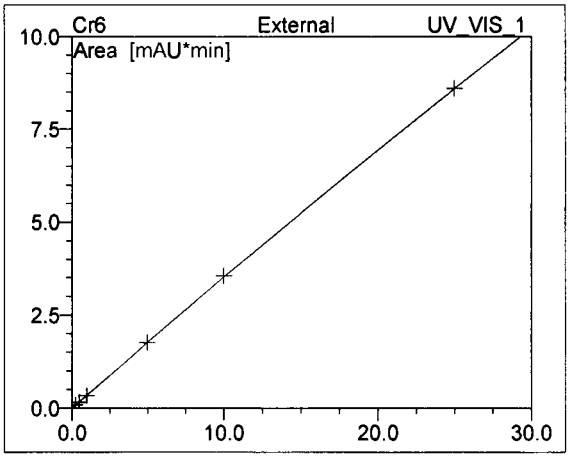
Pos	Name	lutionFac	*SampleType	Comment	*Instrument	*Batch	*Sequence1	*InitialCal	Status
1	Cal Std 1	1	CAL		IC-4	n.a.	062018	062018	finished
2	Cal Std 2	1	CAL		IC-4	n.a.	062018	062018	finished
3	Cal Std 3	1	CAL		IC-4	n.a.	062018	062018	finished
4	Cal Std 4	1	CAL		IC-4	n.a.	062018	062018	finished
5	Cal Std 5	1	CAL		IC-4	n.a.	062018	062018	finished
6	Cal Std 6	1	CAL		IC-4	n.a.	062018	062018	finished
1	2761662	1	MB	LRB	IC-4	206284	062118	062018	single
2	2761663	1	MRL	MRL	IC-4	206284	062118	062018	single
3	2761664	1	CCVL	LFB	IC-4	206284	062118	062018	single
4	2761665	1	LCS	QCS	IC-4	206284	062118	062018	single
5	2321736001	1	SAMPLE		IC-4	206284	062118	062018	single
6	2321736002	1	SAMPLE		IC-4	206284	062118	062018	single
7	2761666	1	MS		IC-4	206284	062118	062018	single
8	2761667	1	MSD		IC-4	206284	062118	062018	single
9	2761668	1	CCVH		IC-4	206284	062118	062018	single
10	2761669	1	MB		IC-4	206284	062118	062018	single
11	SHUTDOWN		MISC		IC-4	206284	062118	062018	single

ANION SUMMARY REPORT

No.	Name	Time	*Analyst	lutionFac	*Batch	*Instrument	Amount Cr6 UV_VIS_1
7	2761662	06/21/18 03:12	MBW	1	206284	IC-4	n.a.
8	2761663	06/21/18 03:34	MBW	1	206284	IC-4	0.260
9	2761664	06/21/18 03:43	MBW	1	206284	IC-4	5.355
10	2761665	06/21/18 03:52	MBW	1	206284	IC-4	10.448
11	2321736001	06/21/18 04:02	MBW	1	206284	IC-4	n.a.
12	2321736002	06/21/18 04:11	MBW	1	206284	IC-4	0.209
13	2761666	06/21/18 04:21	MBW	1	206284	IC-4	5.610
14	2761667	06/21/18 04:30	MBW	1	206284	IC-4	5.691
15	2761668	06/21/18 04:39	MBW	1	206284	IC-4	21.642
16	2761669	06/21/18 04:49	MBW	1	206284	IC-4	n.a.
17	SHUTDOWN	n.a.	MBW		206284	IC-4	n.a.

Calibration Batch Report

Sequence:	4-062018	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	062018
Inj. Date/Time:	06/20/18 03:42	Method:	218_6_062018



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.43	Cr6	0QOff	6	-0.016	0.361	-0.001	99.9982
AVERAGE:					-0.0161	0.3609	-0.0006	99.9982

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No.: TLG019

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2761664	Hexavalent Chromium	CCVL	06/21/2018 03:43	5	5.4	107		85 - 115
2761668	Hexavalent Chromium	CCVH	06/21/2018 04:39	20	21.6	108		85 - 115

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG019

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2761662	Hexavalent Chromium	MB	QC-Water	06/21/2018 03:12	0.25	U	ug/L
2761669	Hexavalent Chromium	MB	QC-Water	06/21/2018 04:49	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG019

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2761663	Hexavalent Chromium	MRL	06/21/2018 03:34	0.25	0.26	104		50 - 150
2761665	Hexavalent Chromium	LCS	06/21/2018 03:52	10	10.4	104		85 - 115

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Sample Description

MSA-MW-30D-062018

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG019
Units: ug/L
Lab Sample ID: 2321736002
Lab MS Sample ID: 2761666
Lab MSD Sample ID: 2761667

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.21	5.6	108		85 - 115

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.7	110		85 - 115	1.43		20

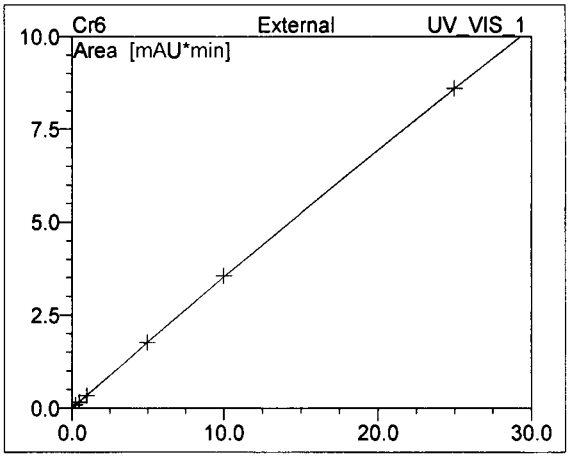
(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Calibration Batch Report

Sequence:	4-062018	Instrument:	IC-4
Instrument Method:	cr+6	InitialCal:	062018
Inj. Date/Time:	06/20/18 03:42	Method:	218_6_062018

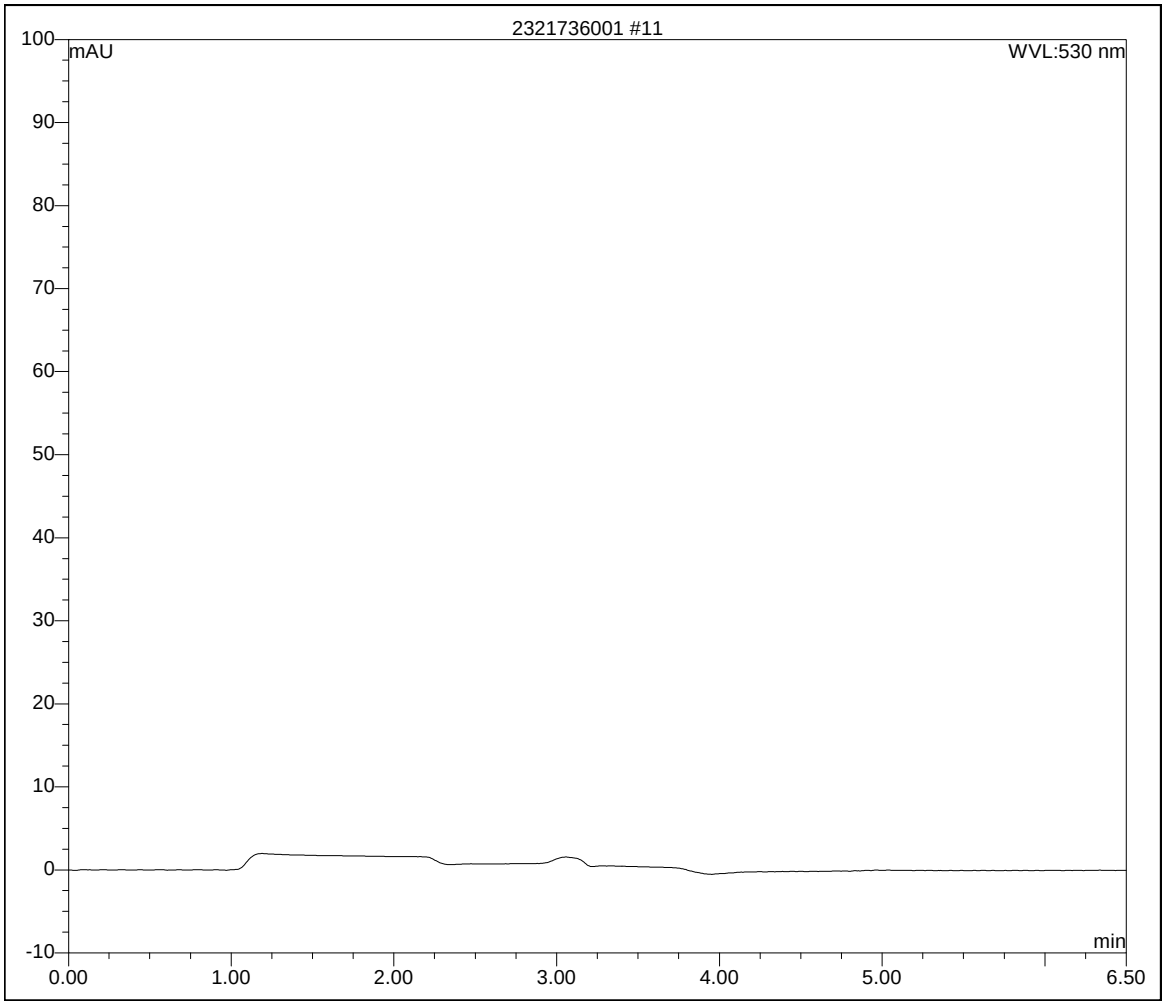


No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
1	5.43	Cr6	0QOff	6	-0.016	0.361	-0.001	99.9982
AVERAGE:					-0.0161	0.3609	-0.0006	99.9982

Peak Integration Report

Sample Name:	**2321736001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/21/18 04:02**	*Batch:*	**206284**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062118**	*InitialCal:*	**062018**
Sequence2:		*Method:*	**218_6_062018**

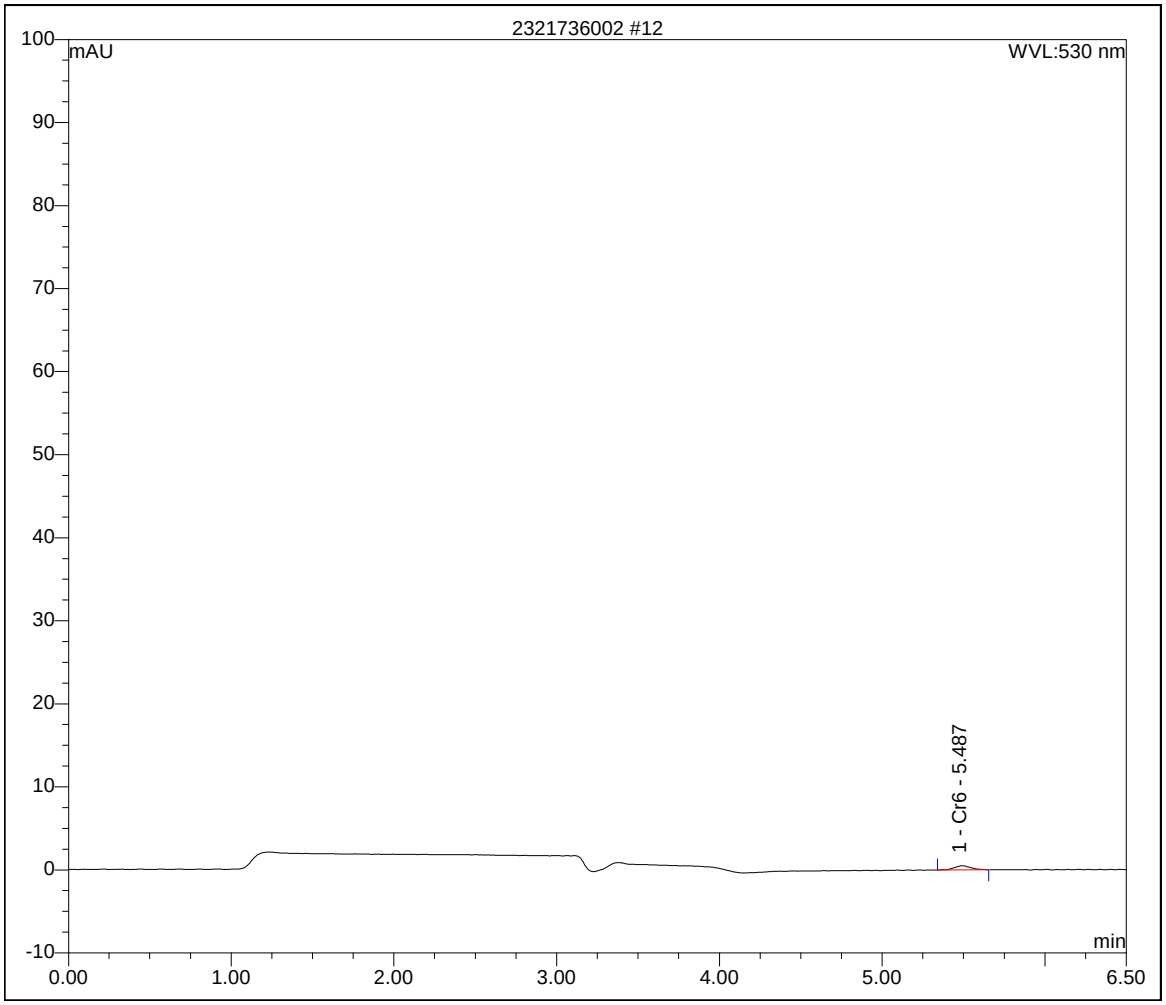
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
n.a.	n.a.	Cr6	n.a.	n.a.	n.a.
		TOTAL:	0.00	0.00	0.00



Peak Integration Report

Sample Name:	**2321736002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/21/18 04:11**	*Batch:*	**206284**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062118**	*InitialCal:*	**062018**
Sequence2:		*Method:*	**218_6_062018**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.49	Cr6	0.059	0.507	0.21
		TOTAL:	0.06	0.51	0.21



TETRA TECH INTERNAL CORRESPONDENCE

TO: **M. MARTIN** **DATE:** **AUGUST 09, 2018**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – HEXAVALENT CHROMIUM**
MSA – GROUNDWATER – FULL REVIEW
SAMPLE DELIVERY GROUPS (SDGs) TLG-020, TLG-021, TLG-022, TLG-023, TLG-024, TLG-025, AND TLG-027

SAMPLES: 3 / Aqueous / Hexavalent Chromium / SDG TLG-020

DMW-3S-062118 MSA-MW-14D-062218 MSA-MW-31D-062218

6 / Aqueous / Hexavalent Chromium / SDG TLG-021

MSA-MW-50D-062618 MSA-MW-50I-062618 MSA-MW-50S-062618
MSA-MW-52D-062618 MSA-MW-52I-062618 MSA-MW-52S-062618

6 / Aqueous / Hexavalent Chromium / SDG TLG-022

MSA-MW-47D-062718 MSA-MW-47I-062718 MSA-MW-47S-062718
MSA-MW-51D-062718 MSA-MW-51I-062718 MSA-MW-51S-062718

6 / Aqueous / Hexavalent Chromium / SDG TLG-023

MSA-MW-46D-062818 MSA-MW-46I-062818 MSA-MW-46S-062818
MSA-MW-49D-062818 MSA-MW-49I-062818 MSA-MW-49S-062818

3 / Aqueous / Hexavalent Chromium / SDG TLG-024

MSA-MW-48D-062918 MSA-MW-48I-062918 MSA-MW-48S-062918

4 / Aqueous / Hexavalent Chromium / SDG TLG-025

DMW-16D-070218 DMW-17D-070218 MSA-MW-53S-070218
MSA-MW-53I-070218

1 / Aqueous / Hexavalent Chromium / SDG TLG-027

MSA-MW-29D-070918

OVERVIEW

The sample set for MSA Groundwater, SDGs TGL-020, TLG-021, TLG-022, TLG-023, TLG-024, TLG-025, and TLG-027, consists of twenty-nine (29) aqueous environmental samples. Samples were analyzed for hexavalent chromium. No field duplicate pairs are included in this SDG.

The samples were collected by Tetra Tech on June 21, 22, 26, 27, 28, and 29, and July 02 and 09, 2018, and analyzed by ALS Environmental. Analyses were conducted in accordance to Method 218.6 analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness,

holding times, initial/continuing calibrations, laboratory method blank results, laboratory control sample results, matrix spike/matrix spike duplicate results, analyte identification, analyte quantitation, and detection limits.

Areas of concern with respect to data quality are listed below.

MAJOR PROBLEMS

- None.

MINOR PROBLEMS

- Sample DMW-3S-062118 was analyzed one day outside of the 24-hour analysis holding time limit. The non-detected result for hexavalent chromium was qualified as estimated (UJ) in this sample.

- Detected results less than the reporting limit (RL) but greater than the method detection limit (MDL) were qualified as estimated due to uncertainty near the detection limit.

NOTES

Non-detected results were reported to the MDL.

Sample MSA-MW-53S-070218 was listed as MSA-MW-53-070218 in the laboratory report and in the database. This sample identifier was changed to MSA-MW-53S-070218 on the laboratory Form I report and in the database by the data reviewer to match the chain of custody.

The laboratory case narrative reports for the SDGs state that the holding time limit is 14 days for the samples in this SDG; however, the chain of custody reports indicate that a 24-hour holding time limit was required. The samples were evaluated for a 24-hour holding time limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: One non-detected result was qualified due to holding time noncompliance.

Other Factors Affecting Data Quality: Detected results less than the RL but greater than the MDL were qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Inorganic Superfund Methods Data Review” (January 2017). The text of this report has been formulated to address only those problem areas affecting data quality.

Leigh A. Ciofani

Tetra Tech
Leigh A. Ciofani
Environmental Scientist/Data Validator

Joseph A. Samchuck

Tetra Tech
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted detection limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team, but exclusion of the data is recommended.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08424	NSAMPLE	DMW-3S-062118			MSA-MW-14D-062218			MSA-MW-31D-062218		
SDG: TLG-020	LAB_ID	2322318001			2322318002			2322318003		
FRACTION: MISC	SAMP_DATE	6/21/2018			6/22/2018			6/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	UJ	H	4.8			0.17	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-50D-062618			MSA-MW-50I-062618			MSA-MW-50S-062618			MSA-MW-52D-062618		
SDG: TLG-021	LAB_ID	2322796001			2322796002			2322796003			2322796006		
FRACTION: MISC	SAMP_DATE	6/26/2018			6/26/2018			6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-52I-062618			MSA-MW-52S-062618		
SDG: TLG-021	LAB_ID	2322796005			2322796004		
FRACTION: MISC	SAMP_DATE	6/26/2018			6/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-47D-062718			MSA-MW-47I-062718			MSA-MW-47S-062718			MSA-MW-51D-062718		
SDG: TLG-022	LAB_ID	2323050006			2323050005			2323050004			2323050001		
FRACTION: MISC	SAMP_DATE	6/27/2018			6/27/2018			6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		2.8		

PROJ_NO: 08424	NSAMPLE	MSA-MW-51I-062718			MSA-MW-51S-062718		
SDG: TLG-022	LAB_ID	2323050002			2323050003		
FRACTION: MISC	SAMP_DATE	6/27/2018			6/27/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.2	J	P	0.12	J	P

PROJ_NO: 08424	NSAMPLE	MSA-MW-46D-062818			MSA-MW-46I-062818			MSA-MW-46S-062818			MSA-MW-49D-062818		
SDG: TLG-023	LAB_ID	2323302006			2323302005			2323302004			2323302001		
FRACTION: MISC	SAMP_DATE	6/28/2018			6/28/2018			6/28/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-49I-062818			MSA-MW-49S-062818		
SDG: TLG-023	LAB_ID	2323302002			2323302003		
FRACTION: MISC	SAMP_DATE	6/28/2018			6/28/2018		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-48D-062918			MSA-MW-48I-062918			MSA-MW-48S-062918		
SDG: TLG-024	LAB_ID	2323634001			2323634002			2323634003		
FRACTION: MISC	SAMP_DATE	6/29/2018			6/29/2018			6/29/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U		0.047	U		0.085	J	P

PROJ_NO: 08424	NSAMPLE	DMW-16D-070218			DMW-17D-070218			MSA-MW-53I-070218			MSA-MW-53S-070218		
SDG: TLG-025	LAB_ID	2323898001			2323898004			2323898003			2323898002		
FRACTION: MISC	SAMP_DATE	7/2/2018			7/2/2018			7/2/2018			7/2/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.14	J	P	0.11	J	P	0.047	U		0.047	U	

PROJ_NO: 08424	NSAMPLE	MSA-MW-29D-070918		
SDG: TLG-027	LAB_ID	2325108001		
FRACTION: MISC	SAMP_DATE	7/9/2018		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
HEXAVALENT CHROMIUM		0.047	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

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ANALYTICAL RESULTS

Workorder: 2322318 TLG020|112IC08424

Lab ID: **2322318001** Date Collected: 6/21/2018 13:05 Matrix: Water
Sample ID: **DMW-3S-062118** Date Received: 6/22/2018 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/23/18 09:06	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322318 TLG020|112IC08424

Lab ID: **2322318002** Date Collected: 6/22/2018 09:05 Matrix: Water

Sample ID: **MSA-MW-14D-062218** Date Received: 6/22/2018 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	4.8		ug/L	0.25	0.047	EPA 218.6		6/23/18 09:15	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322318 TLG020|112IC08424

Lab ID: **2322318003** Date Collected: 6/22/2018 14:51 Matrix: Water
Sample ID: **MSA-MW-31D-062218** Date Received: 6/22/2018 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.17J	J	ug/L	0.25	0.047	EPA 218.6		6/23/18 09:25	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796001** Date Collected: 6/26/2018 09:22 Matrix: Water

Sample ID: **MSA-MW-50D-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 02:48	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796002** Date Collected: 6/26/2018 11:53 Matrix: Water

Sample ID: **MSA-MW-50I-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 03:16	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796003** Date Collected: 6/26/2018 14:05 Matrix: Water

Sample ID: **MSA-MW-50S-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 03:26	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796006** Date Collected: 6/26/2018 11:20 Matrix: Water

Sample ID: **MSA-MW-52D-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 03:54	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796005** Date Collected: 6/26/2018 10:10 Matrix: Water

Sample ID: **MSA-MW-52I-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 03:45	MBW	A

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ANALYTICAL RESULTS

Workorder: 2322796 TLG021|112ICO8424

Lab ID: **2322796004** Date Collected: 6/26/2018 09:05 Matrix: Water
Sample ID: **MSA-MW-52S-062618** Date Received: 6/26/2018 21:30

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/27/18 03:35	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050006** Date Collected: 6/27/2018 12:40 Matrix: Water

Sample ID: **MSA-MW-47D-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/28/18 04:29	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050005** Date Collected: 6/27/2018 11:00 Matrix: Water

Sample ID: **MSA-MW-47I-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/28/18 04:19	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050004** Date Collected: 6/27/2018 09:40 Matrix: Water

Sample ID: **MSA-MW-47S-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/28/18 04:10	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050001** Date Collected: 6/27/2018 09:55 Matrix: Water

Sample ID: **MSA-MW-51D-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	2.8		ug/L	0.25	0.047	EPA 218.6		6/28/18 03:23	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050002** Date Collected: 6/27/2018 11:17 Matrix: Water

Sample ID: **MSA-MW-51I-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	0.20J	J	ug/L	0.25	0.047	EPA 218.6		6/28/18 03:51	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050003** Date Collected: 6/27/2018 13:50 Matrix: Water

Sample ID: **MSA-MW-51S-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.12J	J	ug/L	0.25	0.047	EPA 218.6		6/28/18 04:01	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302006** Date Collected: 6/28/2018 13:20 Matrix: Water

Sample ID: **MSA-MW-46D-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 07:12	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302005** Date Collected: 6/28/2018 11:40 Matrix: Water

Sample ID: **MSA-MW-46I-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 07:03	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302004** Date Collected: 6/28/2018 10:35 Matrix: Water

Sample ID: **MSA-MW-46S-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 06:53	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302001** Date Collected: 6/28/2018 09:57 Matrix: Water

Sample ID: **MSA-MW-49D-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 05:36	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302002** Date Collected: 6/28/2018 11:30 Matrix: Water

Sample ID: **MSA-MW-49I-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 06:34	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID: **2323302003** Date Collected: 6/28/2018 14:05 Matrix: Water

Sample ID: **MSA-MW-49S-062818** Date Received: 6/28/2018 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/29/18 06:44	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID: **2323634001** Date Collected: 6/29/2018 08:50 Matrix: Water

Sample ID: **MSA-MW-48D-062918** Date Received: 6/29/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/30/18 05:29	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID: **2323634002** Date Collected: 6/29/2018 11:21 Matrix: Water
Sample ID: **MSA-MW-48I-062918** Date Received: 6/29/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		6/30/18 05:38	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID: **2323634003** Date Collected: 6/29/2018 13:00 Matrix: Water
Sample ID: **MSA-MW-48S-062918** Date Received: 6/29/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.085J	J	ug/L	0.25	0.047	EPA 218.6		6/30/18 05:48	MBW	A

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ANALYTICAL RESULTS

Workorder: 2323898 TLG025|112JC08424

Lab ID: **2323898001** Date Collected: 7/2/2018 09:00 Matrix: Water

Sample ID: **DMW-16D-070218** Date Received: 7/2/2018 20:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.14J	J	ug/L	0.25	0.047	EPA 218.6		7/3/18 03:02	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323898 TLG025|112JC08424

Lab ID: **2323898004** Date Collected: 7/2/2018 14:05 Matrix: Water

Sample ID: **DMW-17D-070218** Date Received: 7/2/2018 20:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Hexavalent Chromium	0.11J	J	ug/L	0.25	0.047	EPA 218.6		7/3/18 03:49	MBW	A

Vanessa N. Badman

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323898 TLG025|112JC08424

Lab ID: **2323898003** Date Collected: 7/2/2018 13:25 Matrix: Water
Sample ID: **MSA-MW-53I-070218** Date Received: 7/2/2018 20:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		7/3/18 03:40	MBW	A

Vanessa N. Badman

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323898 TLG025|112JC08424

Lab ID: **2323898002** MSA-MW-53S-070218 L.C. 08/09/18 Date Collected: 7/2/2018 11:55 Matrix: Water

Sample ID: ~~**MSA-MW-53-070218**~~ Date Received: 7/2/2018 20:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		7/3/18 03:30	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2325108 TLG027|112IC08424

Lab ID: **2325108001** Date Collected: 7/9/2018 14:50 Matrix: Water

Sample ID: **MSA-MW-29D-070918** Date Received: 7/9/2018 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	ND		ug/L	0.25	0.047	EPA 218.6		7/10/18 09:52	MBW	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

APPENDIX C

SUPPORT DOCUMENTATION

Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-020

Sample Management

This report contains the results of the analysis of three (3) ground water samples collected on June 21-22, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 22, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Three (3) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/23/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2763173 and 2763175 were analyzed with the samples. Recoveries were within QC limits.

Spikes. Matrix spike and matrix spike duplicate analysis was not performed on any samples from this data deliverable.

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P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:

Tracking #:

* 2 3 2 2 3 1 8 *

Co. Name: Tetra Tech INC

Contact (Report to): Tony Apanavage

Phone: 301 528-3021

Address: 20251 Century Blvd
Germantown, MD 20874

Bill to (if different than Report to): Same

PO#:

Project Name/#: 112IC08424

ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? ☐ -Y

Fax? ☐ -Y No.:

***Container Type	Poly
***Container Size	125
*** Preservative	CR6

ANALYSES/METHOD REQUESTED

Hex Chrom (218.6)

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)
1	DMW-3s-062118		6/21/18	1305	G	GW	1
2	MSA-MW-14D-062218		6/22/18	0905	↓	↓	1
3	MSA-MW-3CD-062218		6/22/18	1451	↓	↓	1
4							
5							
6							
7							
8							

Receipt Information (completed by Sample Receiving)

Performed by: [illegible]

Cooler Temp: 1°C

Therm. ID: 402

No. of Coolers:

Notes:

Sample	Custody seals Present?	(if present) Seals intact?	Received on Ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	Y	N	N	N
3	Y	Y	Y	Y	Y
4					
5					
6					
7					
8					

Correct containers? Y N

Correct sample volume? Y N

Correct preservation? Y N

Headspace/Volatiles? Y N

Circle appropriate Y or N.

SAMPLED BY (Please Print): Walt Payon

Project Comments: * 24 hr TAT *

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Pa	6/21/18	1505	2	[illegible]	6/22	1505
3	[illegible]	6/22	1611	4	[illegible]	6/22	1830
5	[illegible]	6/22	2040	6	[illegible] ALS	6/22/18	2040
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ (ccw)

EDDs Required? ☐ If yes, format type:

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐

State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐ Other

DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2322318 TLG020|112IC08424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2322318001	DMW-3S-062118	Water	6/21/2018 13:05	6/22/2018 20:40	Collected by Client
2322318002	MSA-MW-14D-062218	Water	6/22/2018 09:05	6/22/2018 20:40	Collected by Client
2322318003	MSA-MW-31D-062218	Water	6/22/2018 14:51	6/22/2018 20:40	Collected by Client

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2322318 TLG020|112IC08424

Lab ID	Sample ID	Analysis Method	Prep Method
2322318001	DMW-3S-062118	EPA 218.6	
2322318002	MSA-MW-14D-062218	EPA 218.6	
2322318003	MSA-MW-31D-062218	EPA 218.6	

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2322318 TLG020|112IC08424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

Hexavalent Chromium by Method 218.6 Summary Forms

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG020

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2763172	Hexavalent Chromium	MB	QC-Water	06/23/2018 05:30	0.25	U	ug/L
2763179	Hexavalent Chromium	MB	QC-Water	06/23/2018 08:09	0.25	U	ug/L
2763183	Hexavalent Chromium	MB	QC-Water	06/23/2018 09:53	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG020

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2763174	Hexavalent Chromium	CCVL	06/23/2018 05:48	5	5.1	102		90 - 110
2763178	Hexavalent Chromium	CCVH	06/23/2018 08:00	20	18.1	90.7		90 - 110
2763182	Hexavalent Chromium	CCVL	06/23/2018 09:43	5	5.1	102		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG020

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2763173	Hexavalent Chromium	MRL	06/23/2018 05:39	0.25	0.25	99.6		50 - 150
2763175	Hexavalent Chromium	LCS	06/23/2018 05:58	10	9.4	93.6		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No. TLG020

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2763174	Hexavalent Chromium	CCVL	06/23/2018 05:48	5	5.1	102		90 - 110
2763178	Hexavalent Chromium	CCVH	06/23/2018 08:00	20	18.1	90.7		90 - 110
2763182	Hexavalent Chromium	CCVL	06/23/2018 09:43	5	5.1	102		90 - 110

(1) The following qualifiers are used:

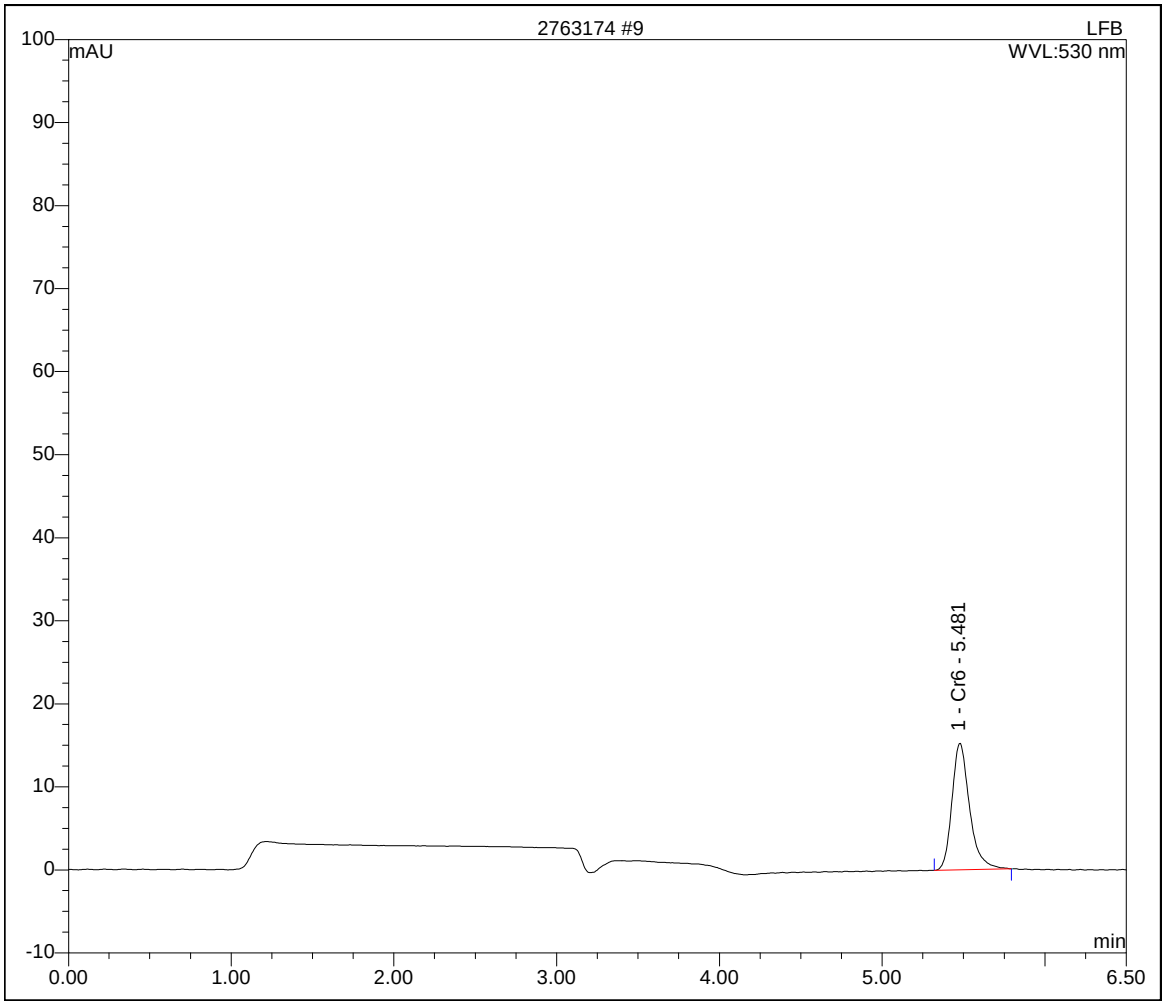
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2763174**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/23/18 05:48**	*Batch:*	**206419**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062318**	*InitialCal:*	**063218**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.48	Cr6	1.912	15.222	5.12
		TOTAL:	1.91	15.22	5.12



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG020

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2763173	Hexavalent Chromium	MRL	06/23/2018 05:39	0.25	0.25	99.6		50 - 150
2763175	Hexavalent Chromium	LCS	06/23/2018 05:58	10	9.4 ✓	93.6		90 - 110

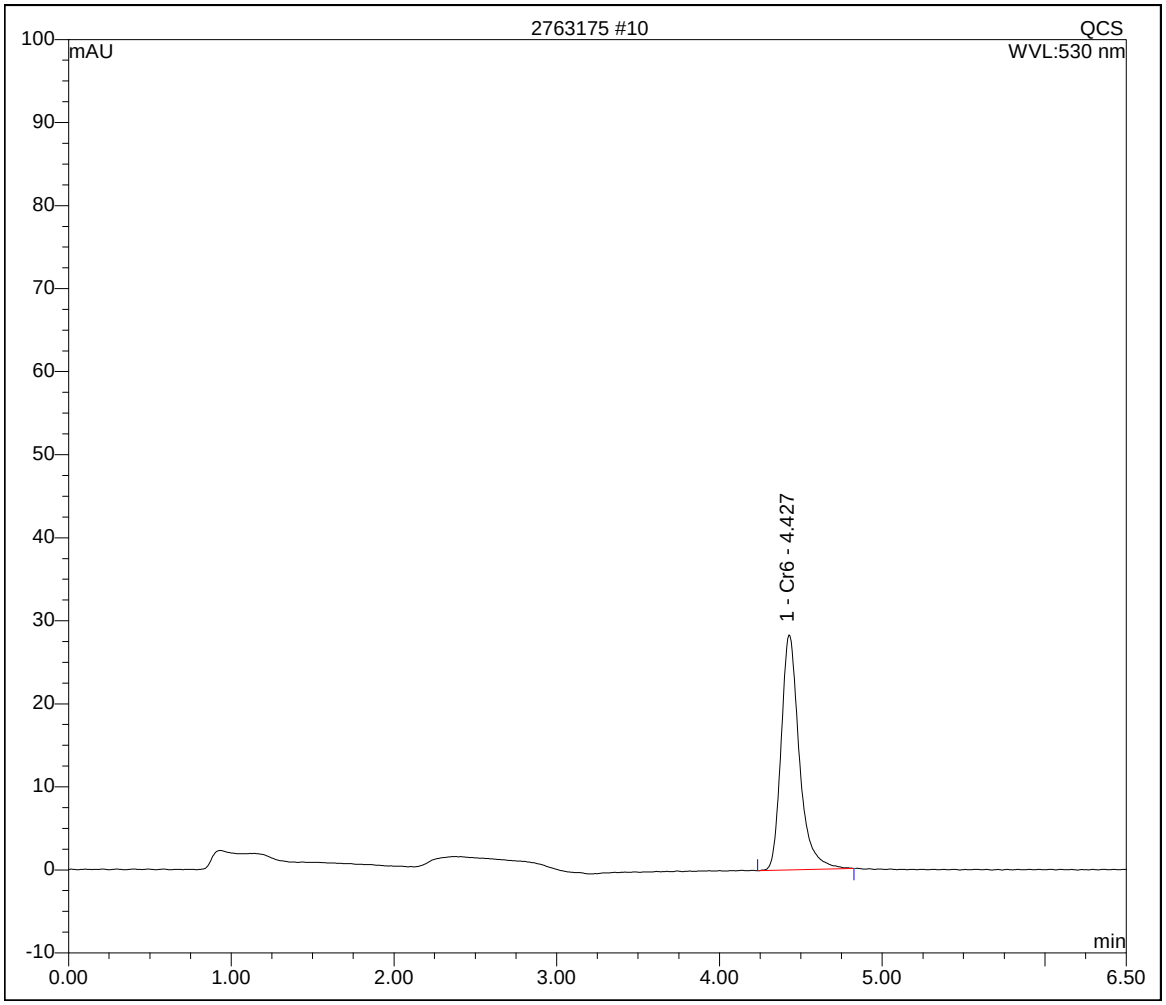
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2763175**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/23/18 05:58**	*Batch:*	**206419**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062318**	*InitialCal:*	**063218**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.43	Cr6	3.665	28.297	9.64
		TOTAL:	3.66	28.30	9.64



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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2322318 TLG020|112IC08424

Lab ID: **2322318002** Date Collected: 6/22/2018 09:05 Matrix: Water
Sample ID: **MSA-MW-14D-062218** Date Received: 6/22/2018 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	4.8		ug/L	0.25	0.047	EPA 218.6		6/23/18 09:15	MBW	A

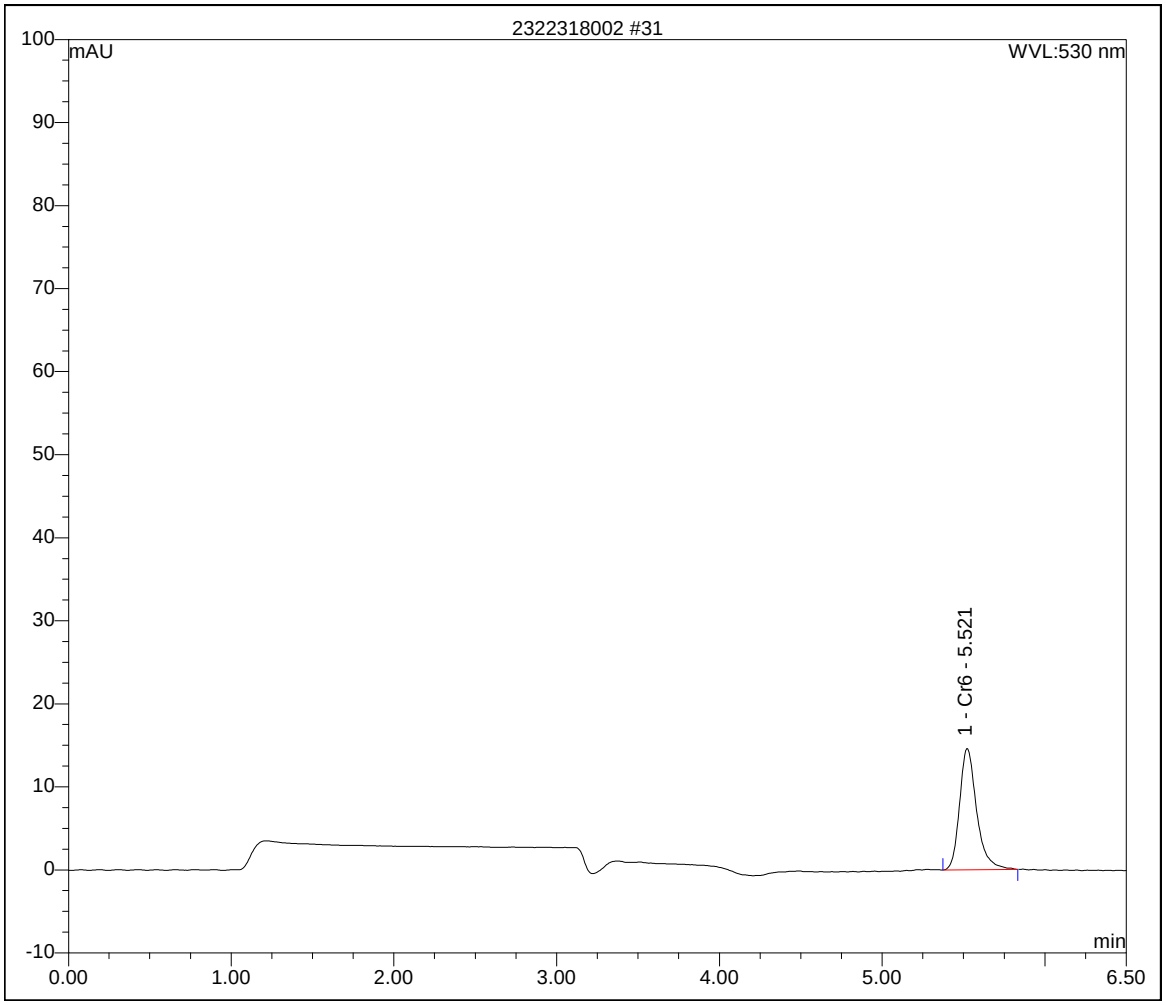
Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Peak Integration Report

Sample Name:	**2322318002**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/23/18 09:15**	*Batch:*	**206419**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062318**	*InitialCal:*	**063218**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.52	Cr6	1.777	14.607	4.77
		TOTAL:	1.78	14.61	4.77



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-021

Sample Management

This report contains the results of the analysis of six (6) ground water samples collected on June 26, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 26, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Six (6) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/23/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2765108 and 2765110 were analyzed with the samples. Recoveries were within QC limits.

Spikes. Matrix spike and matrix spike duplicate analyses identified as 2765111 and 2765112 were performed on sample 2322796001 (MSA-MW-50D-062618). All recoveries were within method acceptance limits.

Thursday, June 28, 2018 3:56:10 PM
Page 13 of 13

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

2322796

Co. Name: Tetra Tech INC
Contact (Report to): Tony Apanavage
Phone: 301 528-3021
Address: 20251 Century Blvd STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same
PO#:

Project Name/#: 112IC08424
ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

***Container Type	Poly
***Container Size	125
*** Preservative	CrG

ANALYSES/METHOD REQUESTED

Hex Chrom (218.6)

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)
1	MSA-MW-50D-062618	MS/MSD	6/26/18	0922	G	GW	3
2	MSA-MW-50I-062618			1153			1
3	MSA-MW-50S-062618			1405			1
4	MSA-MW-52S-062618			0905			1
5	MSA-MW-52I-062618			1010			1
6	MSA-MW-52D-062618			1120			1
7							
8							

Reduction (completed by Sample Receiving)
Performed by: [signature]
Cooler Temp: 0°C
Therm. ID: 402
No. of Coolers:
Notes:

Sample	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
1	Y	Y	Y	Y	Y
2	N	N	N	N	N
3	Y	Y	Y	Y	Y
4	N	N	N	N	N
5	N	N	N	N	N
6	N	N	N	N	N
7					
8					

SAMPLED BY (Please Print): ~~[illegible]~~ Walt Pryor

Project Comments: * 24 hr TAT *

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Pryor	6/26/18	1610	2	[signature]	6/26	1610
3	[signature] ALS	6/26	1735	4	[signature]	6/26	1830
5	[signature]	6/26	2130	6	[signature] ALS	6/26/18	2130
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ new
EDDs Required? ☐ If yes, format type:
SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐ Other
Enter PWSID No.
DOD Criteria Required?

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2322796 TLG021|112ICO8424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2322796001	MSA-MW-50D-062618	Water	6/26/2018 09:22	6/26/2018 21:30	Collected by Client
2322796002	MSA-MW-50I-062618	Water	6/26/2018 11:53	6/26/2018 21:30	Collected by Client
2322796003	MSA-MW-50S-062618	Water	6/26/2018 14:05	6/26/2018 21:30	Collected by Client
2322796004	MSA-MW-52S-062618	Water	6/26/2018 09:05	6/26/2018 21:30	Collected by Client
2322796005	MSA-MW-52I-062618	Water	6/26/2018 10:10	6/26/2018 21:30	Collected by Client
2322796006	MSA-MW-52D-062618	Water	6/26/2018 11:20	6/26/2018 21:30	Collected by Client

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2322796 TLG021|112ICO8424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2322796 TLG021|112ICO8424

Lab ID	Sample ID	Analysis Method	Prep Method
2322796001	MSA-MW-50D-062618	EPA 218.6	
2322796002	MSA-MW-50I-062618	EPA 218.6	
2322796003	MSA-MW-50S-062618	EPA 218.6	
2322796004	MSA-MW-52S-062618	EPA 218.6	
2322796005	MSA-MW-52I-062618	EPA 218.6	
2322796006	MSA-MW-52D-062618	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Sample Description

MSA-MW-50D-062618

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG021
Units: ug/L
Lab Sample ID: 2322796001
Lab MS Sample ID: 2765111
Lab MSD Sample ID: 2765112

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.3	105		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.4	108		90 - 110	2.92		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG021

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2765107	Hexavalent Chromium	MB	QC-Water	06/27/2018 02:10	0.25	U	ug/L
2765114	Hexavalent Chromium	MB	QC-Water	06/27/2018 04:13	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG021

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765109	Hexavalent Chromium	CCVL	06/27/2018 02:29	5	5.2	103		90 - 110
2765113	Hexavalent Chromium	CCVH	06/27/2018 04:03	20	20.2	101		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG021

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765108	Hexavalent Chromium	MRL	06/27/2018 02:20	0.25	0.27	107		50 - 150
2765110	Hexavalent Chromium	LCS	06/27/2018 02:39	10	10.3	103		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Sample Description
MSA-MW-50D-062618

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG021
Units: ug/L
Lab Sample ID: 2322796001
Lab MS Sample ID: 2765111
Lab MSD Sample ID: 2765112

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.3	105		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.4	108		90 - 110	2.92		20

(1) The following qualifiers are used:

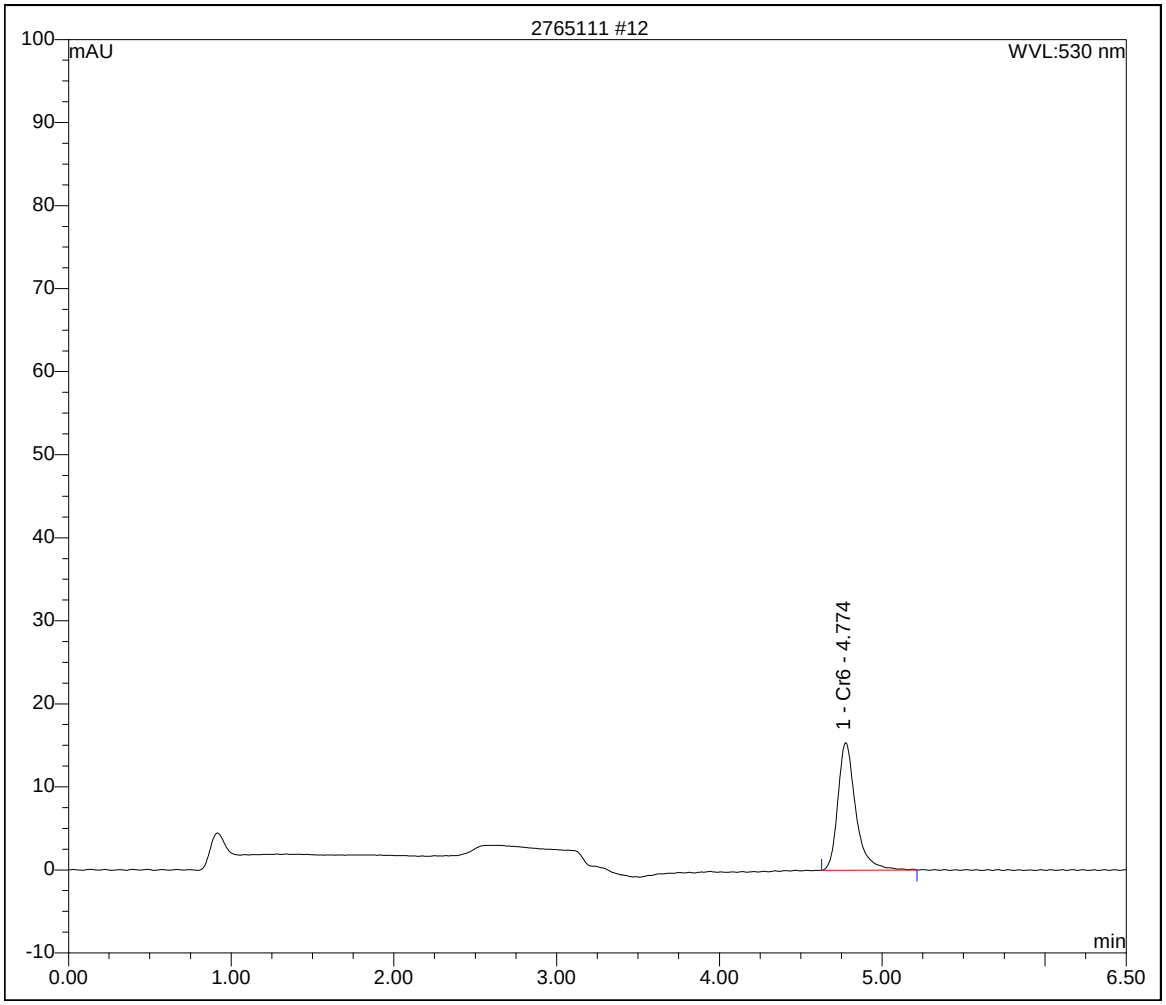
* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Peak Integration Report

Sample Name:	**2765111**	*Dilution:*	**1**
Sample Type:	**MS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/27/18 02:58**	*Batch:*	**206577**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062718**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.77	Cr6	1.964	15.370	5.26
		TOTAL:	1.96	15.37	5.26



Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No. TLG021

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765109	Hexavalent Chromium	CCVL	06/27/2018 02:29	5	5.2 ✓	103		90 - 110
2765113	Hexavalent Chromium	CCVH	06/27/2018 04:03	20	20.2	101		90 - 110

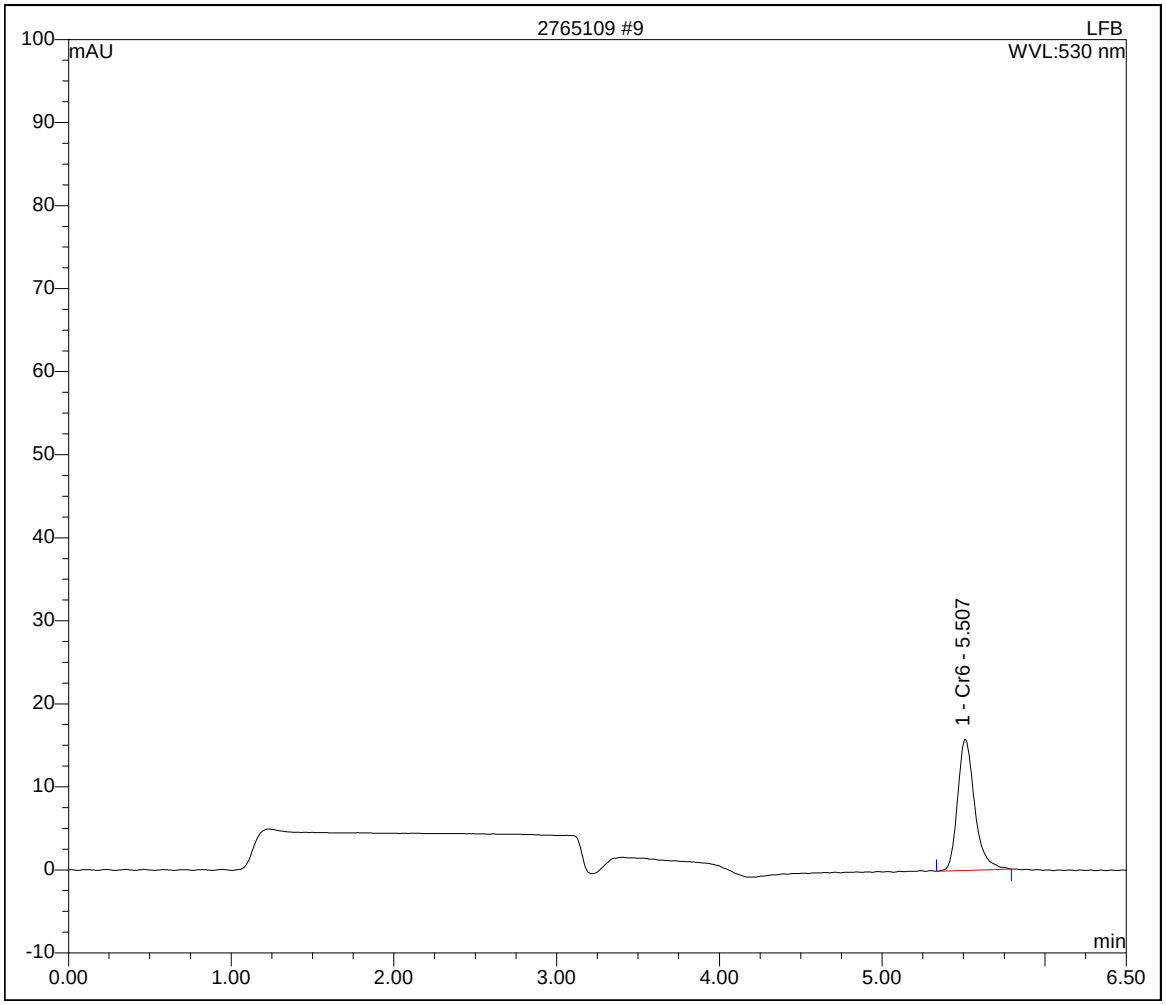
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2765109**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/27/18 02:29**	*Batch:*	**206577**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062718**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.51	Cr6	1.924	15.779	5.15
		TOTAL:	1.92	15.78	5.15 ✓



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG021

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765108	Hexavalent Chromium	MRL	06/27/2018 02:20	0.25	0.27	107		50 - 150
2765110	Hexavalent Chromium	LCS	06/27/2018 02:39	10	10.3 ✓	103		90 - 110

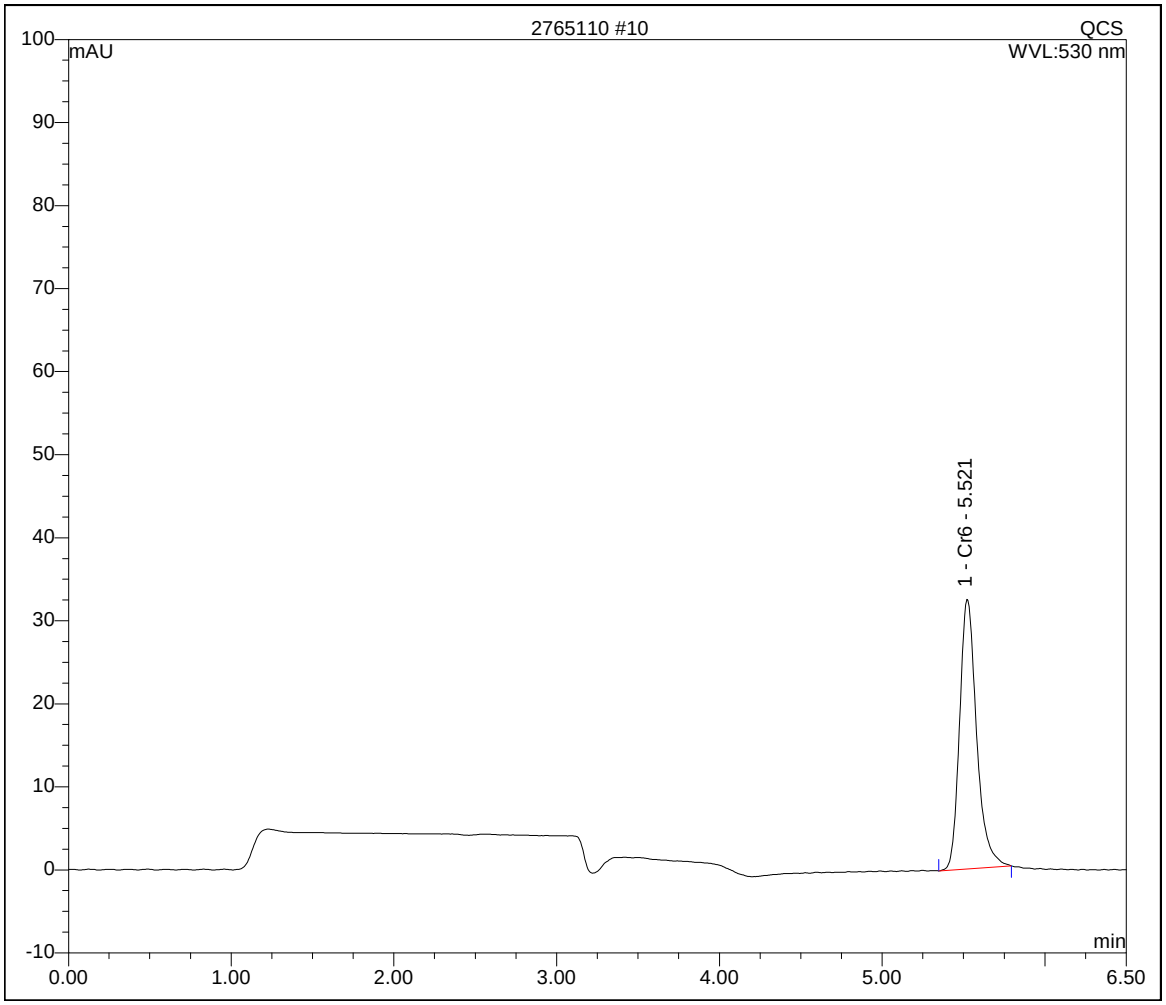
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2765110**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/27/18 02:39**	*Batch:*	**206577**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062718**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.52	Cr6	3.938	32.456	10.33
		TOTAL:	3.94	32.46	10.33



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-022

Sample Management

This report contains the results of the analysis of six (6) water samples collected on June 27, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 27, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Six (6) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/23/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. A laboratory control sample identified as 2765979 was analyzed initially and every 20 samples. The recovery was within the QC limits of 50-150%.

A laboratory control sample identified as 2765981 was analyzed initially and every 20 samples. The recovery was within the QC limits of 90-110%.

Spikes. Matrix spike and matrix spike duplicate analyses were performed on sample 2323050001 (MSA-MW-51D-062718). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Page 1 of 1

Courier:

Tracking #:

2323050

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: Tetra Tech INC.

Contact (Report to): TONY Apanavage Phone: 301 528-3021

Address: 20251 Century BLVD STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: ALS Quote #:

TAT: Normal-Standard TAT is 10-12 business days. Date Required:
Rush-Subject to ALS approval and surcharges. Approved By:

Email? -Y

Fax? -Y No.:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis
1	MSA-MW-51D-062718		6/27/18	0855	G	GW	1
2	MSA-MW-51I-062718			1117			1
3	MSA-MW-51s-062718	*bottle label has 51I on it * km 6/27		1350			1
4	MSA-MW-47s-062718			0940			1
5	MSA-MW-47I-062718			1100			1
6	MSA-MW-47D-062718			1240			1
7							
8							

***Container Type: Poly
***Container Size: 125
Preservative: CRC

ANALYSES/METHOD REQUESTED: Hex Chrom (218.6)

Performed by: KMA
Cooler Temp: 2 °C
Therm. ID: 402
No. of Coolers:
Notes:

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
N					
Y	✓	✓	✓	✓	✓

	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?
N					
Y	✓	✓	✓	✓	✓

SAMPLED BY (Please Print): Walt Pryor

Project Comments: * 24 hr TAT *

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Walt P	6/27/18	1615	2	6/27	1615
3	6/27	1718	4	6/27	1810
5	6/27	2140	6	6/27/18	2140
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; other
EDDs Required? If yes, format type:
SDWA Forms? yes yes yes yes
State Samples Collected In? MD NJ NY PA
Other
DOD Criteria Required?

ALS FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

* G=Grab; C=Composite

** Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

*** Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2323050001	MSA-MW-51D-062718	Water	6/27/2018 09:55	6/27/2018 21:40	Collected by Client
2323050002	MSA-MW-51I-062718	Water	6/27/2018 11:17	6/27/2018 21:40	Collected by Client
2323050003	MSA-MW-51S-062718	Water	6/27/2018 13:50	6/27/2018 21:40	Collected by Client
2323050004	MSA-MW-47S-062718	Water	6/27/2018 09:40	6/27/2018 21:40	Collected by Client
2323050005	MSA-MW-47I-062718	Water	6/27/2018 11:00	6/27/2018 21:40	Collected by Client
2323050006	MSA-MW-47D-062718	Water	6/27/2018 12:40	6/27/2018 21:40	Collected by Client

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID	Sample ID	Analysis Method	Prep Method
2323050001	MSA-MW-51D-062718	EPA 218.6	
2323050002	MSA-MW-51I-062718	EPA 218.6	
2323050003	MSA-MW-51S-062718	EPA 218.6	
2323050004	MSA-MW-47S-062718	EPA 218.6	
2323050005	MSA-MW-47I-062718	EPA 218.6	
2323050006	MSA-MW-47D-062718	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Sample Description

MSA-MW-51D-062718

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG022
Units: ug/L
Lab Sample ID: 2323050001
Lab MS Sample ID: 2765982
Lab MSD Sample ID: 2765983

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	2.8	8.0	103		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	7.8	99.1		90 - 110	2.62		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG022

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2765978	Hexavalent Chromium	MB	QC-Water	06/28/2018 02:44	0.25	U	ug/L
2765985	Hexavalent Chromium	MB	QC-Water	06/28/2018 05:07	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG022

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765980	Hexavalent Chromium	CCVL	06/28/2018 03:03	5	5.4	108		90 - 110
2765984	Hexavalent Chromium	CCVH	06/28/2018 04:57	20	21.3	107		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG022

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765979	Hexavalent Chromium	MRL	06/28/2018 02:54	0.25	0.27	108		50 - 150
2765981	Hexavalent Chromium	LCS	06/28/2018 03:14	10	10.4	104		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

MSA-MW-51D-062718

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG022
Units: ug/L
Lab Sample ID: 2323050001
Lab MS Sample ID: 2765982
Lab MSD Sample ID: 2765983

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	2.8	8.0 ✓	103		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	7.8	99.1		90 - 110	2.62		20

(1) The following qualifiers are used:

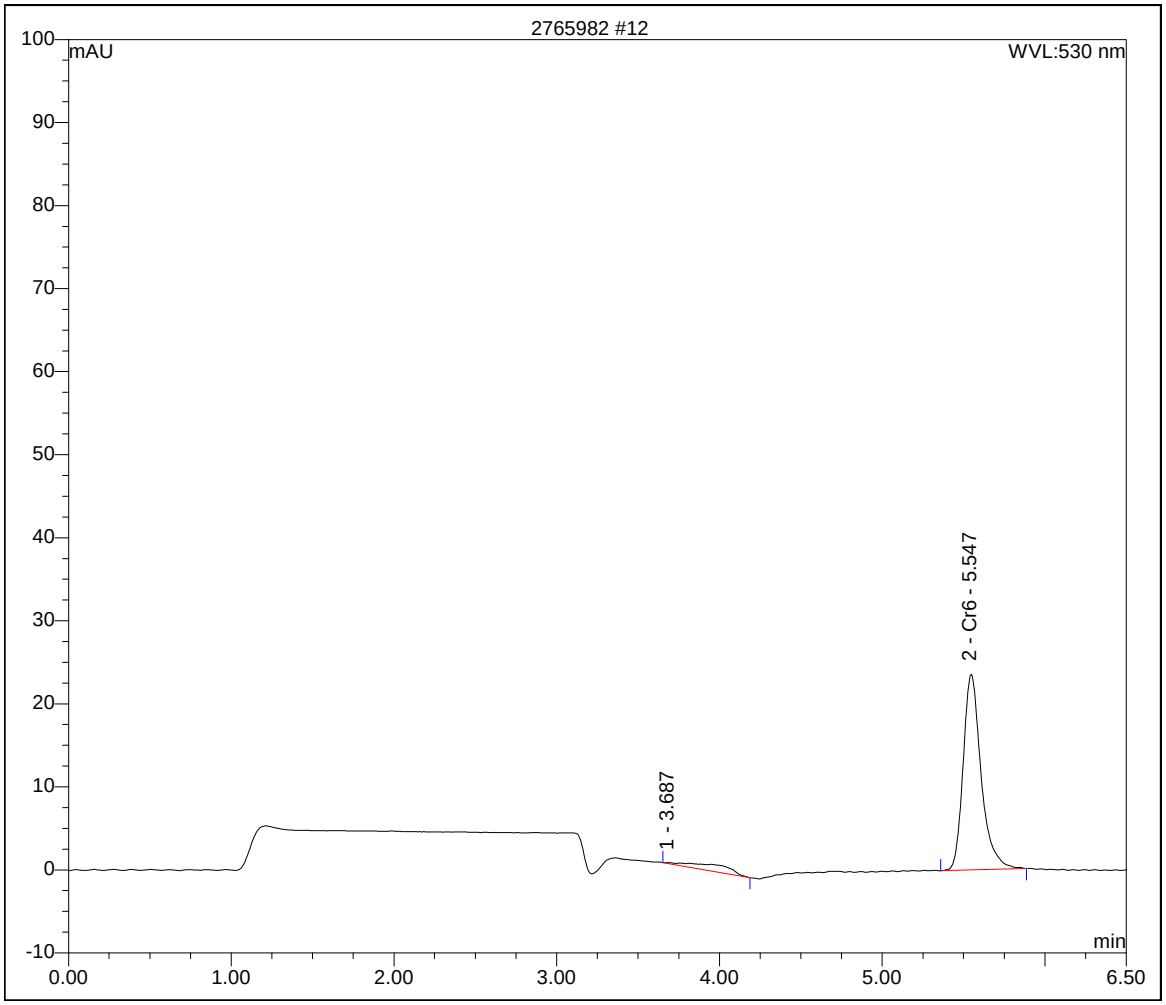
* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Peak Integration Report

Sample Name:	**2765982**	*Dilution:*	**1**
Sample Type:	**MS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/28/18 03:33**	*Batch:*	**206654**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062818**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
2	5.55	Cr6	3.021	23.588	7.99
		TOTAL:	3.02	23.59	7.99



Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No. TLG022

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765980	Hexavalent Chromium	CCVL	06/28/2018 03:03	5	5.4 ✓	108		90 - 110
2765984	Hexavalent Chromium	CCVH	06/28/2018 04:57	20	21.3	107		90 - 110

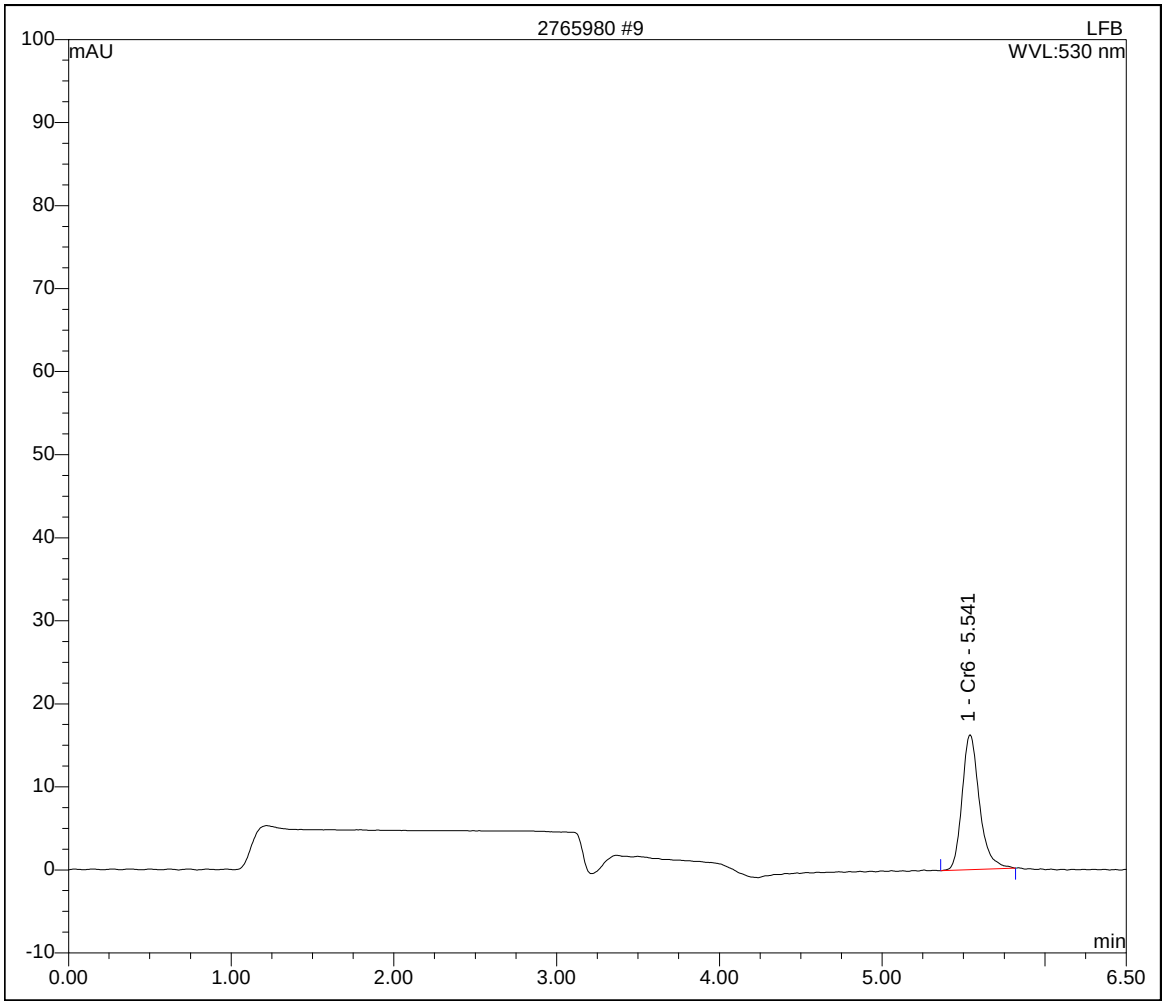
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2765980**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/28/18 03:03**	*Batch:*	**206654**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062818**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.54	Cr6	2.010	16.263	5.38
		TOTAL:	2.01	16.26	5.38



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG022

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2765979	Hexavalent Chromium	MRL	06/28/2018 02:54	0.25	0.27	108		50 - 150
2765981	Hexavalent Chromium	LCS	06/28/2018 03:14	10	10.4 √	104		90 - 110

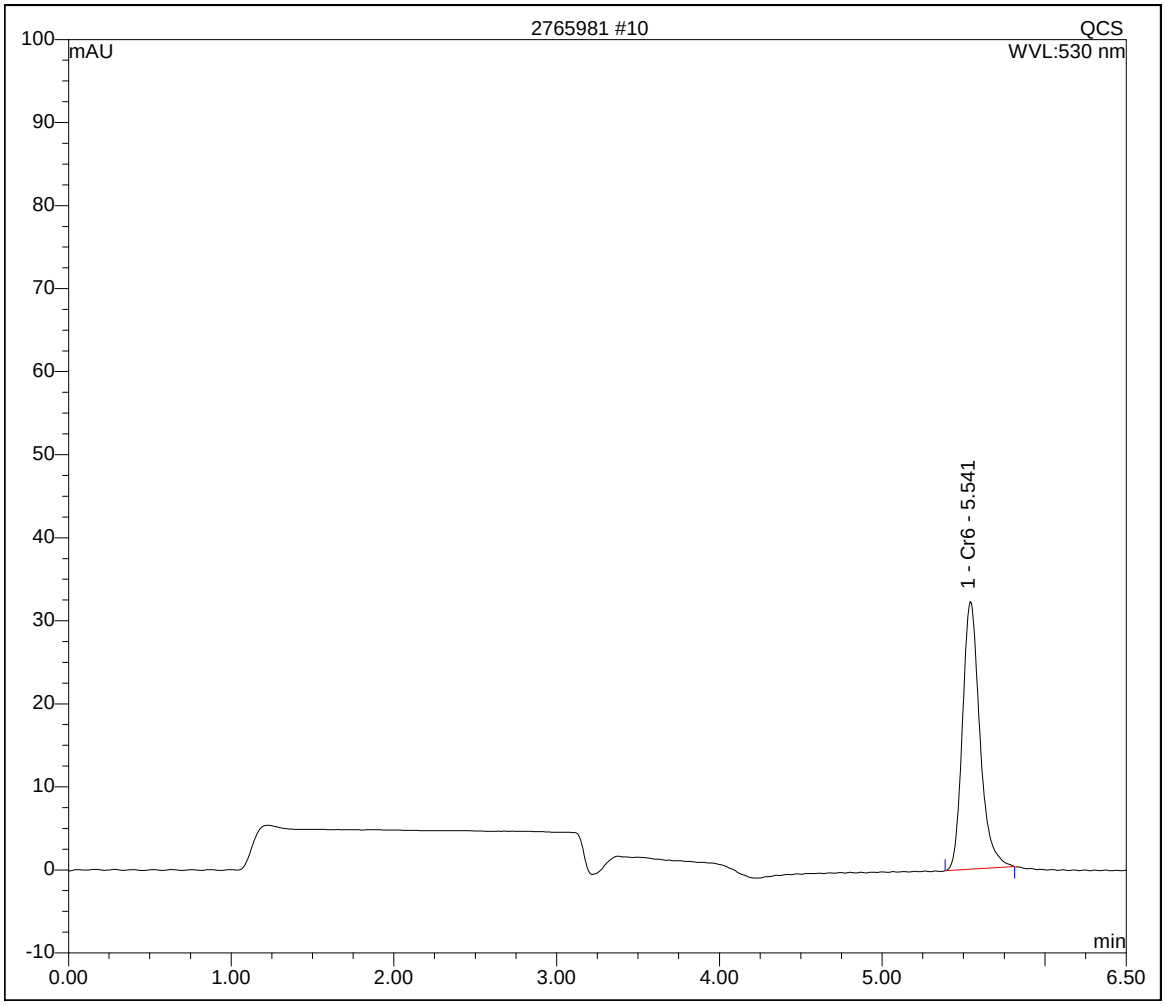
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2765981**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/28/18 03:14**	*Batch:*	**206654**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062818**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.54	Cr6	3.984	32.228	10.44
		TOTAL:	3.98	32.23	10.44 ✓



ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323050 TLG022|24Hr 218.6 06/27/2018

Lab ID: **2323050001** Date Collected: 6/27/2018 09:55 Matrix: Water

Sample ID: **MSA-MW-51D-062718** Date Received: 6/27/2018 21:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	2.8		ug/L	0.25	0.047	EPA 218.6		6/28/18 03:23	MBW	A

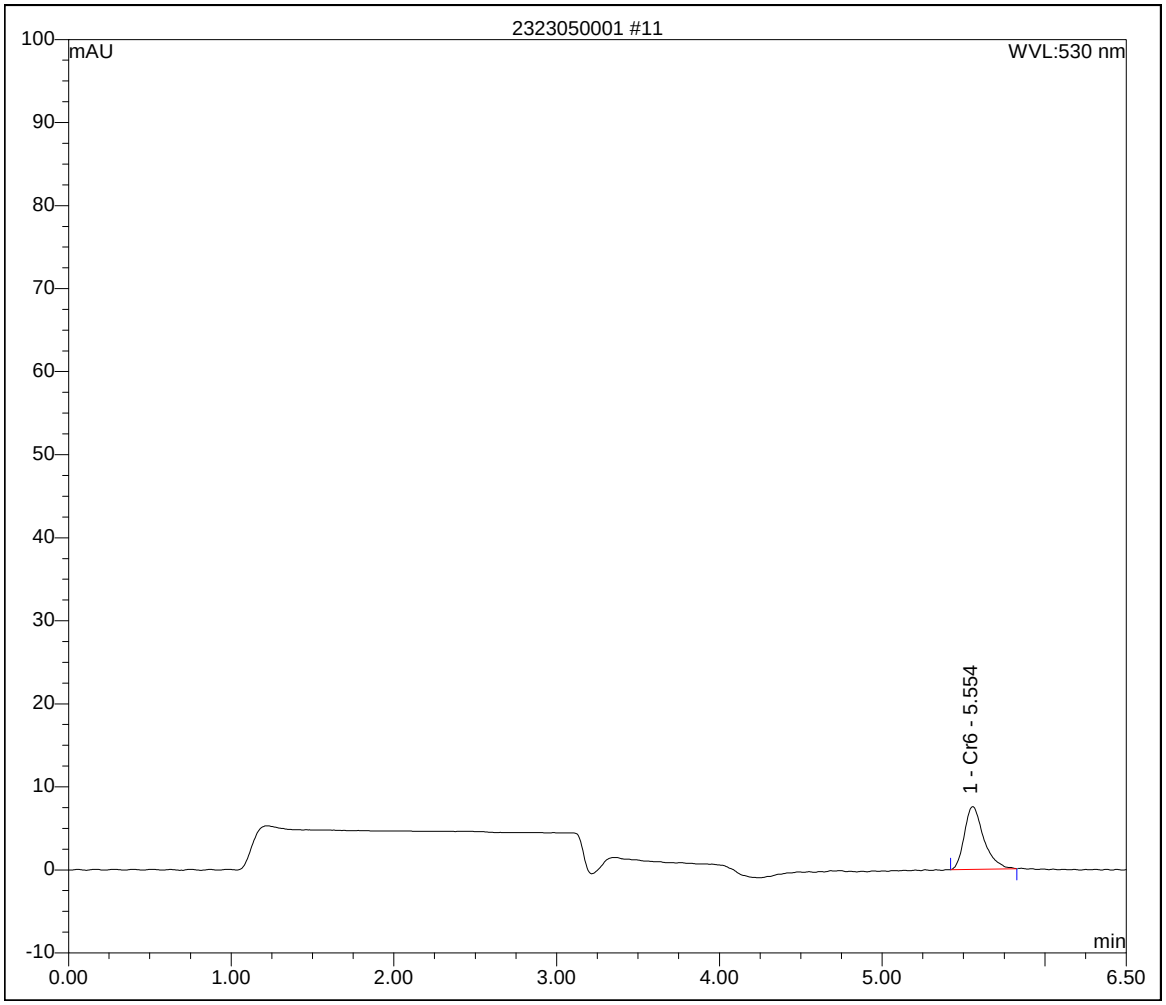
Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Peak Integration Report

Sample Name:	**2323050001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/28/18 03:23**	*Batch:*	**206654**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062818**	*InitialCal:*	**062318**
Sequence2:		*Method:*	**218_6_062318**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.55	Cr6	1.040	7.561	2.83
		TOTAL:	1.04	7.56	2.83



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-023

Sample Management

This report contains the results of the analysis of six (6) water samples collected on June 28, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 28, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Six (6) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/29/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. A laboratory control samples identified as 2766913 MRL was analyzed initially and every 20 samples. The recovery was within the QC limits of 50-150%.

A laboratory control sample identified as 2766915 was analyzed initially and every 20 samples. The recovery was within the QC limits of 90-110%.

Spikes. Matrix spike and matrix spike duplicate analyses were performed on sample 2323302001 (MSA-MW-49D-062818). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

ALS Environmental
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Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #: MD1806280037

* 2 3 2 3 3 0 2 *

Co. Name: Tetra Tech Inc

Contact (Report to): Tony Apanavage Phone: 301 528-3521

Address: 20251 Century Blvd Ste 200
Germantown, MD 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: ALS Quote #:

TAT: Normal-Standard TAT is 10-12 business days. Date Required:
Rush-Subject to ALS approval and surcharges. Approved By:

Email? -Y
Fax? -Y No.:

| | | |

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2323302001	MSA-MW-49D-062818	Water	6/28/2018 09:57	6/28/2018 22:45	Collected by Client
2323302002	MSA-MW-49I-062818	Water	6/28/2018 11:30	6/28/2018 22:45	Collected by Client
2323302003	MSA-MW-49S-062818	Water	6/28/2018 14:05	6/28/2018 22:45	Collected by Client
2323302004	MSA-MW-46S-062818	Water	6/28/2018 10:35	6/28/2018 22:45	Collected by Client
2323302005	MSA-MW-46I-062818	Water	6/28/2018 11:40	6/28/2018 22:45	Collected by Client
2323302006	MSA-MW-46D-062818	Water	6/28/2018 13:20	6/28/2018 22:45	Collected by Client

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323302 TLG023|Lockheed Martin Middle

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2323302 TLG023|Lockheed Martin Middle

Lab ID	Sample ID	Analysis Method	Prep Method
2323302001	MSA-MW-49D-062818	EPA 218.6	
2323302002	MSA-MW-49I-062818	EPA 218.6	
2323302003	MSA-MW-49S-062818	EPA 218.6	
2323302004	MSA-MW-46S-062818	EPA 218.6	
2323302005	MSA-MW-46I-062818	EPA 218.6	
2323302006	MSA-MW-46D-062818	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Sample Description

MSA-MW-49D-062818

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG023
Units: ug/L
Lab Sample ID: 2323302001
Lab MS Sample ID: 2766916
Lab MSD Sample ID: 2766917

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.4	108		90 -110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.2	104		90 - 110	3.95		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG023

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2766912	Hexavalent Chromium	MB	QC-Water	06/29/2018 04:49	0.25	U	ug/L
2766919	Hexavalent Chromium	MB	QC-Water	06/29/2018 07:31	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No.: TLG023

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2766914	Hexavalent Chromium	CCVL	06/29/2018 05:08	5	5.4	107		90 - 110
2766918	Hexavalent Chromium	CCVH	06/29/2018 07:21	20	18.3	91.7		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG023

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2766913	Hexavalent Chromium	MRL	06/29/2018 04:58	0.25	0.23	91.6		50 - 150
2766915	Hexavalent Chromium	LCS	06/29/2018 05:17	10	10.2	102		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Sample Description
MSA-MW-49D-062818

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG023
Units: ug/L
Lab Sample ID: 2323302001
Lab MS Sample ID: 2766916
Lab MSD Sample ID: 2766917

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.0	5.4	108		90 -110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	5.2	104		90 - 110	3.95		20

(1) The following qualifiers are used:

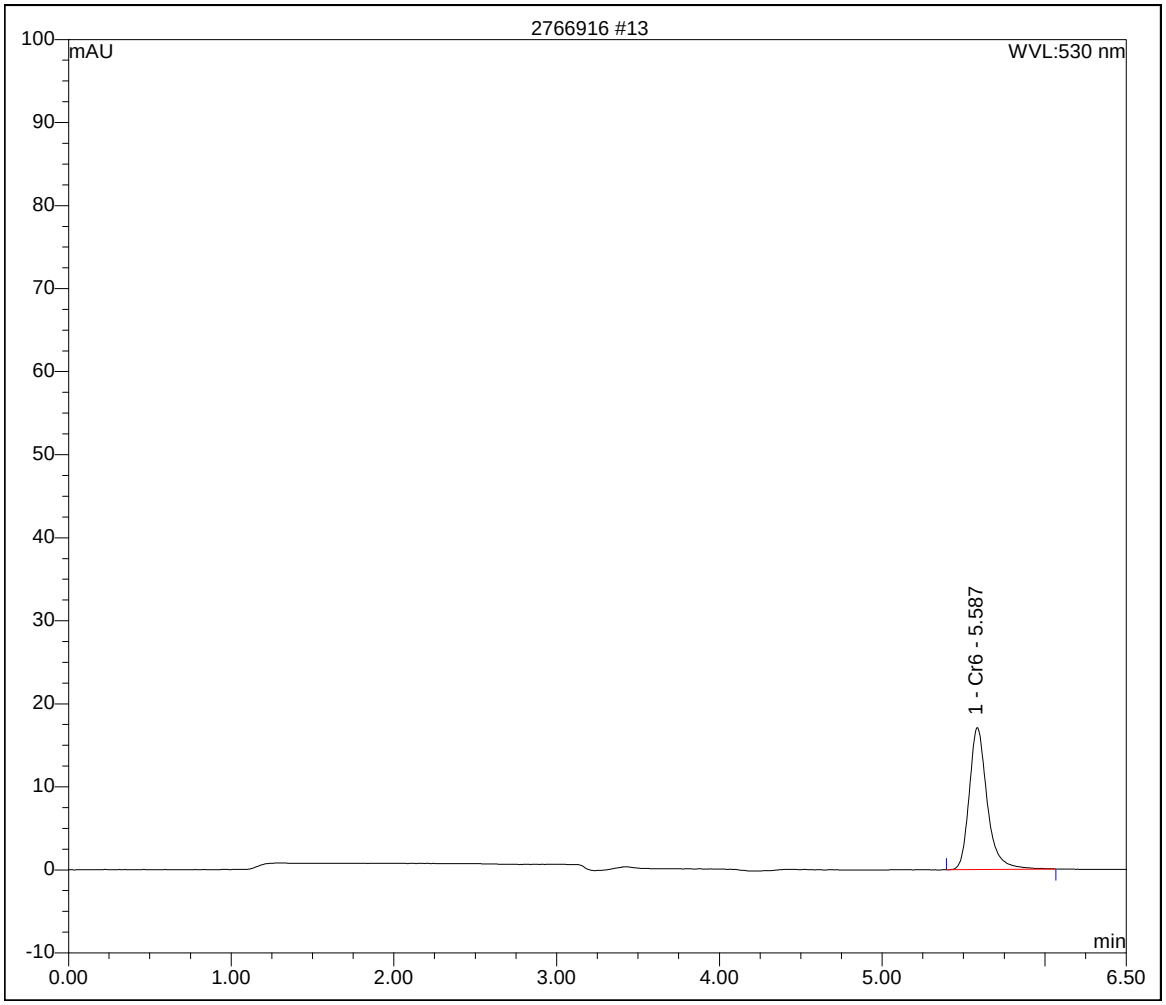
* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Peak Integration Report

Sample Name:	**2766916**	*Dilution:*	**1**
Sample Type:	**MS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/29/18 05:45**	*Batch:*	**206738**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062918**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.59	Cr6	2.188	17.082	5.40
		TOTAL:	2.19	17.08	5.40



Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No.: TLG023

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2766914	Hexavalent Chromium	CCVL	06/29/2018 05:08	5	5.4	107		90 - 110
2766918	Hexavalent Chromium	CCVH	06/29/2018 07:21	20	18.3 ✓	91.7		90 - 110

(1) The following qualifiers are used:

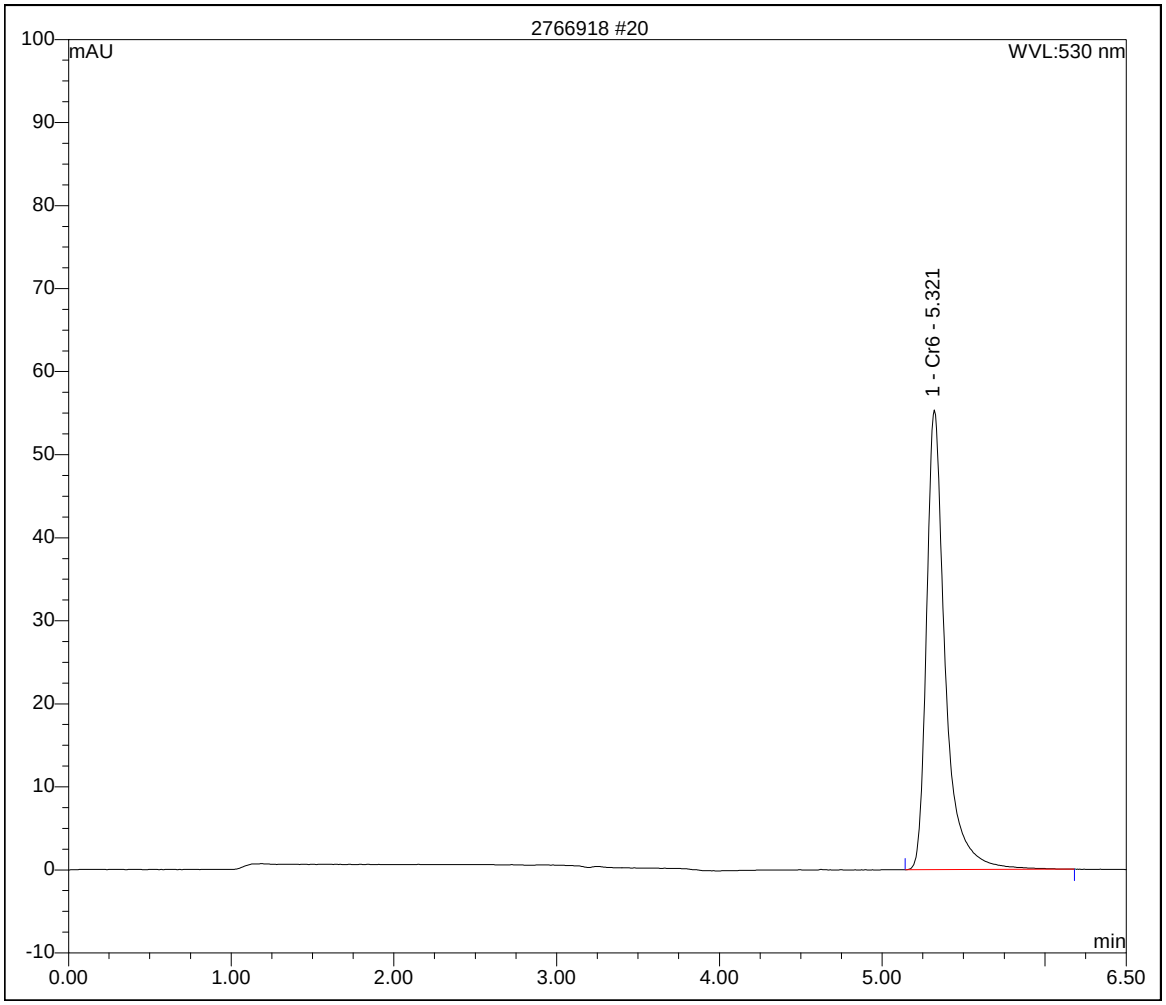
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2766918**	*Dilution:*	**1**
Sample Type:	**CCVH**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/29/18 07:21**	*Batch:*	**206738**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062918**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.32	Cr6	7.391	55.377	18.33
		TOTAL:	7.39	55.38	18.33



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG023

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2766913	Hexavalent Chromium	MRL	06/29/2018 04:58	0.25	0.23	91.6		50 - 150
2766915	Hexavalent Chromium	LCS	06/29/2018 05:17	10	10.2 ✓	102		90 - 110

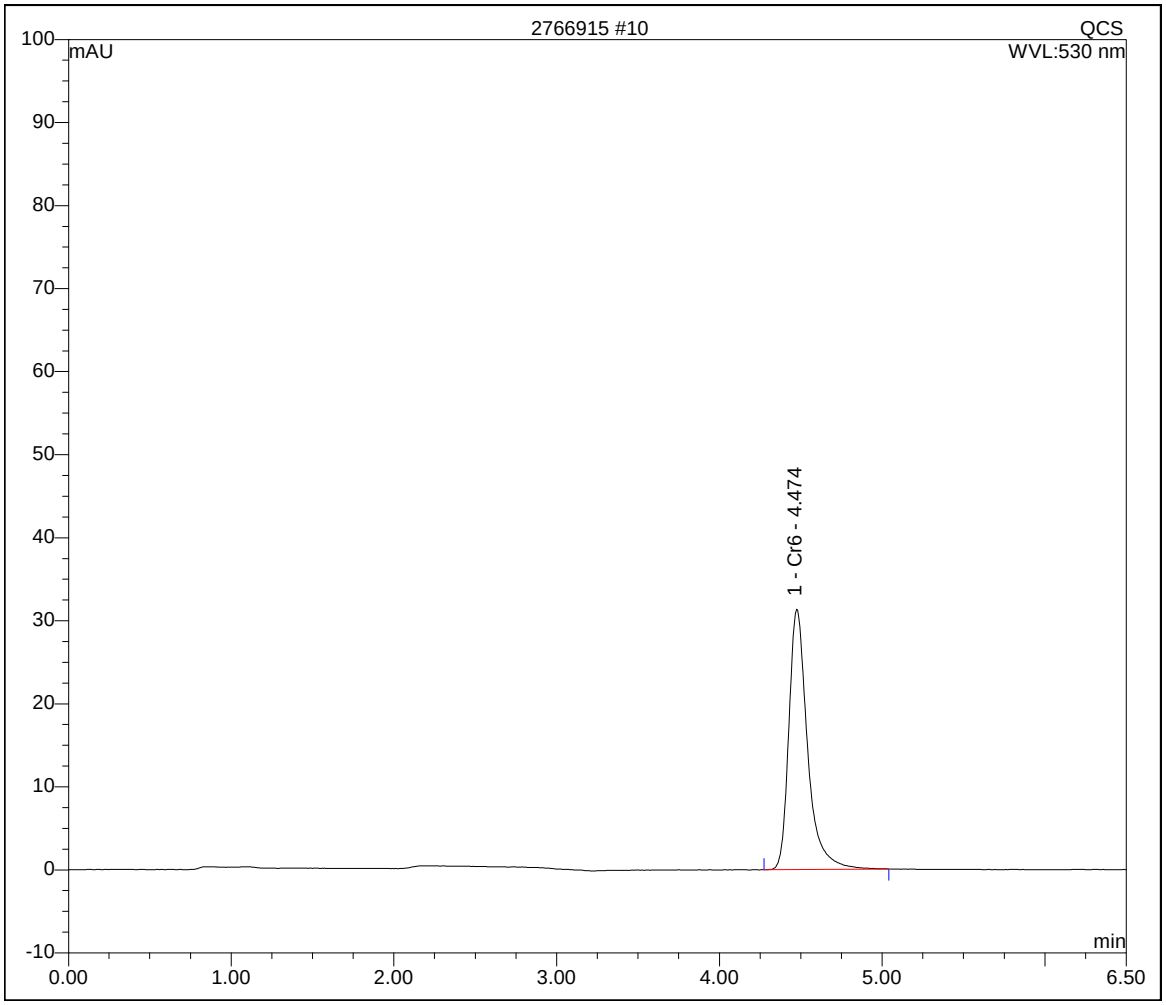
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2766915**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/29/18 05:17**	*Batch:*	**206738**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**062918**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.47	Cr6	4.174	31.357	10.21
		TOTAL:	4.17	31.36	10.21 ✓



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-024

Sample Management

This report contains the results of the analysis of three (3) ground water samples collected on June 29, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on June 29, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Three (3) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/29/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. A laboratory control sample identified as 2767523 was analyzed initially and every 20 samples. The recovery was within the QC limits of 50-150%.

A laboratory control sample identified as 2767525 was analyzed initially and every 20 samples. The recovery was within the QC limits of 90-110%.

Spikes. Matrix spike and matrix spike duplicate analyses were not performed on any samples from this data deliverable.

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Courier:
Tracking #:



ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

MD180629065

Co. Name: Tetra Tech INC
Contact (Report to): Tony Apanavage Phone: 301 528-3021
Address: 20251 Century Blvd - STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: 112BC08424 ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Hex Chrom (218.6)										
***Container Type						P04										
***Container Size						125										
*** Preservative						CR6										
ANALYSES/METHOD REQUESTED																
Enter Number of Containers Per Analysis																
1 MSA-MW-48D-062918		6/29/18	0850	G	GW	1										
2 MSA-MW-48I-062918			1121			1										
3 MSA-MW-48S-062918			1300			1										
4 ~~Dmw-4S-062918~~			~~0815~~			1										
5 ~~Dmw-4I-062918~~			~~0925~~			1										
6 ~~Dmw-4D-062918~~		↓	~~1030~~	↓	↓	1										
7 TB-062918																
8																

	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
	N	N	N	-	
	Y	Y	Y		
	N	N	N	N	N
	Y	Y	Y	Y	Y
	Custody seals Present?	(if present) Seals intact?	Received on ice?	COC/Labels complete/accurate?	Container in good condition?

(completed by Sample Receiving)
Performed by: KMM
Cooler Temp: 1.0c
Therm. ID: 402
No. of Coolers:
Notes:

SAMPLED BY (Please Print): Walt Payson

Project Comments: * 24 hr TAT *

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Walt P	6/29/18	1616	2 [signature]	6/29	1610
3 [signature]	6/29	1736	4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6 [signature]	6/29/18	2240
7			8		
9			10		

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:
SDWA Forms? ⇒ yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? MD ☐ NJ ☐ NY ☐ PA ☐
Other
DOD Criteria Required?

ALS FIELD SERVICES
☐ Pickup
☐ Labor
☐ Composite Sampling
☐ Rental Equipment
☐ Other:

* G=Grab; C=Composite
**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2323634001	MSA-MW-48D-062918	Water	6/29/2018 08:50	6/29/2018 22:40	Collected by Client
2323634002	MSA-MW-48I-062918	Water	6/29/2018 11:21	6/29/2018 22:40	Collected by Client
2323634003	MSA-MW-48S-062918	Water	6/29/2018 13:00	6/29/2018 22:40	Collected by Client

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323634 TLG024|Lockheed Martin Middle

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID	Sample ID	Analysis Method	Prep Method
2323634001	MSA-MW-48D-062918	EPA 218.6	
2323634002	MSA-MW-48I-062918	EPA 218.6	
2323634003	MSA-MW-48S-062918	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG024

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2767522	Hexavalent Chromium	MB	QC-Water	06/30/2018 04:13	0.25	U	ug/L
2767529	Hexavalent Chromium	MB	QC-Water	06/30/2018 06:25	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG024

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2767524	Hexavalent Chromium	CCVL	06/30/2018 04:32	5	4.6	91.6		90 - 110
2767528	Hexavalent Chromium	CCVH	06/30/2018 06:06	20	19.7	98.6		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG024

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2767523	Hexavalent Chromium	MRL	06/30/2018 04:23	0.25	0.22	86.8		50 - 150
2767525	Hexavalent Chromium	LCS	06/30/2018 04:42	10	9.5	95.2		85 - 115

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No. TLG024

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2767524	Hexavalent Chromium	CCVL	06/30/2018 04:32	5	4.6	91.6		90 - 110
2767528	Hexavalent Chromium	CCVH	06/30/2018 06:06	20	19.7	98.6		90 - 110

(1) The following qualifiers are used:

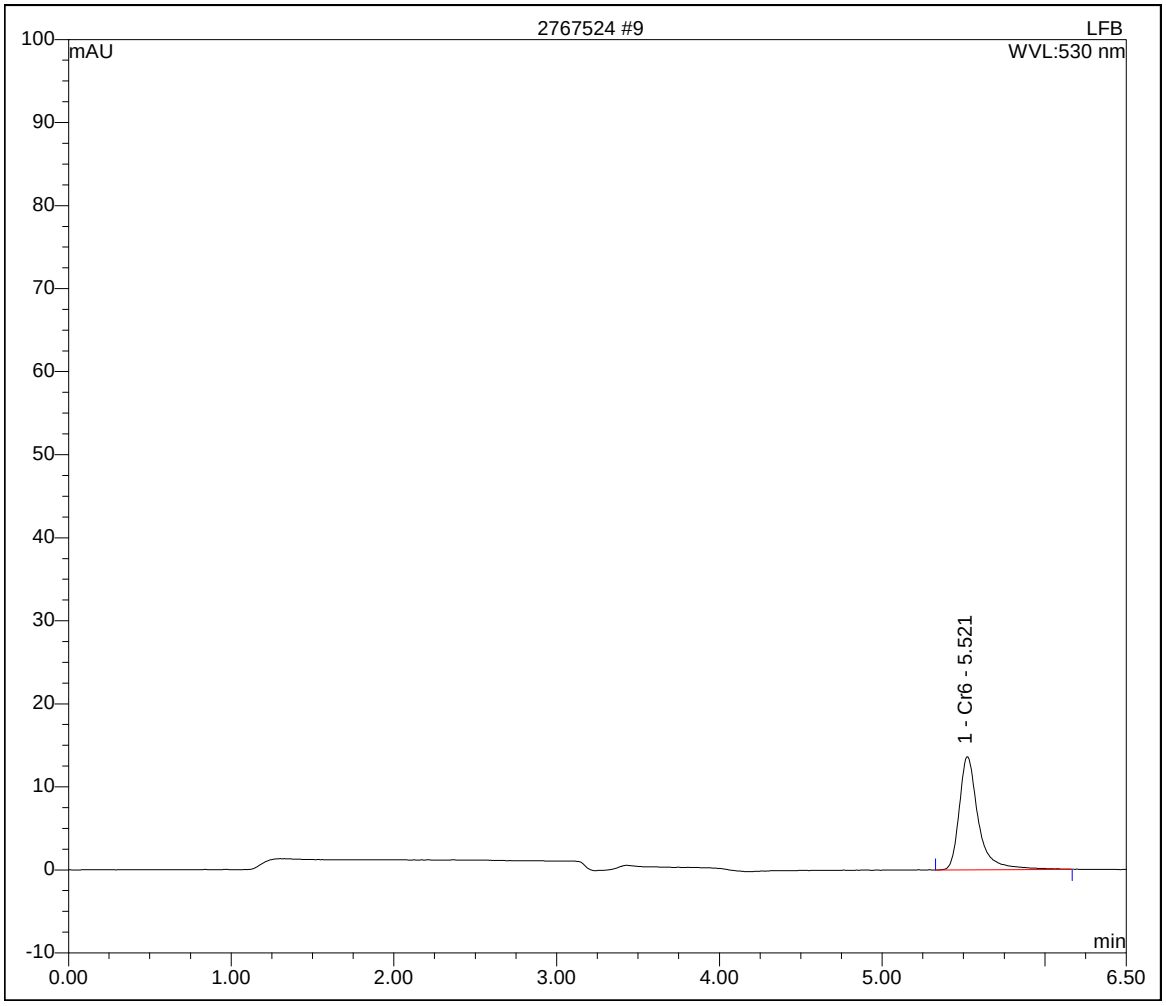
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2767524**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/30/18 04:32**	*Batch:*	**206790**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**063018**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.52	Cr6	1.855	13.618	4.58
		TOTAL:	1.86	13.62	4.58



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG024

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2767523	Hexavalent Chromium	MRL	06/30/2018 04:23	0.25	0.22	86.8		50 - 150
2767525	Hexavalent Chromium	LCS	06/30/2018 04:42	10	9.5	95.2		85 - 115

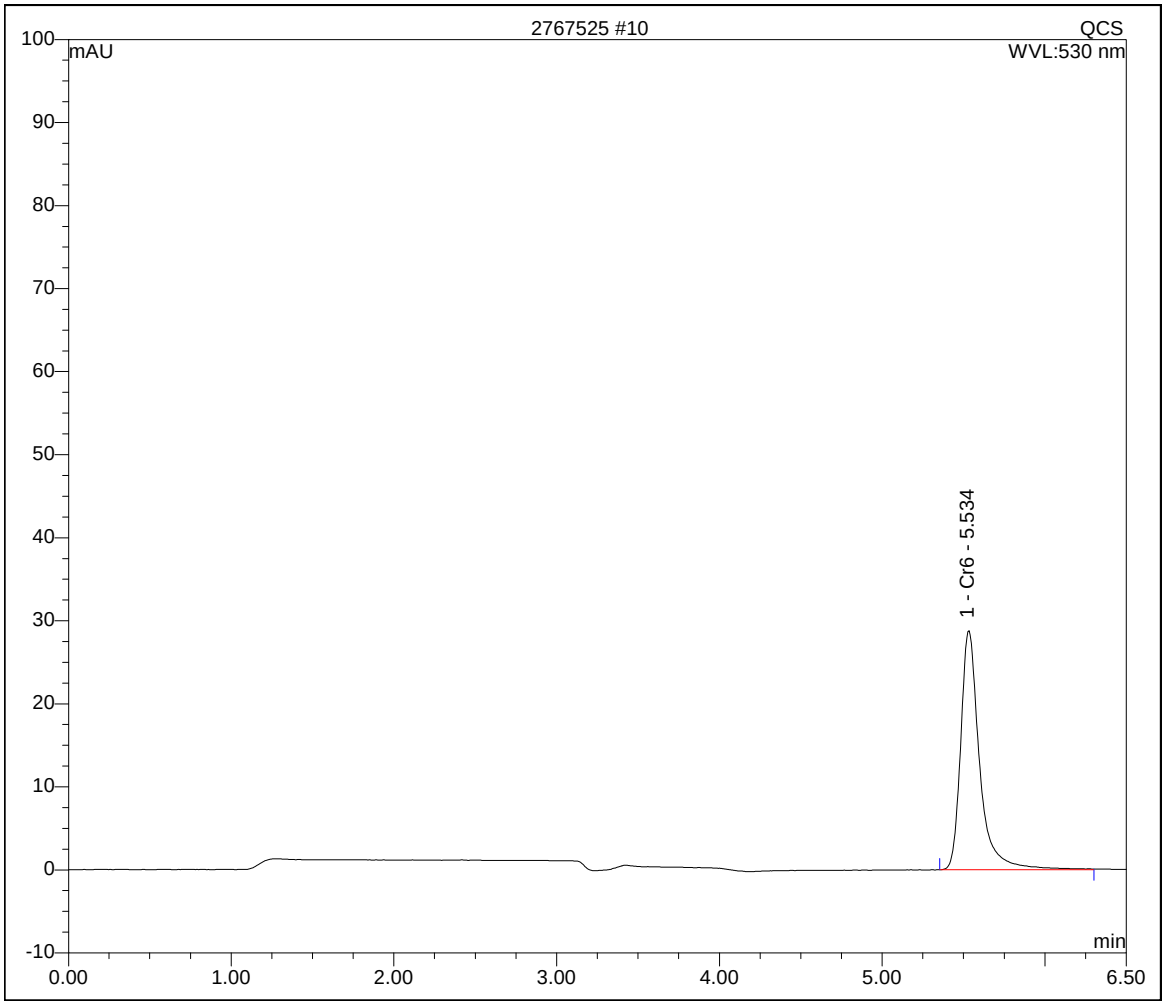
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2767525**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/30/18 04:42**	*Batch:*	**206790**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**063018**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.53	Cr6	3.887	28.778	9.52
		TOTAL:	3.89	28.78	9.52



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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323634 TLG024|Lockheed Martin Middle

Lab ID: **2323634003** Date Collected: 6/29/2018 13:00 Matrix: Water

Sample ID: **MSA-MW-48S-062918** Date Received: 6/29/2018 22:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.085J ✓	J	ug/L	0.25	0.047	EPA 218.6		6/30/18 05:48	MBW	A

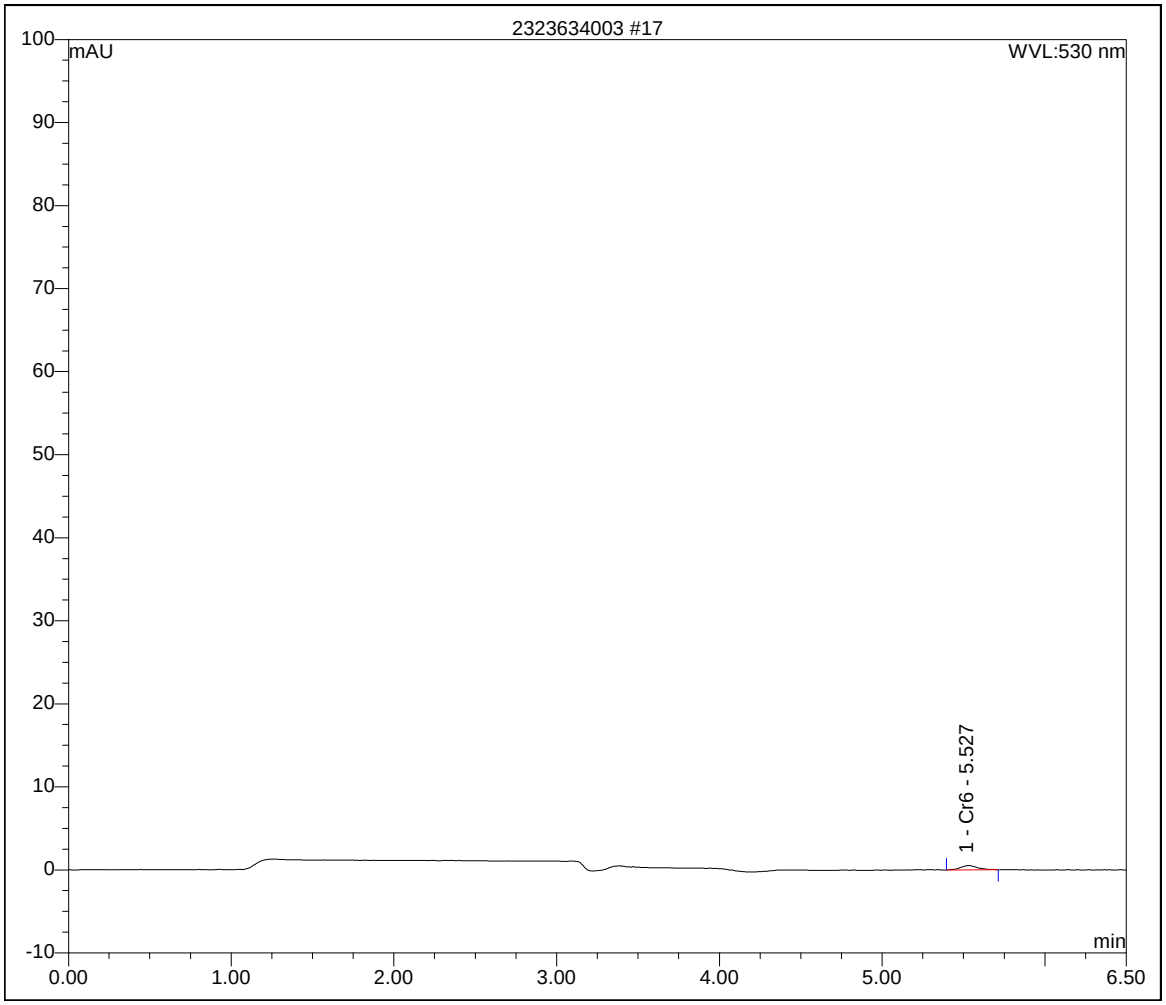
Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Peak Integration Report

Sample Name:	**2323634003**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**06/30/18 05:48**	*Batch:*	**206790**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**063018**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.53	Cr6	0.063	0.509	0.09
		TOTAL:	0.06	0.51	0.09



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-025

Sample Management

This report contains the results of the analysis of four (4) water samples collected on July 2, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The samples arrived at ALS via courier on July 2, 2018. Upon receipt, the samples were inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. Samples were received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Four (4) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 6/29/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. A laboratory control sample identified as 2768570 was analyzed initially and every 20 samples. The recovery was within the QC limits of 50-150%.

A laboratory control sample identified as 2768572 was analyzed initially and every 20 samples. The recovery was within the QC limits of 90-110%.

Spikes. Matrix spike and matrix spike duplicate analyses were performed on sample 2323898001 (DMW-16D-070218). The spike recoveries and the relative percent difference between the spikes were all within the QC limits of 90-110% and 20%, respectively.

Thursday, July 05, 2018 4:04:42 PM
Page 11 of 11

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Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #: MD180629007

* 2 3 2 3 8 9 8 *

Co. Name: Tetra Tech INC.
Contact (Report to): Tony Apanavage Phone: 301 528-3021
Address: 20251 Century Blvd STE 200
Germantown, MD 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: 112IC08424 ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? ☐ -Y
Fax? ☐ -Y No.:

***Container Type	Poly
***Container Size	125
*** Preservative	CR6

ANALYSES/METHOD REQUESTED: Hex Chrom (218.6)

Performed by: KKM
Cooler Temp: 4°C
Therm. ID: 402
No. of Coolers:
Notes:

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis	Correct containers?	Correct sample volume?	Correct preservation?	Headspace/Volatiles?	Circle appropriate Y or N.
1	DMW-16D-070218		7/2/18	0900	G	GW	1	Y	Y	Y	Y	
2	MSA-MW-53s-070218		↓	1155	↓	↓	1	Y	Y	Y	Y	
3	MSA-MW-53I-070218		↓	1325	↓	↓	1	Y	Y	Y	Y	
4	DMW-17D-070218		↓	1405	↓	↓	1	Y	Y	Y	Y	
5												
6												
7		7-2-18 2326										
8												

Custody seals Present? (if present) Seals intact? Received on ice? COC/Labels complete/accurate? Container in good condition?

SAMPLED BY (Please Print): Walt Pryor

Project Comments: * 24 hr TAT *

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	Walt Pryor	7/2/18	1600	2	[signature]	7/2	1600
3	[signature]	7/2	1655	4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	7/2/2018	2000
7				8			
9				10			

Data Deliverables: ☐ Standard ☐ CLP-like ☐ NJ-Reduced ☐ NJ-Full ☐ other
EDDs Required? ☐ If yes, format type:
DOD Criteria Required?

SDWA Forms? yes ☐ yes ☐ yes ☐ yes ☐
State Samples Collected In? ND ☐ NJ ☐ NY ☐ PA ☐
Other
Enter PWSID No.

ALS FIELD SERVICES: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment ☐ Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY Rev 01-2013

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323898 TLG025|112JC08424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2323898001	DMW-16D-070218	Water	7/2/2018 09:00	7/2/2018 20:00	Collected by Client
2323898002	MSA-MW-53-070218	Water	7/2/2018 11:55	7/2/2018 20:00	Collected by Client
2323898003	MSA-MW-53I-070218	Water	7/2/2018 13:25	7/2/2018 20:00	Collected by Client
2323898004	DMW-17D-070218	Water	7/2/2018 14:05	7/2/2018 20:00	Collected by Client

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2323898 TLG025|112JC08424

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2323898 TLG025|112JC08424

Lab ID	Sample ID	Analysis Method	Prep Method
2323898001	DMW-16D-070218	EPA 218.6	
2323898002	MSA-MW-53-070218	EPA 218.6	
2323898003	MSA-MW-53I-070218	EPA 218.6	
2323898004	DMW-17D-070218	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Sample Description

DMW-16D-070218

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG025
Units: ug/L
Lab Sample ID: 2323898001
Lab MS Sample ID: 2768573
Lab MSD Sample ID: 2768574

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.14	4.8	93.5		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.9	95.9		90 - 110	2.4		20

(1) The following qualifiers are used:

* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG025

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2768569	Hexavalent Chromium	MB	QC-Water	07/03/2018 02:12	0.25	U	ug/L
2768576	Hexavalent Chromium	MB	QC-Water	07/03/2018 04:08	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No.: TLG025

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2768571	Hexavalent Chromium	CCVL	07/03/2018 02:31	5	4.6	92.4		90 - 110
2768575	Hexavalent Chromium	CCVH	07/03/2018 03:58	20	19.4	97		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG025

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2768570	Hexavalent Chromium	MRL	07/03/2018 02:21	0.25	0.23	91.6		50 - 150
2768572	Hexavalent Chromium	LCS	07/03/2018 02:51	10	9.5	95.1		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Sample Description
DMW-16D-070218

Form 3A
Matrix Spike and Matrix Spike Duplicate Recovery Summary

Analysis Method: EPA 218.6
Matrix (soil/water): Water

SDG No.: TLG025
Units: ug/L
Lab Sample ID: 2323898001
Lab MS Sample ID: 2768573
Lab MSD Sample ID: 2768574

Analyte	Spike Added	Sample Concentration	MS Concentration	MS Recovery (%)	(1)	Acceptable Limits (%)
Hexavalent Chromium	5	0.14	4.8	93.5		90 - 110

Analyte	Spike Added	MSD Concentration	MSD Recovery (%)	(1)	Acceptable Limits (%)	RPD (%)	(1)	Acc. Lim. (%)
Hexavalent Chromium	5	4.9	95.9		90 - 110	2.4		20

(1) The following qualifiers are used:

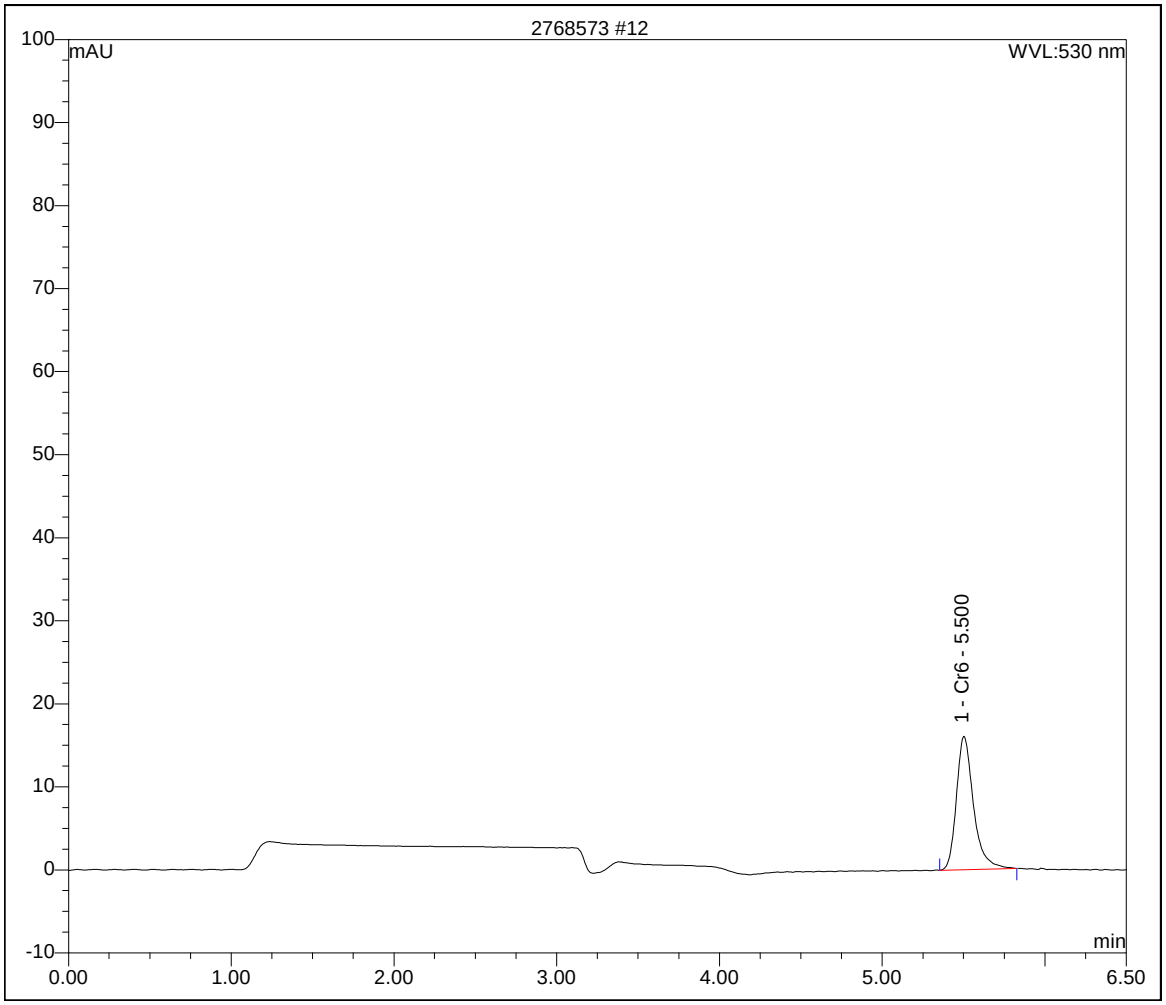
* : Values outside of acceptable limits
D : Spikes diluted out

Comments:

Peak Integration Report

Sample Name:	**2768573**	*Dilution:*	**1**
Sample Type:	**MS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/03/18 03:11**	*Batch:*	**206884**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**070318**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

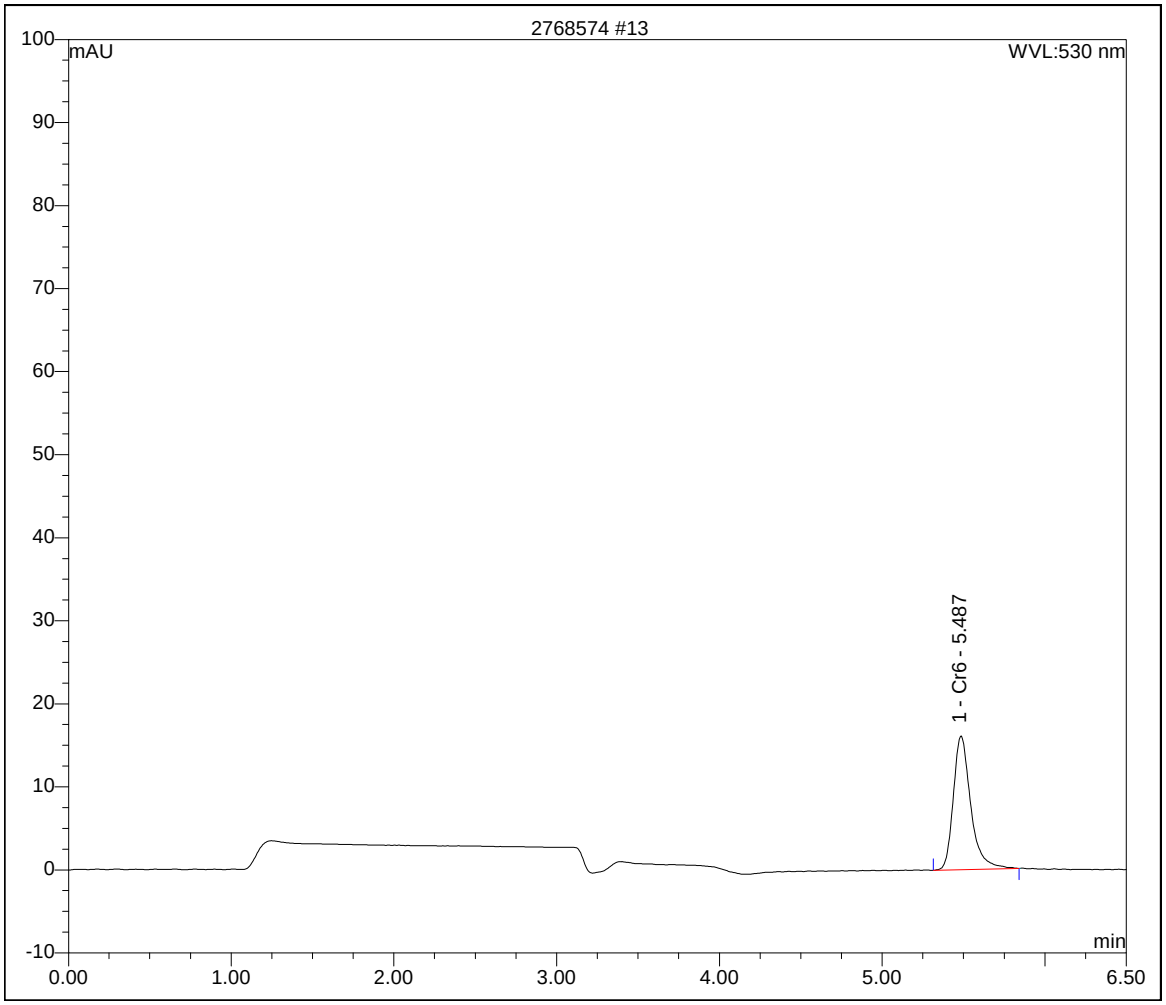
No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.50	Cr6	1.951	16.068	4.82
		TOTAL:	1.95	16.07	4.82



Peak Integration Report

Sample Name:	**2768574**	*Dilution:*	**1**
Sample Type:	**MSD**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/03/18 03:21**	*Batch:*	**206884**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**070318**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.49	Cr6	1.998	16.084	4.93
		TOTAL:	2.00	16.08	4.93



Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No.: TLG025

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2768571	Hexavalent Chromium	CCVL	07/03/2018 02:31	5	4.6	92.4		90 - 110
2768575	Hexavalent Chromium	CCVH	07/03/2018 03:58	20	19.4	97		90 - 110

(1) The following qualifiers are used:

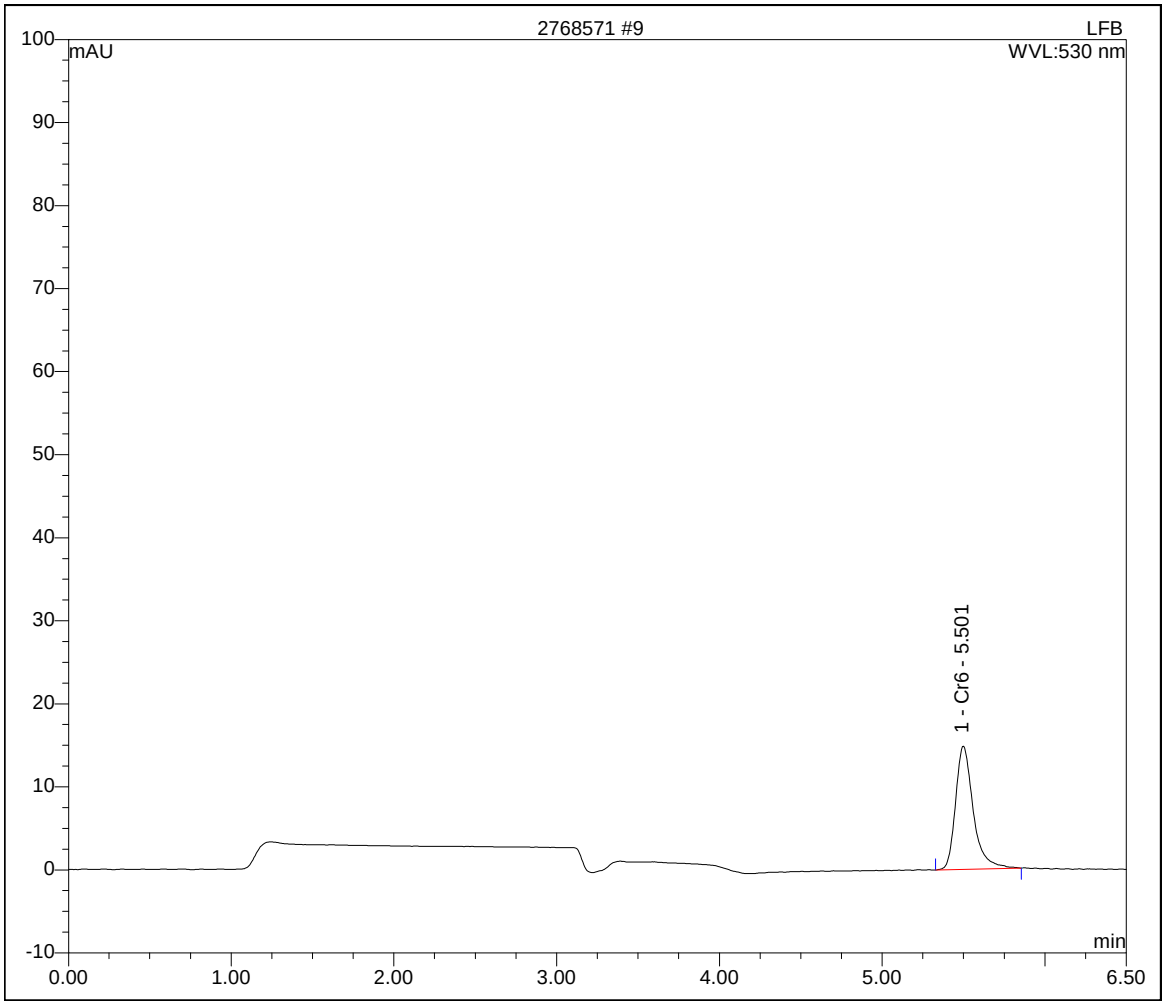
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2768571**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/03/18 02:31**	*Batch:*	**206884**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**070318**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.50	Cr6	1.871	14.852	4.62
		TOTAL:	1.87	14.85	4.62 √



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG025

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2768570	Hexavalent Chromium	MRL	07/03/2018 02:21	0.25	0.23	91.6		50 - 150
2768572	Hexavalent Chromium	LCS	07/03/2018 02:51	10	9.5	95.1		90 - 110

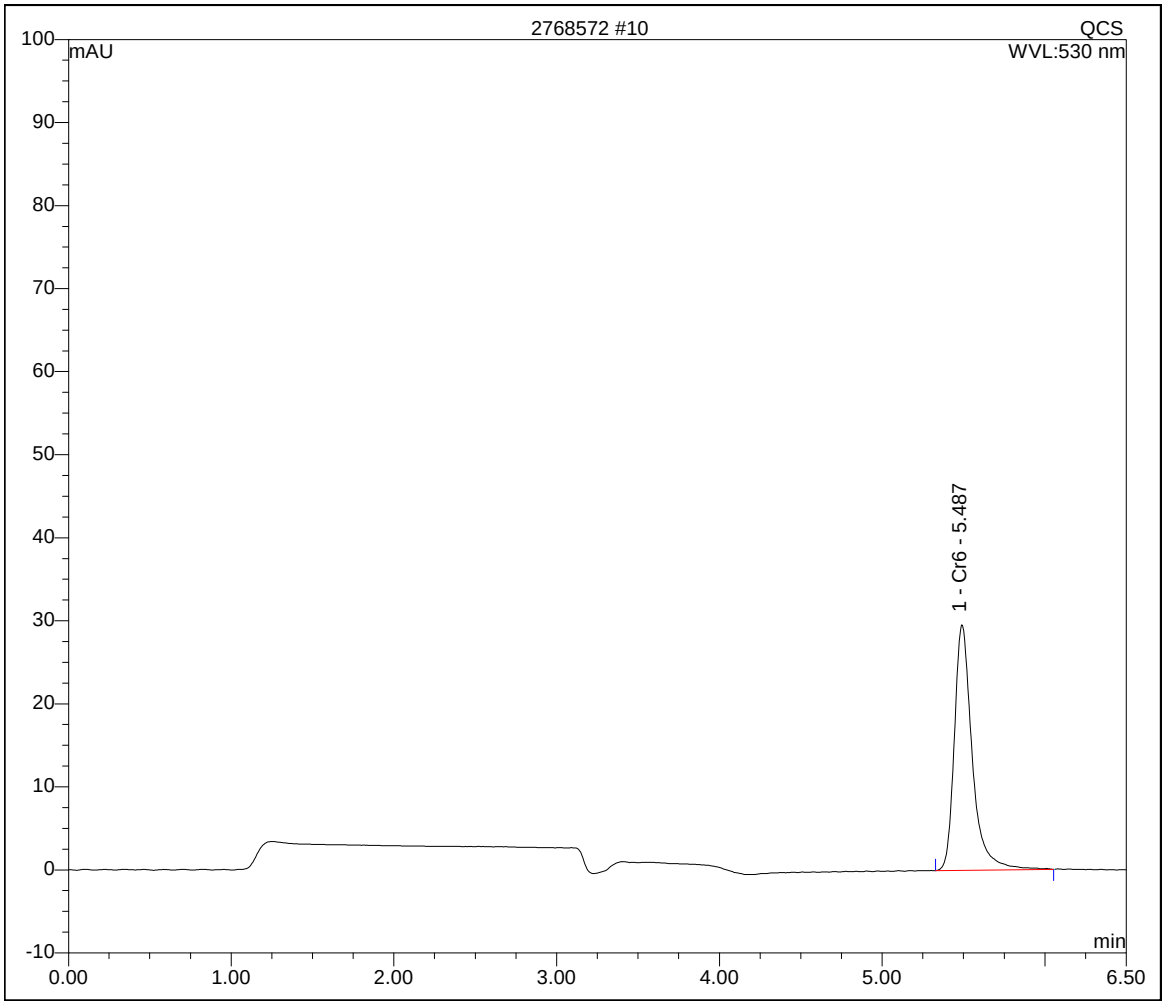
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2768572**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/03/18 02:51**	*Batch:*	**206884**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**070318**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.49	Cr6	3.767	29.553	9.51
		TOTAL:	3.77	29.55	9.51



ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2323898 TLG025|112JC08424

Lab ID: **2323898001** Date Collected: 7/2/2018 09:00 Matrix: Water

Sample ID: **DMW-16D-070218** Date Received: 7/2/2018 20:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Hexavalent Chromium	0.14J	J	ug/L	0.25	0.047	EPA 218.6		7/3/18 03:02	MBW	A

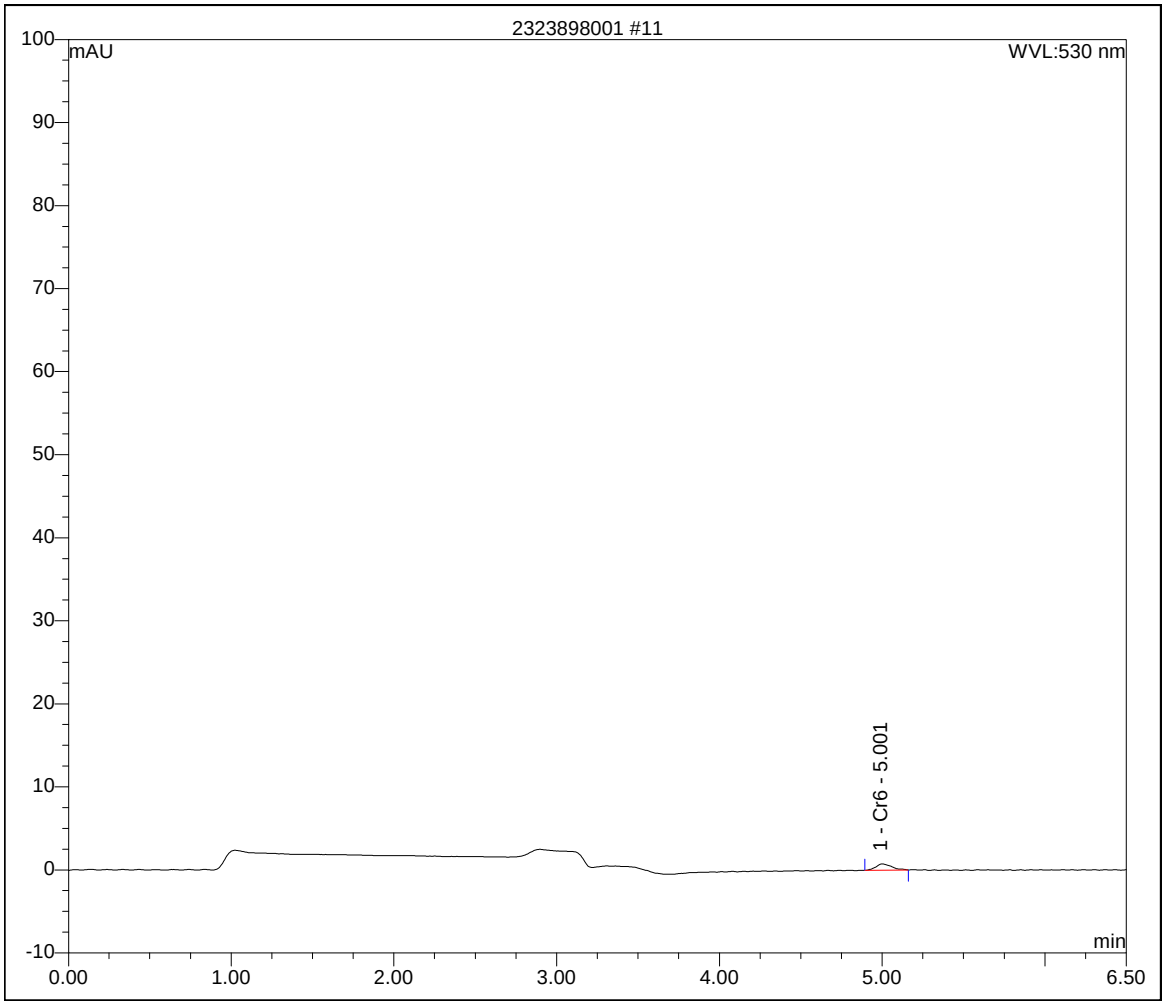
Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

Peak Integration Report

Sample Name:	**2323898001**	*Dilution:*	**1**
Sample Type:	**SAMPLE**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/03/18 03:02**	*Batch:*	**206884**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**070318**	*InitialCal:*	**062918**
Sequence2:		*Method:*	**218_6_062918**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.00	Cr6	0.085	0.760	0.14
		TOTAL:	0.09	0.76	0.14



Tetra Tech, Inc.

ALS-Middletown
Case Narrative
TLG-027

Sample Management

This report contains the results of the analysis of one (1) water sample collected on July 9, 2018. Analytical results and quality control information are summarized in this data package.

Sample Receipt

The sample arrived at ALS via courier on July 9, 2018. Upon receipt, the sample was inspected and compared to the Chain of Custody. Sample temperature was documented on the enclosed Chain of Custody. The sample was received intact and properly preserved, unless noted on the enclosed Certificate of Analysis and/or Chain of Custody.

Hexavalent Chromium by EPA Method 218.6

Sample handling. Thirty-six (36) aqueous samples were analyzed for hexavalent chromium by EPA Method 218.6. The samples were pH adjusted using ammonium sulfate buffer to a range of 9.3-9.7 and analyzed within the 28-day hold time.

Calibration. A monthly calibration was properly established on instrument IC#4 on 7/10/2018. Continuing calibration verification standards were analyzed to verify the calibration. The standards were within the QC limits.

Blanks. Method blanks were analyzed with the samples. Hexavalent chromium was not detected above the reporting limit of 0.25 µg/L in the blanks.

Laboratory Control Samples. Laboratory control samples identified as 2771924 and 2771926 were analyzed with the samples. All recoveries were within QC criteria.

Spikes. Matrix spike and matrix spike duplicate analyses were not performed on any samples from this data deliverable.

Wednesday, July 11, 2018 8:53:21 AM

ALS Environmental
34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Courier:

Tracking #: MD180709003

23251108

Co. Name: Tetra Tech INC

Contact (Report to): Tony Apanavage Phone:

Address: 20251 Century Blvd STE 200
Germantown, md 20874

Bill to (if different than Report to): Same PO#:

Project Name/#: 112FCO9424 ALS Quote #:

TAT: Normal-Standard TAT is 10-12 business days. Date Required:
Rush-Subject to ALS approval and surcharges. Approved By:

Email? -Y

Fax? -Y No.:

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	***Container Type	***Container Size	*** Preservative	Hex Chrom (218.6)								Enter Number of Containers Per Analysis
						Poly	125	C06									
1 MSA-MW-29D-070918		7/9/18	1450	G	GW				1								
2																	
3																	
4																	
5																	
6																	
7																	
8																	

ANALYSES/METHOD REQUESTED

(complete if Sample Received by)
Performed by: KM
Cooler Temp: 2 °C
Therm. ID: 402
No. of Coolers:
Notes:

Circle appropriate Y or N.	Container in good condition?	COC/Labels complete/accurate?	Received on Ice?	(if present) Seals intact?	Custody seals Present?
N	N	N	N	N	N
Y	Y	Y	Y	Y	Y

SAMPLED BY (Please Print): Walt Payon

Project Comments: * 24HR TAT *

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	7/9/18	1500	2	7/9/18	1700
3	7/9/18	2210	4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6	7/10/18	2040
7			8		
9			10		

Data Deliverables: Standard; CLP-like; NJ-Reduced; NJ-Full; If yes, format type:

EDDs Required?

DOD Criteria Required?

SDWA Forms? ⇨ yes; yes; yes; yes

State Samples Collected In? MD; NJ; NY; PA; Other

ALS FIELD SERVICES: Pickup; Labor; Composite Sampling; Rental Equipment; Other:

* G=Grab; C=Composite

**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2325108 TLG027|112IC08424

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2325108001	MSA-MW-29D-070918	Water	7/9/2018 14:50	7/9/2018 20:40	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incurbator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 2325108 TLG027|112IC08424

Lab ID	Sample ID	Analysis Method	Prep Method
2325108001	MSA-MW-29D-070918	EPA 218.6	

Hexavalent Chromium by Method 218.6 Summary Forms

Form 4B
Inorganic Blank Summary

Analysis Method: EPA 218.6
Instrument: IC-4

SDG No.: TLG027

Sample ID	Analyte	Type	Matrix	Analyzed	Result	Q (1)	Units
2771923	Hexavalent Chromium	MB	QC-Water	07/10/2018 01:14	0.25	U	ug/L
2771940	Hexavalent Chromium	MB	QC-Water	07/10/2018 08:30	0.25	U	ug/L
2771944	Hexavalent Chromium	MB	QC-Water	07/10/2018 10:10	0.25	U	ug/L

(1) The following qualifiers are used:

U: The analyte concentration is less than the reporting limit listed
J: The analyte concentration is less than the reporting limit but greater than the method detection limit

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6 SDG No. TLG027

Instrument ID: IC-4 Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2771925	Hexavalent Chromium	CCVL	07/10/2018 01:32	5	5.1	101		90 - 110
2771939	Hexavalent Chromium	CCVH	07/10/2018 08:21	20	20.6	103		90 - 110
2771943	Hexavalent Chromium	CCVL	07/10/2018 10:01	5	5.4	108		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG027

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2771924	Hexavalent Chromium	MRL	07/10/2018 01:23	0.25	0.24	95.2		50 - 150
2771926	Hexavalent Chromium	LCS	07/10/2018 01:41	10	9.8	97.8		90 - 110

(1) The following qualifiers are used:

* : Values outside of acceptable limits

Comments:

Form 6B
Inorganic Initial and Continuing Calibration Verification Summary

Analysis Method: EPA 218.6

SDG No. TLG027

Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2771925	Hexavalent Chromium	CCVL	07/10/2018 01:32	5	5.1	101		90 - 110
2771939	Hexavalent Chromium	CCVH	07/10/2018 08:21	20	20.6	103		90 - 110
2771943	Hexavalent Chromium	CCVL	07/10/2018 10:01	5	5.4	108		90 - 110

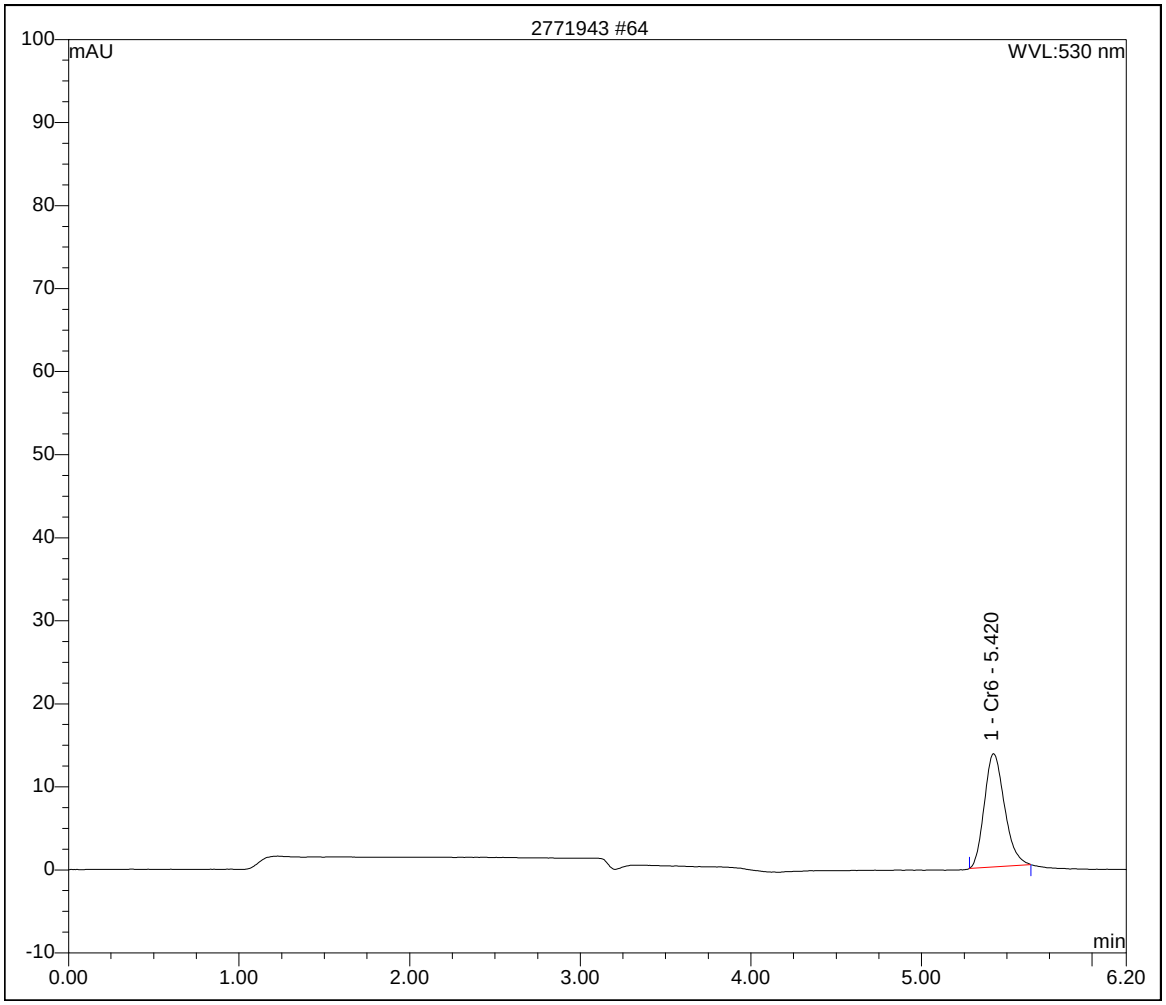
(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2771943**	*Dilution:*	**1**
Sample Type:	**CCVL**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/10/18 10:01**	*Batch:*	**207156**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**071018**	*InitialCal:*	**071018**
Sequence2:		*Method:*	**218_6_071018**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	5.42	Cr6	1.866	13.636	5.41
		TOTAL:	1.87	13.64	5.41



Form 8B
Laboratory Control Sample (LCS) Recovery Summary

Analysis Method: EPA 218.6 SDG No.: TLG027

Matrix (soil/water): QC-Water Instrument ID: IC-4

Units: ug/L

Sample ID	Analyte	Type	Analyzed	True Conc.	Conc. Recovered	Recovery (%)	(1)	Acc. Limit (%)
2771924	Hexavalent Chromium	MRL	07/10/2018 01:23	0.25	0.24	95.2		50 - 150
2771926	Hexavalent Chromium	LCS	07/10/2018 01:41	10	9.8 J	97.8		90 - 110

(1) The following qualifiers are used:
* : Values outside of acceptable limits

Comments:

Peak Integration Report

Sample Name:	**2771926**	*Dilution:*	**1**
Sample Type:	**LCS**	*Analyst:*	**MBW**
Program:	**cr+6**	*Queue:*	**WETC**
Inj. Date/Time:	**07/10/18 01:41**	*Batch:*	**207155**
Instrument:	**IC-4**	*Comment:*	
Sequence1:	**071018**	*InitialCal:*	**071018**
Sequence2:		*Method:*	**218_6_071018**

No.	Time min	Peak Name	Area mAU*min	Height mAU	Amount
1	4.22	Cr6	3.469	22.989	9.78
		TOTAL:	3.47	22.99	9.78

